

# Computer algebra independent integration tests

1-Algebraic-functions/1.2-Trinomial-products/1.2.3-General/1.2.3.5-P-x-d-x-^m-a+b-x^n+c-x^-2-n-^p

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June 29, 2021

Compiled on June 29, 2021 at 11:46am

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# Chapter 1

## Introduction

This report gives the result of running the computer algebra independent integration problems. The listing of the problems are maintained by and can be downloaded from <https://rulebasedintegration.org>

The number of integrals in this report is [ 17 ]. This is test number [ 49 ].

### 1.1 Listing of CAS systems tested

The following systems were tested at this time.

1. Mathematica 12.3 (64 bit) on windows 10.
2. Rubi 4.16.1 in Mathematica 12.1 on windows 10.
3. Maple 2021.1 (64 bit) on windows 10.
4. Maxima 5.44 on Linux. (via sagemath 9.3)
5. Fricas 1.3.7 on Linux (via sagemath 9.3)
6. Giac/Xcas 1.7 on Linux. (via sagemath 9.3)
7. Sympy 1.8 under Python 3.8.8 using Anaconda distribution on Ubuntu.
8. Mupad using Matlab 2021a with Symbolic Math Toolbox Version 8.7 under windows 10 (64 bit)

Maxima, Fricas and Giac/Xcas were called from inside SageMath. This was done using SageMath integrate command by changing the name of the algorithm to use the different CAS systems.

Sympy was called directly using Python.

### 1.2 Results

Important note: A number of problems in this test suite have no antiderivative in closed form. This means the antiderivative of these integrals can not be expressed in terms of elementary, special functions or Hypergeometric $2F1$  functions. RootSum and RootOf are not allowed.

If a CAS returns the above integral unevaluated within the time limit, then the result is counted as passed and assigned an A grade.

However, if CAS times out, then it is assigned an F grade even if the integral is not integrable, as this implies CAS could not determine that the integral is not integrable in the time limit.

If a CAS returns an antiderivative to such an integral, it is assigned an A grade automatically and this special result is listed in the introduction section of each individual test report to make it easy to identify as this can be important result to investigate.

The results given in in the table below reflects the above.

System	solved	Failed
Rubi	% 100.00 ( 17 )	% 0.00 ( 0 )
Mathematica	% 82.35 ( 14 )	% 17.65 ( 3 )
Maple	% 11.76 ( 2 )	% 88.24 ( 15 )
Maxima	% 11.76 ( 2 )	% 88.24 ( 15 )
Fricas	% 41.18 ( 7 )	% 58.82 ( 10 )
Sympy	% 5.88 ( 1 )	% 94.12 ( 16 )
Giac	% 23.53 ( 4 )	% 76.47 ( 13 )
Mupad	% 29.41 ( 5 )	% 70.59 ( 12 )

Table 1.1: Percentage solved for each CAS

The table below gives additional break down of the grading of quality of the antiderivatives generated by each CAS. The grading is given using the letters A,B,C and F with A being the best quality. The grading is accomplished by comparing the antiderivative generated with the optimal antiderivatives included in the test suite. The following table describes the meaning of these grades.

grade	description
A	Integral was solved and antiderivative is optimal in quality and leaf size.
B	Integral was solved and antiderivative is optimal in quality but leaf size is larger than twice the optimal antiderivatives leaf size.
C	Integral was solved and antiderivative is non-optimal in quality. This can be due to one or more of the following reasons <ol style="list-style-type: none"> <li>1. antiderivative contains a hypergeometric function and the optimal antiderivative does not.</li> <li>2. antiderivative contains a special function and the optimal antiderivative does not.</li> <li>3. antiderivative contains the imaginary unit and the optimal antiderivative does not.</li> </ol>
F	Integral was not solved. Either the integral was returned unevaluated within the time limit, or it timed out, or CAS hanged or crashed or an exception was raised.

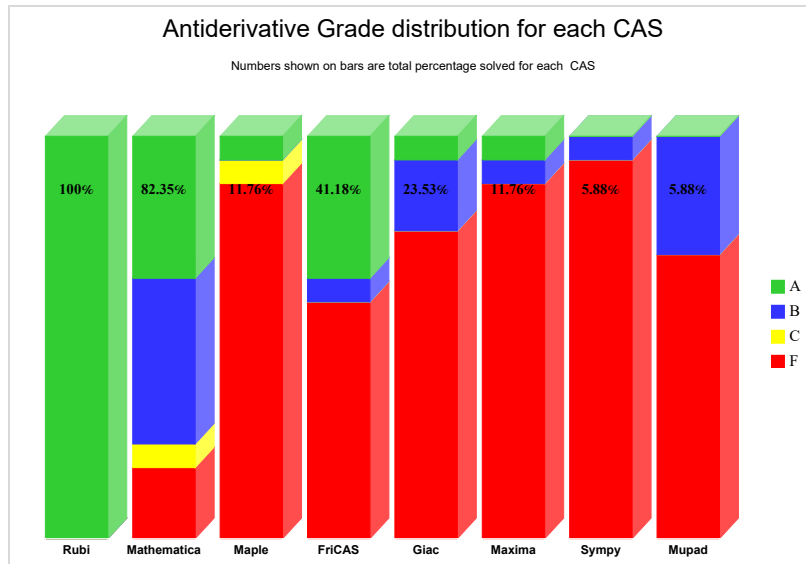
Table 1.2: Description of grading applied to integration result

Grading is implemented for all CAS systems. Based on the above, the following table summarizes the grading for this test suite.

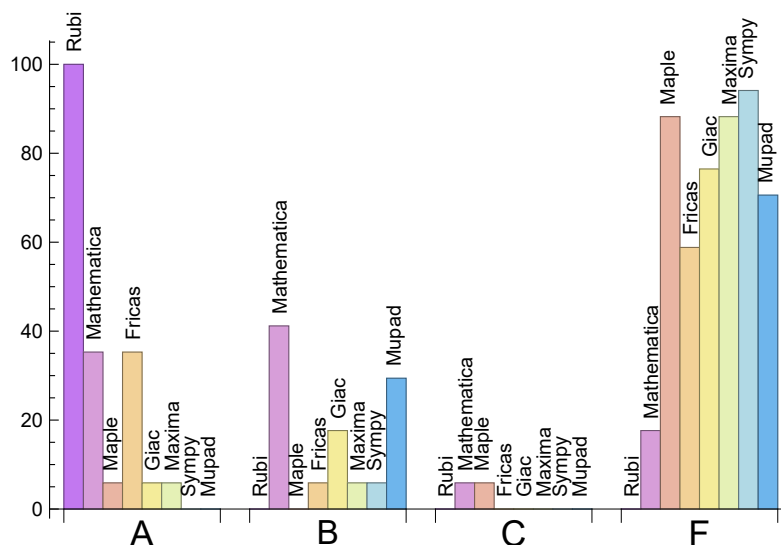
System	% A grade	% B grade	% C grade	% F grade
Rubi	100.00	0.00	0.00	0.00
Mathematica	35.29	41.18	5.88	17.65
Maple	5.88	0.00	5.88	88.24
Maxima	5.88	5.88	0.00	88.24
Fricas	35.29	5.88	0.00	58.82
Sympy	0.00	5.88	0.00	94.12
Giac	5.88	17.65	0.00	76.47
Mupad	0.00	29.41	0.00	70.59

Table 1.3: Antiderivative Grade distribution of each CAS

The following is a Bar chart illustration of the data in the above table.



The figure below compares the CAS systems for each grade level.



The following table shows the distribution of the different types of failure for each CAS. There are 3 types of reasons why it can fail. The first is when CAS returns back the input within the time limit, which means it could not solve it. This the typical normal failure F .

The second is due to time out. CAS could not solve the integral within the 3 minutes time limit which is assigned F(-1).

The third is due to an exception generated. Assigned F(-2). This most likely indicates an interface problem between sagemath and the CAS (applicable only to FriCAS, Maxima and Giac) or it could be an indication of an internal error in CAS. This type of error requires more investigations to determine the cause.

System	Number failed	Percentage normal failure	Percentage time-out failure	Percentage exception failure
Rubi	0	0.00 %	0.00 %	0.00 %
Mathematica	3	0.00 %	100.00 %	0.00 %
Maple	15	100.00 %	0.00 %	0.00 %
Maxima	15	100.00 %	0.00 %	0.00 %
Fricas	10	90.00 %	10.00 %	0.00 %
Sympy	16	18.75 %	81.25 %	0.00 %
Giac	13	92.31 %	7.69 %	0.00 %
Mupad	12	100.00 %	0.00 %	0.00 %

Table 1.4: Time and leaf size performance for each CAS

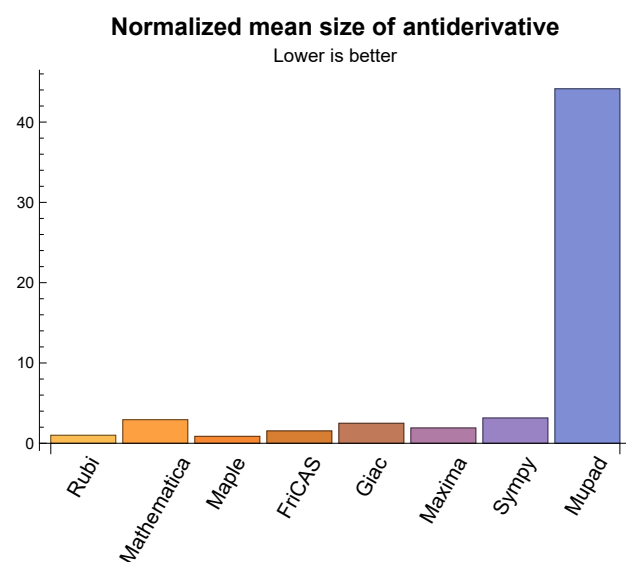
## 1.3 Performance

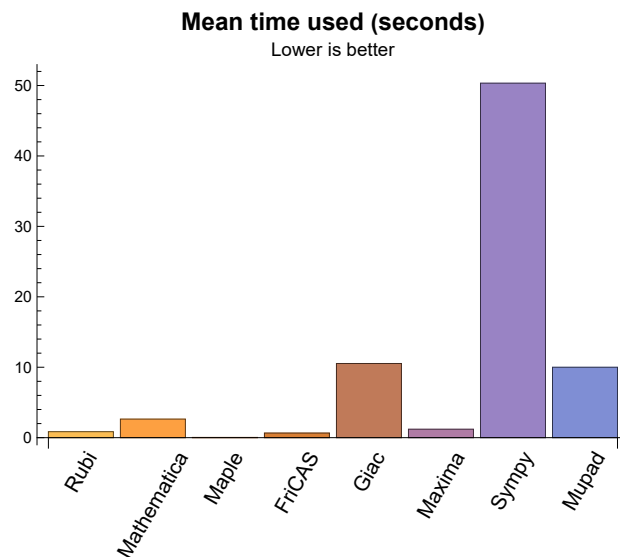
The table below summarizes the performance of each CAS system in terms of CPU time and leaf size of results.

System	Mean time (sec)	Mean size	Normalized mean	Median size	Normalized median
Rubi	0.85	457.12	1.00	263.00	1.00
Mathematica	2.64	2029.07	2.93	490.50	2.00
Maple	0.03	83.50	0.87	83.50	0.87
Maxima	1.20	47.50	1.91	47.50	1.91
Fricas	0.66	85.00	1.54	69.00	1.45
Sympy	50.33	63.00	3.15	63.00	3.15
Giac	10.53	97.00	2.49	81.00	2.90
Mupad	10.00	71874.60	44.15	50.00	1.72

Table 1.5: Time and leaf size performance for each CAS

The following are bar charts for the normalized leafsize and time used columns from the above table.





## 1.4 list of integrals that has no closed form antiderivative

{}

## 1.5 list of integrals solved by CAS but has no known antiderivative

Rubi {}

Mathematica {}

Maple {}

Maxima {}

Fricas {}

Sympy {}

Giac {}

Mupad {}

## 1.6 list of integrals solved by CAS but failed verification

The following are integrals solved by CAS but the verification phase failed to verify the anti-derivative produced is correct. This does not mean necessarily that the anti-derivative is wrong, as additional methods of verification might be needed, or more time is needed (3 minutes time limit was used). These integrals are listed here to make it easier to do further investigation to determine why it was not possible to verify the result produced.

Rubi {}

Mathematica {8,9}

Maple Verification phase not implemented yet.

Maxima Verification phase not implemented yet.

Fricas Verification phase not implemented yet.



**Sympy** Verification phase not implemented yet.

**Giac** Verification phase not implemented yet.

**Mupad** Verification phase not implemented yet.

## 1.7 Timing

The command `AbsoluteTiming[]` was used in Mathematica to obtain the elapsed time for each integrate call. In Maple, the command `Usage` was used as in the following example

```
cpu_time := Usage(assign ('result_of _int',int(expr,x)),output='realtime')
```

For all other CAS systems, the elapsed time to complete each integral was found by taking the difference between the time after the call has completed from the time before the call was made. This was done using Python's `time.time()` call.

All elapsed times shown are in seconds. A time limit of 3 minutes was used for each integral. If the integrate command did not complete within this time limit, the integral was aborted and considered to have failed and assigned an F grade. The time used by failed integrals due to time out is not counted in the final statistics.

## 1.8 Verification

A verification phase was applied on the result of integration for Rubi and Mathematica. Future version of this report will implement verification for the other CAS systems. For the integrals whose result was not run through a verification phase, it is assumed that the antiderivative produced was correct.

Verification phase has 3 minutes time out. An integral whose result was not verified could still be correct. Further investigation is needed on those integrals which failed verifications. Such integrals are marked in the summary table below and also in each integral separate section so they are easy to identify and locate.

## 1.9 Important notes about some of the results

### 1.9.1 Important note about Maxima results

Since these integrals are run in a batch mode, using an automated script, and by using `sagemath` (SageMath uses Maxima), then any integral where Maxima needs an interactive response from the user to answer a question during evaluation of the integral in order to complete the integration, will fail and is counted as failed.

The exception raised is `ValueError`. Therefore Maxima result below is lower than what could result if Maxima was run directly and each question Maxima asks was answered correctly.

The percentage of such failures were not counted for each test file, but for an example, for the Timofeev test file, there were about 14 such integrals out of total 705, or about 2 percent. This percentage can be higher or lower depending on the specific input test file.

Such integrals can be identified by looking at the output of the integration in each section for Maxima. The exception message will indicate of the error is due to the interactive question being asked or not.

Maxima integrate was run using SageMath with the following settings set by default

```
'besselexpand : true'
'display2d : false'
'domain : complex'
'keepfloat : true'
```

```
'load(to_poly_solve)'
'load(simplify_sum)'
'load(abs_integrate)' 'load(diag)'
```

SageMath loading of Maxima `abs_integrate` was found to cause some problem. So the following code was added to disable this effect.

```
from sage.interfaces.maxima_lib import maxima_lib
maxima_lib.set('extra_definite_integration_methods', '[]')
maxima_lib.set('extra_integration_methods', '[]')
```

See <https://ask.sagemath.org/question/43088/integrate-results-that-are-different-from-using-maxima/> for reference.

## 1.9.2 Important note about FriCAS and Giac/X-CAS results

There are Few integrals which failed due to SageMath not able to translate the result back to SageMath syntax and not because these CAS system were not able to do the integrations.

These will fail With error `Exception raised: NotImplementedError`

The number of such cases seems to be very small. About 1 or 2 percent of all integrals.

Hopefully the next version of SageMath will have complete translation of FriCAS and XCAS syntax and I will re-run all the tests again when this happens.

## 1.9.3 Important note about finding leaf size of antiderivative

For Mathematica, Rubi and Maple, the builtin system function `LeafSize` is used to find the leaf size of each antiderivative.

The other CAS systems (SageMath and Sympy) do not have special builtin function for this purpose at this time. Therefore the leaf size for Fricas and Sympy and Giac antiderivatives is determined using the following function, thanks to user `slelievre` at [https://ask.sagemath.org/question/57123/could-we-have-a-leaf\\_count-function-in-base-sagemath/](https://ask.sagemath.org/question/57123/could-we-have-a-leaf_count-function-in-base-sagemath/)

```
def tree_size(expr):
    r"""
    Return the tree size of this expression.
    """
    if expr not in SR:
        # deal with lists, tuples, vectors
        return 1 + sum(tree_size(a) for a in expr)
    expr = SR(expr)
    x, aa = expr.operator(), expr.operands()
    if x is None:
        return 1
    else:
        return 1 + sum(tree_size(a) for a in aa)
```

For Sympy, which is called directly from Python, the following code is used to obtain the leafsize of its result

```
try:
    # 1.7 is a fudge factor since it is low side from actual leaf count
    leafCount = round(1.7*count_ops(anti))

except Exception as ee:
    leafCount = 1
```

## 1.9.4 Important note about Mupad results

Matlab's symbolic toolbox does not have a leaf count function to measure the size of the antiderivative, Maple was used to determine the leaf size of Mupad output by post processing.

Currently no grading of the antiderivative for Mupad is implemented. If it can integrate the problem, it was assigned a B grade automatically as a placeholder. In the future, when grading function is implemented for Mupad, the tests will be rerun again.

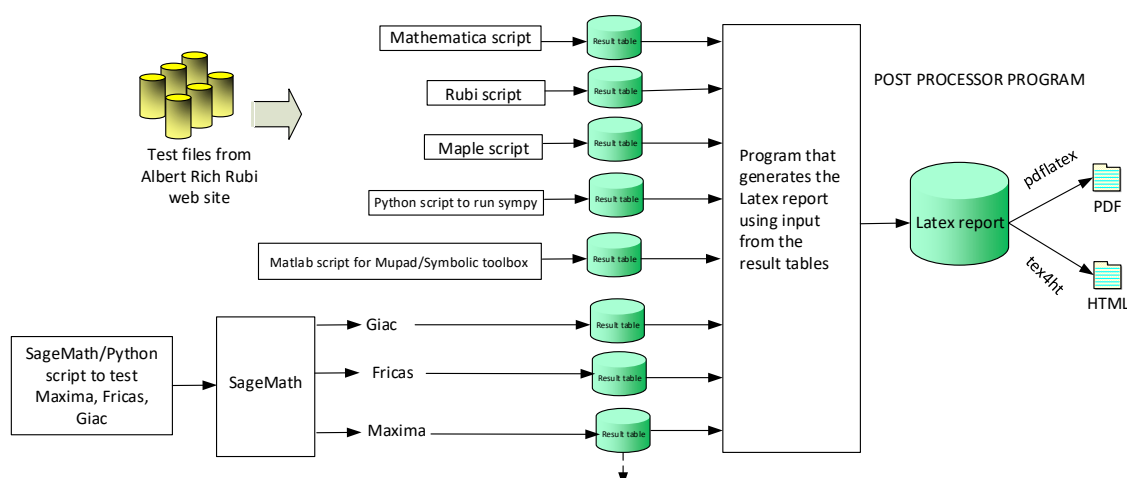
The following is an example of using Matlab's symbolic toolbox (Mupad) to solve an integral

```
integrand = evalin(symengine, 'cos(x)*sin(x)')
the_variable = evalin(symengine, 'x')
anti = int(integrand, the_variable)
```

Which gives  $\sin(x)^2/2$

## 1.10 Design of the test system

The following diagram gives a high level view of the current test build system.



**One record (line) per one integral result. The line is CSV comma separated. This is description of each record**

1. integer. the problem number.
2. integer. 0 for failed, 1 for passed, -1 for timeout, -2 for CAS specific exception. (this is not the grade field)
3. integer. Leaf size of result.
4. integer. Leaf size of the optimal antiderivative.
5. number. CPU time used to solve this integral. 0 if failed.
6. string. The integral in Latex format
7. string. The input used in CAS own syntax.
8. string. The result (antiderivative) produced by CAS in Latex format
9. string. The optimal antiderivative in Latex format.
10. integer. 0 or 1. Indicates if problem has known antiderivative or not
11. String. The result (antiderivative) in CAS own syntax.
12. String. The grade of the antiderivative. Can be "A", "B", "C", or "F"
- The following field present only in Rubi and Mathematica Tables*
13. integer. 1 if result was verified or 0 if not verified.
- The following fields present only in Rubi Tables*
14. integer. Number of rules used.
15. integer. Integrand leaf size.
16. real number. Ratio of field 14 over field 15
17. integer. 1 if result was verified or 0 if not verified.
18. String of form "{n,n,..}" which is list of the rules used by Rubi

**High level overview of the CAS independent integration test build system**



# Chapter 2

## detailed summary tables of results

### 2.1 List of integrals sorted by grade for each CAS

#### 2.1.1 Rubi

A grade: { 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17 }

B grade: { }

C grade: { }

F grade: { }

#### 2.1.2 Mathematica

A grade: { 3, 6, 11, 12, 13, 16 }

B grade: { 2, 4, 5, 7, 8, 9, 17 }

C grade: { 1 }

F grade: { 10, 14, 15 }

#### 2.1.3 Maple

A grade: { 11 }

B grade: { }

C grade: { 1 }

F grade: { 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 13, 14, 15, 16, 17 }

#### 2.1.4 Maxima

A grade: { 11 }

B grade: { 16 }

C grade: { }

F grade: { 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 13, 14, 15, 17 }

#### 2.1.5 FriCAS

A grade: { 10, 11, 12, 13, 14, 15 }

B grade: { 16 }

C grade: { }

F grade: { 1, 2, 3, 4, 5, 6, 7, 8, 9, 17 }

## 2.1.6 Sympy

A grade: { }

B grade: { 11 }

C grade: { }

F grade: { 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 13, 14, 15, 16, 17 }

## 2.1.7 Giac

A grade: { 12 }

B grade: { 11, 14, 16 }

C grade: { }

F grade: { 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 13, 15, 17 }

## 2.1.8 Mupad

A grade: { }

B grade: { 1, 11, 12, 14, 16 }

C grade: { }

F grade: { 2, 3, 4, 5, 6, 7, 8, 9, 10, 13, 15, 17 }

## 2.2 Detailed conclusion table per each integral for all CAS systems

Detailed conclusion table per each integral is given by table below. The elapsed time is in seconds. For failed result it is given as F(-1) if the failure was due to timeout. It is given as F(-2) if the failure was due to an exception being raised, which could indicate a bug in the system. If the failure was due to integral not being evaluated within the time limit, then it is given just an F.

In this table, the column **normalized size** is defined as  $\frac{\text{antiderivative leaf size}}{\text{optimal antiderivative leaf size}}$

Problem 1	Optimal	Rubi	Mathematica	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	A	A	C	C	F	F(-1)	F(-1)	F(-1)	B
verified	N/A	Yes	Yes	TBD	TBD	TBD	TBD	TBD	TBD
size	1668	1668	223	134	0	0	0	0	359169
normalized size	1	1.00	0.13	0.08	0.00	0.00	0.00	0.00	215.33
time (sec)	N/A	4.008	1.681	0.017	0.000	0.000	0.000	0.000	40.553
Problem 2	Optimal	Rubi	Mathematica	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	A	A	B	F	F	F	F	F	F
verified	N/A	Yes	Yes	TBD	TBD	TBD	TBD	TBD	TBD
size	124	124	261	0	0	0	0	0	-1
normalized size	1	1.00	2.10	0.00	0.00	0.00	0.00	0.00	-0.01
time (sec)	N/A	0.085	0.272	0.000	0.000	0.649	0.000	0.000	0.000
Problem 3	Optimal	Rubi	Mathematica	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	A	A	A	F	F	F	F	F	F
verified	N/A	Yes	Yes	TBD	TBD	TBD	TBD	TBD	TBD
size	263	263	525	0	0	0	0	0	-1
normalized size	1	1.00	2.00	0.00	0.00	0.00	0.00	0.00	-0.00
time (sec)	N/A	0.255	1.191	0.030	0.000	0.906	0.000	0.000	0.000
Problem 4	Optimal	Rubi	Mathematica	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	A	A	B	F	F	F	F	F	F
verified	N/A	Yes	Yes	TBD	TBD	TBD	TBD	TBD	TBD
size	404	404	834	0	0	0	0	0	-1
normalized size	1	1.00	2.06	0.00	0.00	0.00	0.00	0.00	-0.00
time (sec)	N/A	0.277	1.126	0.036	0.000	0.808	0.000	0.000	0.000
Problem 5	Optimal	Rubi	Mathematica	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	A	A	B	F	F	F	F(-1)	F	F
verified	N/A	Yes	Yes	TBD	TBD	TBD	TBD	TBD	TBD
size	545	545	1093	0	0	0	0	0	-1
normalized size	1	1.00	2.01	0.00	0.00	0.00	0.00	0.00	-0.00
time (sec)	N/A	0.351	1.575	0.042	0.000	0.871	0.000	0.000	0.000

Problem 6	Optimal	Rubi	Mathematica	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	A	A	A	F	F	F	F(-1)	F	F
verified	N/A	Yes	Yes	TBD	TBD	TBD	TBD	TBD	TBD
size	283	283	456	0	0	0	0	0	-1
normalized size	1	1.00	1.61	0.00	0.00	0.00	0.00	0.00	-0.00
time (sec)	N/A	0.385	3.532	0.066	0.000	0.851	0.000	0.000	0.000
Problem 7	Optimal	Rubi	Mathematica	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	A	A	B	F	F	F	F(-1)	F	F
verified	N/A	Yes	Yes	TBD	TBD	TBD	TBD	TBD	TBD
size	738	738	4162	0	0	0	0	0	-1
normalized size	1	1.00	5.64	0.00	0.00	0.00	0.00	0.00	-0.00
time (sec)	N/A	1.337	6.393	0.089	0.000	0.862	0.000	0.000	0.000
Problem 8	Optimal	Rubi	Mathematica	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	A	A	B	F	F	F	F(-1)	F	F
verified	N/A	Yes	NO	TBD	TBD	TBD	TBD	TBD	TBD
size	1194	1194	6525	0	0	0	0	0	-1
normalized size	1	1.00	5.46	0.00	0.00	0.00	0.00	0.00	-0.00
time (sec)	N/A	2.053	6.513	0.073	0.000	0.753	0.000	0.000	0.000
Problem 9	Optimal	Rubi	Mathematica	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	A	A	B	F	F	F	F(-1)	F	F
verified	N/A	Yes	NO	TBD	TBD	TBD	TBD	TBD	TBD
size	1654	1654	8737	0	0	0	0	0	-1
normalized size	1	1.00	5.28	0.00	0.00	0.00	0.00	0.00	-0.00
time (sec)	N/A	2.909	6.623	0.086	0.000	0.588	0.000	0.000	0.000
Problem 10	Optimal	Rubi	Mathematica	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	A	A	F(-1)	F	F	A	F(-1)	F	F
verified	N/A	Yes	N/A	TBD	TBD	TBD	TBD	TBD	TBD
size	75	75	0	0	0	137	0	0	-1
normalized size	1	1.00	0.00	0.00	0.00	1.83	0.00	0.00	-0.01
time (sec)	N/A	0.531	0.000	0.066	0.000	0.762	0.000	0.000	0.000
Problem 11	Optimal	Rubi	Mathematica	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	A	A	A	A	A	A	B	B	B
verified	N/A	Yes	Yes	TBD	TBD	TBD	TBD	TBD	TBD
size	20	20	19	33	35	35	63	66	35
normalized size	1	1.00	0.95	1.65	1.75	1.75	3.15	3.30	1.75
time (sec)	N/A	0.024	0.333	0.051	1.219	0.820	50.333	0.841	2.181



Problem 12	Optimal	Rubi	Mathematica	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	A	A	A	F	F	A	F(-1)	A	B
verified	N/A	Yes	Yes	TBD	TBD	TBD	TBD	TBD	TBD
size	45	45	45	0	0	48	0	39	39
normalized size	1	1.00	1.00	0.00	0.00	1.07	0.00	0.87	0.87
time (sec)	N/A	0.079	0.214	0.095	0.000	0.641	0.000	35.009	2.557
Problem 13	Optimal	Rubi	Mathematica	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	A	A	A	F	F	A	F(-1)	F	F
verified	N/A	Yes	Yes	TBD	TBD	TBD	TBD	TBD	TBD
size	65	65	64	0	0	69	0	0	-1
normalized size	1	1.00	0.98	0.00	0.00	1.06	0.00	0.00	-0.02
time (sec)	N/A	0.156	0.144	0.089	0.000	0.455	0.000	0.000	0.000
Problem 14	Optimal	Rubi	Mathematica	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	A	A	F(-1)	F	F	A	F(-1)	B	B
verified	N/A	Yes	N/A	TBD	TBD	TBD	TBD	TBD	TBD
size	75	75	0	0	0	109	0	187	80
normalized size	1	1.00	0.00	0.00	0.00	1.45	0.00	2.49	1.07
time (sec)	N/A	0.108	0.000	0.029	0.000	0.752	0.000	4.721	2.454
Problem 15	Optimal	Rubi	Mathematica	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	A	A	F(-1)	F	F	A	F(-1)	F	F
verified	N/A	Yes	N/A	TBD	TBD	TBD	TBD	TBD	TBD
size	95	95	0	0	0	132	0	0	-1
normalized size	1	1.00	0.00	0.00	0.00	1.39	0.00	0.00	-0.01
time (sec)	N/A	0.217	0.000	0.025	0.000	0.636	0.000	0.000	0.000
Problem 16	Optimal	Rubi	Mathematica	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	A	A	A	F	B	B	F(-1)	B	B
verified	N/A	Yes	Yes	TBD	TBD	TBD	TBD	TBD	TBD
size	29	29	24	0	60	65	0	96	50
normalized size	1	1.00	0.83	0.00	2.07	2.24	0.00	3.31	1.72
time (sec)	N/A	0.071	0.434	0.058	1.181	0.533	0.000	1.555	2.245
Problem 17	Optimal	Rubi	Mathematica	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	A	A	B	F	F	F	F(-1)	F	F
verified	N/A	Yes	Yes	TBD	TBD	TBD	TBD	TBD	TBD
size	494	494	5439	0	0	0	0	0	-1
normalized size	1	1.00	11.01	0.00	0.00	0.00	0.00	0.00	-0.00
time (sec)	N/A	1.584	6.894	0.031	0.000	0.714	0.000	0.000	0.000

## 2.3 Detailed conclusion table specific for Rubi results

The following table is specific to Rubi. It gives additional statistics for each integral. the column **steps** is the number of steps used by Rubi to obtain the antiderivative. The **rules** column is the number of unique rules used. The **integrand size** column is the leaf size of the integrand. Finally the ratio  $\frac{\text{number of rules}}{\text{integrand size}}$  is given. The larger this ratio is, the harder the integral was to solve. In this test, problem number [7] had the largest ratio of [.3636]

Table 2.1: Rubi specific breakdown of results for each integral

#	grade	number of steps used	number of unique rules	normalized antiderivative leaf size	integrand leaf size	$\frac{\text{number of rules}}{\text{integrand leaf size}}$
1	A	37	16	1.00	55	0.291
2	A	3	2	1.00	16	0.125
3	A	9	4	1.00	22	0.182
4	A	11	4	1.00	27	0.148
5	A	13	4	1.00	32	0.125
6	A	4	3	1.00	16	0.188
7	A	15	8	1.00	22	0.364
8	A	24	8	1.00	27	0.296
9	A	33	8	1.00	32	0.250
10	A	2	2	1.00	63	0.032
11	A	1	1	1.00	45	0.022
12	A	1	1	1.00	52	0.019
13	A	2	2	1.00	54	0.037
14	A	1	1	1.00	61	0.016
15	A	2	2	1.00	63	0.032
16	A	1	1	1.00	56	0.018
17	A	4	3	1.00	38	0.079

# Chapter 3

## Listing of integrals

**3.1** 
$$\int \frac{d+ex+fx^2+gx^3+hx^4+jx^5+kx^6+lx^7+mx^8}{a+bx^3+cx^6} dx$$

**Optimal.** Leaf size=1668

$$\frac{mx^3}{3c} + \frac{lx^2}{2c} + \frac{kx}{c} - \frac{\left(g - \frac{bk}{c} + \frac{kb^2+2c^2d-c(bg+2ak)}{c\sqrt{b^2-4ac}}\right) \tan^{-1}\left(\frac{1-\frac{2\sqrt[3]{2}\sqrt[3]{cx}}{\sqrt{b-\sqrt{b^2-4ac}}}}{\sqrt{3}}\right) \left(h - \frac{bl}{c} + \frac{lb^2+2c^2e-c(bh+2al)}{c\sqrt{b^2-4ac}}\right) \tan^{-1}\left(\frac{1-\frac{2\sqrt[3]{2}\sqrt[3]{cx}}{\sqrt{b-\sqrt{b^2-4ac}}}}{\sqrt{3}}\right)}{\sqrt[3]{2}\sqrt{3}\sqrt[3]{c}\left(b-\sqrt{b^2-4ac}\right)^{2/3}} - \frac{2^{2/3}\sqrt{3}c^{2/3}\sqrt[3]{b-\sqrt{b^2-4ac}}}{\sqrt{3}}$$

[Out]  $k*x/c+1/2*1*x^2/c+1/3*m*x^3/c+1/6*(-b*m+c*j)*\ln(c*x^6+b*x^3+a)/c^2+1/6*\ln(2^{1/3}*c^{1/3}*x+(b-(-4*a*c+b^2)^{1/2})^{1/3})*(g-b*k/c+(2*c^2*d+b^2*k-c*(2*a*k+b*g))/c/(-4*a*c+b^2)^{1/2})*2^{2/3}/c^{1/3}/(b-(-4*a*c+b^2)^{1/2})^{2/3}-1/12*\ln(2^{2/3}*c^{2/3}*x^2-2^{1/3}*c^{1/3}*x*(b-(-4*a*c+b^2)^{1/2})^{1/3}+(b-(-4*a*c+b^2)^{1/2})^{2/3})*(g-b*k/c+(2*c^2*d+b^2*k-c*(2*a*k+b*g))/c/(-4*a*c+b^2)^{1/2})*2^{2/3}/c^{1/3}/(b-(-4*a*c+b^2)^{1/2})^{2/3}-1/6*\arctan(1/3*(1-2*2^{1/3}*c^{1/3}*x/(b-(-4*a*c+b^2)^{1/2})^{1/3}))*3^{1/2}*(g-b*k/c+(2*c^2*d+b^2*k-c*(2*a*k+b*g))/c/(-4*a*c+b^2)^{1/2})*2^{2/3}/c^{1/3}*3^{1/2}/(b-(-4*a*c+b^2)^{1/2})^{2/3}-1/6*\ln(2^{1/3}*c^{1/3}*x+(b-(-4*a*c+b^2)^{1/2})^{1/3}))*3^{1/2}*(h-b*l/c+(2*c^2*e+b^2*l-c*(2*a*l+b*h))/c/(-4*a*c+b^2)^{1/2})*2^{1/3}/c^{2/3}/(b-(-4*a*c+b^2)^{1/2})^{1/3}+1/12*\ln(2^{2/3}*c^{2/3}*x^2-2^{1/3}*c^{1/3}*x*(b-(-4*a*c+b^2)^{1/2})^{1/3}+(b-(-4*a*c+b^2)^{1/2})^{2/3})*(h-b*l/c+(2*c^2*e+b^2*l-c*(2*a*l+b*h))/c/(-4*a*c+b^2)^{1/2})*2^{1/3}/c^{2/3}/(b-(-4*a*c+b^2)^{1/2})^{1/3}-1/6*\arctan(1/3*(1-2*2^{1/3}*c^{1/3}*x/(b-(-4*a*c+b^2)^{1/2})^{1/3}))*3^{1/2}*(h-b*l/c+(2*c^2*e+b^2*l-c*(2*a*l+b*h))/c/(-4*a*c+b^2)^{1/2})*2^{1/3}/c^{2/3}*3^{1/2}/(b-(-4*a*c+b^2)^{1/2})^{1/3}-1/3*(-2*a*c*m+b^2*m-b*c*j+2*c^2*f)*\operatorname{arctanh}((2*c*x^3+b)/(-4*a*c+b^2)^{1/2})/c^2/(-4*a*c+b^2)^{1/2}+1/6*\ln(2^{1/3}*c^{1/3}*x+(b+(-4*a*c+b^2)^{1/2})^{1/3})*(g-b*k/c+(2*a*c*k-b^2*k+b*c*g-2*c^2*d)/c/(-4*a*c+b^2)^{1/2})*2^{2/3}/c^{1/3}/(b+(-4*a*c+b^2)^{1/2})^{2/3}-1/12*\ln(2^{2/3}*c^{2/3}*x^2-2^{1/3}*c^{1/3}*x*(b+(-4*a*c+b^2)^{1/2})^{1/3}+(b+(-4*a*c+b^2)^{1/2})^{2/3})*(g-b*k/c+(2*a*c*k-b^2*k+b*c*g-2*c^2*d)/c/(-4*a*c+b^2)^{1/2})*2^{2/3}/c^{1/3}/(b+(-4*a*c+b^2)^{1/2})^{2/3}-1/6*\arctan(1/3*(1-2*2^{1/3}*c^{1/3}*x/(b+(-4*a*c+b^2)^{1/2})^{1/3}))*3^{1/2}*(g-b*k/c+(2*a*c*k-b^2*k+b*c*g-2*c^2*d)/c/(-4*a*c+b^2)^{1/2})*2^{2/3}/c^{1/3}*3^{1/2}/(b+(-4*a*c+b^2)^{1/2})^{2/3}-1/6*\ln(2^{1/3}*c^{1/3}*x+(b+(-4*a*c+b^2)^{1/2})^{1/3}))*3^{1/2}*(h-b*l/c+(2*a*c*l-b^2*l+b*c*h-2*c^2*e)/c/(-4*a*c+b^2)^{1/2})*2^{1/3}/c^{2/3}/(b+(-4*a*c+b^2)^{1/2})^{1/3}+1/12*\ln(2^{2/3}*c^{2/3}*x^2-2^{1/3}*c^{1/3}*x*(b+(-4*a*c+b^2)^{1/2})^{1/3}+(b+(-4*a*c+b^2)^{1/2})^{2/3})*(h-b*l/c+(2*a*c*l-b^2*l+b*c*h-2*c^2*e)/c/(-4*a*c+b^2)^{1/2})*2^{1/3}/c^{2/3}/(b+(-4*a*c+b^2)^{1/2})^{1/3}-1/6*\arctan(1/3*(1-2*2^{1/3}*c^{1/3}*x/(b+(-4*a*c+b^2)^{1/2})^{1/3}))*3^{1/2}*(h-b*l/c+(2*a*c*l-b^2*l+b*c*h-2*c^2*e)/c/(-4*a*c+b^2)^{1/2})*2^{1/3}/c^{2/3}*3^{1/2}/(b+(-4*a*c+b^2)^{1/2})^{1/3}$

**Rubi [A]** time = 4.01, antiderivative size = 1668, normalized size of antiderivative = 1.00, number of steps used = 37, number of rules used = 16, integrand size = 55,  $\frac{\text{number of rules}}{\text{integrand size}} = 0.291$ , Rules used = {1790, 1789, 1422, 200, 31, 634, 617, 204, 628, 1758, 1510, 292, 1745, 1657, 618, 206}

result too large to display

Antiderivative was successfully verified.

[In] Int[(d + e\*x + f\*x^2 + g\*x^3 + h\*x^4 + j\*x^5 + k\*x^6 + l\*x^7 + m\*x^8)/(a + b\*x^3 + c\*x^6), x]

[Out] (k\*x)/c + (1\*x^2)/(2\*c) + (m\*x^3)/(3\*c) - ((g - (b\*k)/c + (2\*c^2\*d + b^2\*k - c\*(b\*g + 2\*a\*k))/(c\*Sqrt[b^2 - 4\*a\*c]))\*ArcTan[(1 - (2\*2^(1/3)\*c^(1/3)\*x)/(b - Sqrt[b^2 - 4\*a\*c])^(1/3))/Sqrt[3]]/(2^(1/3)\*Sqrt[3]\*c^(1/3)\*(b - Sqrt[b^2 - 4\*a\*c])^(2/3)) - ((h - (b\*1)/c + (2\*c^2\*e + b^2\*1 - c\*(b\*h + 2\*a\*1))/(c\*Sqrt[b^2 - 4\*a\*c]))\*ArcTan[(1 - (2\*2^(1/3)\*c^(1/3)\*x)/(b - Sqrt[b^2 - 4\*a\*c])^(1/3))/Sqrt[3]]/(2^(2/3)\*Sqrt[3]\*c^(2/3)\*(b - Sqrt[b^2 - 4\*a\*c])^(1/3)) - ((g - (b\*k)/c - (2\*c^2\*d - b\*c\*g + b^2\*k - 2\*a\*c\*k)/(c\*Sqrt[b^2 - 4\*a\*c]))\*ArcTan[(1 - (2\*2^(1/3)\*c^(1/3)\*x)/(b + Sqrt[b^2 - 4\*a\*c])^(1/3))/Sqrt[3]]/(2^(1/3)\*Sqrt[3]\*c^(1/3)\*(b + Sqrt[b^2 - 4\*a\*c])^(2/3)) - ((h - (b\*1)/c - (2\*c^2\*e - b\*c\*h + b^2\*1 - 2\*a\*c\*1)/(c\*Sqrt[b^2 - 4\*a\*c]))\*ArcTan[(1 - (2\*2^(1/3)\*c^(1/3)\*x)/(b + Sqrt[b^2 - 4\*a\*c])^(1/3))/Sqrt[3]]/(2^(2/3)\*Sqrt[3]\*c^(2/3)\*(b + Sqrt[b^2 - 4\*a\*c])^(1/3)) - ((2\*c^2\*f - b\*c\*j + b^2\*m - 2\*a\*c\*m)\*ArcTanh[(b + 2\*c\*x^3)/Sqrt[b^2 - 4\*a\*c]])/(3\*c^2\*Sqrt[b^2 - 4\*a\*c]) + ((g - (b\*k)/c + (2\*c^2\*d + b^2\*k - c\*(b\*g + 2\*a\*k))/(c\*Sqrt[b^2 - 4\*a\*c]))\*Log[(b - Sqrt[b^2 - 4\*a\*c])^(1/3) + 2^(1/3)\*c^(1/3)\*x]/(3\*2^(1/3)\*c^(1/3)\*(b - Sqrt[b^2 - 4\*a\*c])^(2/3)) - ((h - (b\*1)/c + (2\*c^2\*e + b^2\*1 - c\*(b\*h + 2\*a\*1))/(c\*Sqrt[b^2 - 4\*a\*c]))\*Log[(b - Sqrt[b^2 - 4\*a\*c])^(1/3) + 2^(1/3)\*c^(1/3)\*x]/(3\*2^(2/3)\*c^(2/3)\*(b - Sqrt[b^2 - 4\*a\*c])^(1/3)) + ((g - (b\*k)/c - (2\*c^2\*d - b\*c\*g + b^2\*k - 2\*a\*c\*k)/(c\*Sqrt[b^2 - 4\*a\*c]))\*Log[(b + Sqrt[b^2 - 4\*a\*c])^(1/3) + 2^(1/3)\*c^(1/3)\*x]/(3\*2^(1/3)\*c^(1/3)\*(b + Sqrt[b^2 - 4\*a\*c])^(2/3)) - ((h - (b\*1)/c - (2\*c^2\*e - b\*c\*h + b^2\*1 - 2\*a\*c\*1)/(c\*Sqrt[b^2 - 4\*a\*c]))\*Log[(b + Sqrt[b^2 - 4\*a\*c])^(1/3) + 2^(1/3)\*c^(1/3)\*x]/(3\*2^(2/3)\*c^(2/3)\*(b + Sqrt[b^2 - 4\*a\*c])^(1/3)) - ((g - (b\*k)/c + (2\*c^2\*d + b^2\*k - c\*(b\*g + 2\*a\*k))/(c\*Sqrt[b^2 - 4\*a\*c]))\*Log[(b - Sqrt[b^2 - 4\*a\*c])^(2/3) - 2^(1/3)\*c^(1/3)\*(b - Sqrt[b^2 - 4\*a\*c])^(1/3)\*x + 2^(2/3)\*c^(2/3)\*x^2]/(6\*2^(1/3)\*c^(1/3)\*(b - Sqrt[b^2 - 4\*a\*c])^(2/3)) + ((h - (b\*1)/c + (2\*c^2\*e + b^2\*1 - c\*(b\*h + 2\*a\*1))/(c\*Sqrt[b^2 - 4\*a\*c]))\*Log[(b - Sqrt[b^2 - 4\*a\*c])^(2/3) - 2^(1/3)\*c^(1/3)\*(b - Sqrt[b^2 - 4\*a\*c])^(1/3)\*x + 2^(2/3)\*c^(2/3)\*x^2]/(6\*2^(2/3)\*c^(2/3)\*(b - Sqrt[b^2 - 4\*a\*c])^(1/3)) - ((g - (b\*k)/c - (2\*c^2\*d - b\*c\*g + b^2\*k - 2\*a\*c\*k)/(c\*Sqrt[b^2 - 4\*a\*c]))\*Log[(b + Sqrt[b^2 - 4\*a\*c])^(2/3) - 2^(1/3)\*c^(1/3)\*(b + Sqrt[b^2 - 4\*a\*c])^(1/3)\*x + 2^(2/3)\*c^(2/3)\*x^2]/(6\*2^(1/3)\*c^(1/3)\*(b + Sqrt[b^2 - 4\*a\*c])^(2/3)) + ((h - (b\*1)/c - (2\*c^2\*e - b\*c\*h + b^2\*1 - 2\*a\*c\*1)/(c\*Sqrt[b^2 - 4\*a\*c]))\*Log[(b + Sqrt[b^2 - 4\*a\*c])^(2/3) - 2^(1/3)\*c^(1/3)\*(b + Sqrt[b^2 - 4\*a\*c])^(1/3)\*x + 2^(2/3)\*c^(2/3)\*x^2]/(6\*2^(2/3)\*c^(2/3)\*(b + Sqrt[b^2 - 4\*a\*c])^(1/3)) + ((c\*j - b\*m)\*Log[a + b\*x^3 + c\*x^6])/(6\*c^2)

### Rule 31

Int[((a\_) + (b\_.)\*(x\_))^(n\_), x\_Symbol] := Simp[Log[RemoveContent[a + b\*x, x]]/b, x] /; FreeQ[{a, b}, x]

### Rule 200

Int[((a\_) + (b\_.)\*(x\_)^3)^(n\_), x\_Symbol] := Dist[1/(3\*Rt[a, 3]^2), Int[1/(Rt[a, 3] + Rt[b, 3]\*x), x], x] + Dist[1/(3\*Rt[a, 3]^2), Int[(2\*Rt[a, 3] - Rt[b, 3]\*x)/(Rt[a, 3]^2 - Rt[a, 3]\*Rt[b, 3]\*x + Rt[b, 3]^2\*x^2), x], x] /; FreeQ[{a, b}, x]

Rule 204

$\text{Int}[(a_ + (b_ \cdot)(x_ )^2)^{-1}, x\_Symbol] \rightarrow -\text{Simp}[\text{ArcTan}[(\text{Rt}[-b, 2] \cdot x)/\text{Rt}[-a, 2]]/(\text{Rt}[-a, 2] \cdot \text{Rt}[-b, 2]), x] /; \text{FreeQ}\{a, b\}, x\} \&\& \text{PosQ}[a/b] \&\& (\text{LtQ}[a, 0] \parallel \text{LtQ}[b, 0])$

Rule 206

$\text{Int}[(a_ + (b_ \cdot)(x_ )^2)^{-1}, x\_Symbol] \rightarrow \text{Simp}[(1 \cdot \text{ArcTanh}[(\text{Rt}[-b, 2] \cdot x)/\text{Rt}[a, 2]])/(\text{Rt}[a, 2] \cdot \text{Rt}[-b, 2]), x] /; \text{FreeQ}\{a, b\}, x\} \&\& \text{NegQ}[a/b] \&\& (\text{GtQ}[a, 0] \parallel \text{LtQ}[b, 0])$

Rule 292

$\text{Int}[(x_ )/((a_ + (b_ \cdot)(x_ )^3), x\_Symbol] \rightarrow -\text{Dist}[(3 \cdot \text{Rt}[a, 3] \cdot \text{Rt}[b, 3])^{-1}, \text{Int}[1/(\text{Rt}[a, 3] + \text{Rt}[b, 3] \cdot x), x], x] + \text{Dist}[1/(3 \cdot \text{Rt}[a, 3] \cdot \text{Rt}[b, 3]), \text{Int}[(\text{Rt}[a, 3] + \text{Rt}[b, 3] \cdot x)/(\text{Rt}[a, 3]^2 - \text{Rt}[a, 3] \cdot \text{Rt}[b, 3] \cdot x + \text{Rt}[b, 3]^2 \cdot x^2), x], x] /; \text{FreeQ}\{a, b\}, x\}$

Rule 617

$\text{Int}[(a_ + (b_ \cdot)(x_ ) + (c_ \cdot)(x_ )^2)^{-1}, x\_Symbol] \rightarrow \text{With}\{q = 1 - 4 \cdot \text{Simplify}[(a \cdot c)/b^2]\}, \text{Dist}[-2/b, \text{Subst}[\text{Int}[1/(q - x^2), x], x, 1 + (2 \cdot c \cdot x)/b], x] /; \text{RationalQ}[q] \&\& (\text{EqQ}[q^2, 1] \parallel \text{!RationalQ}[b^2 - 4 \cdot a \cdot c]) /; \text{FreeQ}\{a, b, c\}, x\} \&\& \text{NeQ}[b^2 - 4 \cdot a \cdot c, 0]$

Rule 618

$\text{Int}[(a_ + (b_ \cdot)(x_ ) + (c_ \cdot)(x_ )^2)^{-1}, x\_Symbol] \rightarrow \text{Dist}[-2, \text{Subst}[\text{Int}[1/\text{Simp}[b^2 - 4 \cdot a \cdot c - x^2, x], x], x, b + 2 \cdot c \cdot x], x] /; \text{FreeQ}\{a, b, c\}, x\} \&\& \text{NeQ}[b^2 - 4 \cdot a \cdot c, 0]$

Rule 628

$\text{Int}[(d_ + (e_ \cdot)(x_ ))/((a_ + (b_ \cdot)(x_ ) + (c_ \cdot)(x_ )^2), x\_Symbol] \rightarrow \text{Simp}[(d \cdot \text{Log}[\text{RemoveContent}[a + b \cdot x + c \cdot x^2, x]])/b, x] /; \text{FreeQ}\{a, b, c, d, e\}, x\} \&\& \text{EqQ}[2 \cdot c \cdot d - b \cdot e, 0]$

Rule 634

$\text{Int}[(d_ + (e_ \cdot)(x_ ))/((a_ + (b_ \cdot)(x_ ) + (c_ \cdot)(x_ )^2), x\_Symbol] \rightarrow \text{Dist}[(2 \cdot c \cdot d - b \cdot e)/(2 \cdot c), \text{Int}[1/(a + b \cdot x + c \cdot x^2), x], x] + \text{Dist}[e/(2 \cdot c), \text{Int}[(b + 2 \cdot c \cdot x)/(a + b \cdot x + c \cdot x^2), x], x] /; \text{FreeQ}\{a, b, c, d, e\}, x\} \&\& \text{NeQ}[2 \cdot c \cdot d - b \cdot e, 0] \&\& \text{NeQ}[b^2 - 4 \cdot a \cdot c, 0] \&\& \text{!NiceSqrtQ}[b^2 - 4 \cdot a \cdot c]$

Rule 1422

$\text{Int}[(d_ + (e_ \cdot)(x_ )^{n_ })/((a_ + (b_ \cdot)(x_ )^{n_ } + (c_ \cdot)(x_ )^{n_ 2}), x\_Symbol] \rightarrow \text{With}\{q = \text{Rt}[b^2 - 4 \cdot a \cdot c, 2]\}, \text{Dist}[e/2 + (2 \cdot c \cdot d - b \cdot e)/(2 \cdot q), \text{Int}[1/(b/2 - q/2 + c \cdot x^n), x], x] + \text{Dist}[e/2 - (2 \cdot c \cdot d - b \cdot e)/(2 \cdot q), \text{Int}[1/(b/2 + q/2 + c \cdot x^n), x], x]] /; \text{FreeQ}\{a, b, c, d, e, n\}, x\} \&\& \text{EqQ}[n^2, 2 \cdot n] \&\& \text{NeQ}[b^2 - 4 \cdot a \cdot c, 0] \&\& \text{NeQ}[c \cdot d^2 - b \cdot d \cdot e + a \cdot e^2, 0] \&\& (\text{PosQ}[b^2 - 4 \cdot a \cdot c] \parallel \text{!IGtQ}[n/2, 0])$

Rule 1510

$\text{Int}[(f_ \cdot)(x_ )^{m_ } \cdot ((d_ + (e_ \cdot)(x_ )^{n_ })/((a_ + (b_ \cdot)(x_ )^{n_ } + (c_ \cdot)(x_ )^{n_ 2}), x\_Symbol] \rightarrow \text{With}\{q = \text{Rt}[b^2 - 4 \cdot a \cdot c, 2]\}, \text{Dist}[e/2 + (2 \cdot c \cdot d - b \cdot e)/(2 \cdot q), \text{Int}[(f \cdot x)^m/(b/2 - q/2 + c \cdot x^n), x], x] + \text{Dist}[e/2 - (2 \cdot c \cdot d - b \cdot e)/(2 \cdot q), \text{Int}[(f \cdot x)^m/(b/2 + q/2 + c \cdot x^n), x], x]] /; \text{FreeQ}\{a, b$

, c, d, e, f, m}, x] && EqQ[n2, 2\*n] && NeQ[b^2 - 4\*a\*c, 0] && IGtQ[n, 0]

### Rule 1657

Int[(Pq\_)\*((a\_) + (b\_)\*(x\_) + (c\_)\*(x\_)^2)^(p\_), x\_Symbol] := Int[ExpandIntegrand[Pq\*(a + b\*x + c\*x^2)^p, x], x] /; FreeQ[{a, b, c}, x] && PolyQ[Pq, x] && IGtQ[p, -2]

### Rule 1745

Int[(Pq\_)\*(x\_)^(m\_)\*((a\_) + (c\_)\*(x\_)^(n2\_) + (b\_)\*(x\_)^(n\_))^(p\_), x\_Symbol] := Dist[1/n, Subst[Int[SubstFor[x^n, Pq, x]\*(a + b\*x + c\*x^2)^p, x], x, x^n], x] /; FreeQ[{a, b, c, m, n, p}, x] && EqQ[n2, 2\*n] && PolyQ[Pq, x^n] && EqQ[Simplify[m - n + 1], 0]

### Rule 1758

Int[(Pq\_)\*((d\_)\*(x\_)^(m\_)\*((a\_) + (b\_)\*(x\_)^(n\_) + (c\_)\*(x\_)^(n2\_))^(p\_), x\_Symbol] := With[{q = Expon[Pq, x]}, With[{Pqq = Coeff[Pq, x, q]}, Int[(d\*x)^m\*ExpandToSum[Pq - Pqq\*x^q - (Pqq\*(a\*(m + q - 2\*n + 1)\*x^(q - 2\*n) + b\*(m + q + n\*(p - 1) + 1)\*x^(q - n)))/(c\*(m + q + 2\*n\*p + 1)), x]\*(a + b\*x^n + c\*x^(2\*n))^p, x] + Simp[(Pqq\*(d\*x)^(m + q - 2\*n + 1)\*(a + b\*x^n + c\*x^(2\*n))^(p + 1))/(c\*d^(q - 2\*n + 1)\*(m + q + 2\*n\*p + 1)), x]] /; GeQ[q, 2\*n] && NeQ[m + q + 2\*n\*p + 1, 0] && (IntegerQ[2\*p] || (EqQ[n, 1] && IntegerQ[4\*p]) || IntegerQ[p + (q + 1)/(2\*n)])] /; FreeQ[{a, b, c, d, m, p}, x] && EqQ[n2, 2\*n] && PolyQ[Pq, x^n] && NeQ[b^2 - 4\*a\*c, 0] && IGtQ[n, 0]

### Rule 1789

Int[(Pq\_)\*((a\_) + (b\_)\*(x\_)^(n\_) + (c\_)\*(x\_)^(n2\_))^(p\_), x\_Symbol] := With[{q = Expon[Pq, x]}, With[{Pqq = Coeff[Pq, x, q]}, Int[ExpandToSum[Pq - Pqq\*x^q - (Pqq\*(a\*(q - 2\*n + 1)\*x^(q - 2\*n) + b\*(q + n\*(p - 1) + 1)\*x^(q - n)))/(c\*(q + 2\*n\*p + 1)), x]\*(a + b\*x^n + c\*x^(2\*n))^p, x] + Simp[(Pqq\*x^(q - 2\*n + 1)\*(a + b\*x^n + c\*x^(2\*n))^(p + 1))/(c\*(q + 2\*n\*p + 1)), x]] /; GeQ[q, 2\*n] && NeQ[q + 2\*n\*p + 1, 0] && (IntegerQ[2\*p] || (EqQ[n, 1] && IntegerQ[4\*p]) || IntegerQ[p + (q + 1)/(2\*n)])] /; FreeQ[{a, b, c, p}, x] && EqQ[n2, 2\*n] && PolyQ[Pq, x^n] && NeQ[b^2 - 4\*a\*c, 0] && IGtQ[n, 0]

### Rule 1790

Int[(Pq\_)\*((a\_) + (b\_)\*(x\_)^(n\_) + (c\_)\*(x\_)^(n2\_))^(p\_), x\_Symbol] := Module[{q = Expon[Pq, x], j, k}, Int[Sum[x^j\*Sum[Coeff[Pq, x, j + k\*n]\*x^(k\*n), {k, 0, (q - j)/n + 1}](a + b\*x^n + c\*x^(2\*n))^p, {j, 0, n - 1}], x] /; FreeQ[{a, b, c, p}, x] && EqQ[n2, 2\*n] && PolyQ[Pq, x] && NeQ[b^2 - 4\*a\*c, 0] && IGtQ[n, 0] && !PolyQ[Pq, x^n]

### Rubi steps

$$\begin{aligned}
\int \frac{d + ex + fx^2 + gx^3 + hx^4 + jx^5 + kx^6 + lx^7 + mx^8}{a + bx^3 + cx^6} dx &= \int \left( \frac{d + gx^3 + kx^6}{a + bx^3 + cx^6} + \frac{x(e + hx^3 + lx^6)}{a + bx^3 + cx^6} + \frac{x^2(f + jx^3 + mx^6)}{a + bx^3 + cx^6} \right) dx \\
&= \int \frac{d + gx^3 + kx^6}{a + bx^3 + cx^6} dx + \int \frac{x(e + hx^3 + lx^6)}{a + bx^3 + cx^6} dx + \int \frac{x^2(f + jx^3 + mx^6)}{a + bx^3 + cx^6} dx \\
&= \frac{kx}{c} + \frac{lx^2}{2c} + \frac{1}{3} \text{Subst} \left( \int \frac{f + jx + mx^2}{a + bx + cx^2} dx, x, x^3 \right) + \\
&= \frac{kx}{c} + \frac{lx^2}{2c} + \frac{1}{3} \text{Subst} \left( \int \left( \frac{m}{c} + \frac{cf - am + (cj - bm)x}{c(a + bx + cx^2)} \right) dx, x, x^3 \right) \\
&= \frac{kx}{c} + \frac{lx^2}{2c} + \frac{mx^3}{3c} + \frac{\text{Subst} \left( \int \frac{cf - am + (cj - bm)x}{a + bx + cx^2} dx, x, x^3 \right)}{3c} \\
&= \frac{kx}{c} + \frac{lx^2}{2c} + \frac{mx^3}{3c} + \frac{\left( g - \frac{bk}{c} + \frac{2c^2d + b^2k - c(bg + 2ak)}{c\sqrt{b^2 - 4ac}} \right) \log \left( b - \sqrt{b^2 - 4ac} \right)}{3\sqrt[3]{2}\sqrt[3]{c} \left( b - \sqrt{b^2 - 4ac} \right)} \\
&= \frac{kx}{c} + \frac{lx^2}{2c} + \frac{mx^3}{3c} + \frac{\left( g - \frac{bk}{c} + \frac{2c^2d + b^2k - c(bg + 2ak)}{c\sqrt{b^2 - 4ac}} \right) \log \left( b - \sqrt{b^2 - 4ac} \right)}{3\sqrt[3]{2}\sqrt[3]{c} \left( b - \sqrt{b^2 - 4ac} \right)} \\
&= \frac{kx}{c} + \frac{lx^2}{2c} + \frac{mx^3}{3c} - \frac{\left( g - \frac{bk}{c} + \frac{2c^2d + b^2k - c(bg + 2ak)}{c\sqrt{b^2 - 4ac}} \right) \tan^{-1} \left( \frac{b - \sqrt{b^2 - 4ac}}{\sqrt[3]{2}\sqrt[3]{c}} \right)}{\sqrt[3]{2}\sqrt[3]{c} \left( b - \sqrt{b^2 - 4ac} \right)}
\end{aligned}$$

**Mathematica [C]** time = 1.68, size = 223, normalized size = 0.13

$$-2\text{RootSum} \left[ \#1^6c + \#1^3b + a\&, \frac{\#1^5bm \log(x-\#1) + \#1^5(-c)j \log(x-\#1) + \#1^4bl \log(x-\#1) - \#1^4ch \log(x-\#1) + \#1^3bk \log(x-\#1) - \#1^3cg \log(x-\#1)}{6c} \right]$$

Antiderivative was successfully verified.

[In] Integrate[(d + e\*x + f\*x^2 + g\*x^3 + h\*x^4 + j\*x^5 + k\*x^6 + l\*x^7 + m\*x^8)/(a + b\*x^3 + c\*x^6),x]

[Out] (6\*k\*x + 3\*l\*x^2 + 2\*m\*x^3 - 2\*RootSum[a + b\*#1^3 + c\*#1^6 &, (-c\*d\*Log[x - #1]) + a\*k\*Log[x - #1] - c\*e\*Log[x - #1]\*#1 + a\*l\*Log[x - #1]\*#1 - c\*f\*Log[x - #1]\*#1^2 + a\*m\*Log[x - #1]\*#1^2 - c\*g\*Log[x - #1]\*#1^3 + b\*k\*Log[x - #1]\*#1^3 - c\*h\*Log[x - #1]\*#1^4 + b\*l\*Log[x - #1]\*#1^4 - c\*j\*Log[x - #1]\*#1^5 + b\*m\*Log[x - #1]\*#1^5)/(b\*#1^2 + 2\*c\*#1^5) & ]/(6\*c)

**fricas [F(-1)]** time = 0.00, size = 0, normalized size = 0.00

Timed out

Verification of antiderivative is not currently implemented for this CAS.

[In] integrate((m\*x^8+l\*x^7+k\*x^6+j\*x^5+h\*x^4+g\*x^3+f\*x^2+e\*x+d)/(c\*x^6+b\*x^3+a),x, algorithm="fricas")

[Out] Timed out

**giac** [F(-1)] time = 0.00, size = 0, normalized size = 0.00

Timed out

Verification of antiderivative is not currently implemented for this CAS.

[In] integrate((m\*x^8+l\*x^7+k\*x^6+j\*x^5+h\*x^4+g\*x^3+f\*x^2+e\*x+d)/(c\*x^6+b\*x^3+a),x, algorithm="giac")

[Out] Timed out

**maple** [C] time = 0.02, size = 134, normalized size = 0.08

$$\frac{m x^3}{3c} + \frac{l x^2}{2c} + \frac{k x}{c} + \frac{\left( (-b m + c j) \operatorname{RootOf}(-Z^6 c + Z^3 b + a)^5 + (-b l + c h) \operatorname{RootOf}(-Z^6 c + Z^3 b + a)^4 + (-b k + c g) \right)}{c}$$

30

Verification of antiderivative is not currently implemented for this CAS.

[In] int((m\*x^8+l\*x^7+k\*x^6+j\*x^5+h\*x^4+g\*x^3+f\*x^2+e\*x+d)/(c\*x^6+b\*x^3+a),x)

[Out] 1/3\*m\*x^3/c+1/2\*l\*x^2/c+k\*x/c+1/3/c\*sum((( -b\*m+c\*j)\*\_R^5+(-b\*l+c\*h)\*\_R^4+(-b\*k+c\*g)\*\_R^3+(-a\*m+c\*f)\*\_R^2+(-a\*l+c\*e)\*\_R-a\*k+c\*d)/(2\*\_R^5\*c+\_R^2\*b)\*ln(-\_R+x),\_R=RootOf(-Z^6\*c+\_Z^3\*b+a))

**maxima** [F] time = 0.00, size = 0, normalized size = 0.00

$$\frac{2 m x^3 + 3 l x^2 + 6 k x}{6 c} - \frac{\int \frac{(c j - b m) x^5 + (c h - b l) x^4 + (c g - b k) x^3 + (c f - a m) x^2 + c d - a k + (c e - a l) x}{c x^6 + b x^3 + a} dx}{c}$$

Verification of antiderivative is not currently implemented for this CAS.

[In] integrate((m\*x^8+l\*x^7+k\*x^6+j\*x^5+h\*x^4+g\*x^3+f\*x^2+e\*x+d)/(c\*x^6+b\*x^3+a),x, algorithm="maxima")

[Out] 1/6\*(2\*m\*x^3 + 3\*l\*x^2 + 6\*k\*x)/c - integrate(-((c\*j - b\*m)\*x^5 + (c\*h - b\*l)\*x^4 + (c\*g - b\*k)\*x^3 + (c\*f - a\*m)\*x^2 + c\*d - a\*k + (c\*e - a\*l)\*x)/(c\*x^6 + b\*x^3 + a), x)/c

**mupad** [B] time = 40.55, size = 359169, normalized size = 215.33

result too large to display

Verification of antiderivative is not currently implemented for this CAS.

[In] int((d + e\*x + f\*x^2 + g\*x^3 + h\*x^4 + j\*x^5 + k\*x^6 + l\*x^7 + m\*x^8)/(a + b\*x^3 + c\*x^6),x)

[Out] symsum(log((x\*(c^7\*e^5 + c^7\*d^4\*j - a^5\*c^2\*l^5 - b^7\*e^2\*m^3 - a^2\*b\*c^4\*h^5 - a\*c^6\*e^2\*g^3 - b\*c^6\*e^2\*f^3 + 2\*a\*c^6\*e^3\*h^2 + b\*c^6\*d^3\*h^2 + a^2\*c^5\*e\*h^4 + a^4\*b^2\*c\*l^5 + 3\*c^7\*d^2\*e\*f^2 + 3\*c^7\*d^2\*e^2\*g + a^2\*b^5\*d\*m^4 - a^2\*c^5\*g^4\*j + a^3\*c^4\*g\*j^4 + 5\*a^4\*c^3\*e\*l^4 + 3\*b^2\*c^5\*e^4\*l + b^6\*c\*e^2\*l^3 - a^3\*b^4\*g\*m^4 - a^3\*c^4\*h^4\*l - a^5\*c^2\*g\*m^4 + a^4\*c^3\*j\*k^4 + a^4\*b^3\*k\*m^4 + b^2\*c^5\*e^2\*g^3 + 3\*b^2\*c^5\*e^3\*h^2 - b^3\*c^4\*e^2\*h^3 + a^2\*c^5\*e^2\*j^3 + a^2\*c^5\*g^3\*h^2 + b^4\*c^3\*e^2\*j^3 + 10\*a^2\*c^5\*e^3\*l^2 - 10\*a^3\*c^4\*e^2\*l^3 + b^3\*c^4\*d^3\*l^2 - b^5\*c^2\*e^2\*k^3 - a^3\*c^4\*h^2\*j^3 + 3\*b^4\*c^3\*e^3\*l^2 - a^3\*c^4\*g^3\*l^2 - a^2\*b^5\*h^2\*m^3 - 2\*a^4\*c^3\*h^2\*l^3



$$\begin{aligned}
& + a^4c^3j^3l^2 - a^4b^3l^2m^3 + b^6d^4f^4 - a^6f^4g - 3b^6e^4h - 4c^7d^3e^3f - 2c^7d^3e^3h - 2c^7d^3f^3g - 5a^6e^4l - b^6d^4m + b^7d^4f^3m^3 + a^6b^5f^3g^4 - 2a^6d^4f^3g^3 + 2a^6e^3f^3h + 3b^6e^3f^3g + 2a^6d^4f^3j + 3b^6d^4e^3j + 4a^6d^4e^3m + 4a^6e^3f^3k + 4a^6e^3g^3j + 2b^6d^3e^3l + 2b^6d^3f^3k - b^6d^3g^3j - b^6c^4d^3f^3l^3 + 2a^6d^3g^3m + 2a^6d^3h^3l + 2a^6b^6e^3h^3m^3 - a^6b^6f^3g^3m^3 - 4a^6d^3j^3k - a^6b^6d^3j^3m^3 - 2a^5b^6c^3k^3m^4 + 12a^2b^2c^3e^2l^3 + a^2b^2c^3h^2j^3 - 10a^2b^3c^2e^2m^3 - a^2b^3c^2h^2k^3 - 3a^2b^3c^2h^3l^2 + 3a^3b^2c^2h^2l^3 - 4a^4b^3c^5e^2h^3 + 2a^4b^2c^4e^2h^4 + a^4b^3c^3d^2j^4 - 2a^2b^3c^4d^2j^4 - 3b^6d^4e^2g^2 - 2a^4b^3c^5d^3l^2 + 3a^6e^2f^2g^2 + 3b^6d^2f^2g^2 - b^2c^5d^4f^3g^3 + 3a^6d^2e^2j^2 - 3a^6d^2g^2h^2 - 3b^6d^2f^2h^2 + 2a^2b^4c^3e^2l^4 - 2a^3b^3c^3f^3k^4 - 4a^3b^3c^3d^3m^4 + 3a^4b^3c^2d^3m^4 + b^3c^4d^4f^3h^3 + 6a^4b^5c^3e^2m^3 + 2a^2c^5d^4f^3j^3 - 3a^6e^2f^2j^3 - 3b^6d^2e^2k^3 - 2a^2c^5f^3g^2h^3 - 3b^2c^5d^4f^3j^3 - b^4c^3d^4f^3j^3 - 3a^6d^2f^2l^3 - 2a^2c^5d^4h^3j^3 - 2a^3b^3c^3h^3l^4 + 4a^3c^4d^4f^3l^3 + a^4b^3c^2h^3l^4 + 3a^4b^2c^3g^3m^4 + b^5c^2d^4f^3k^3 + a^3b^3c^3j^4k^3 - 3b^2c^5d^4e^3m^3 - 3b^2c^5e^3f^3k^3 - 3b^2c^5e^3g^3j^3 + 2a^2c^5d^4g^3m^3 + 2a^2c^5e^3g^3l^3 + 2a^2c^5f^3g^3k^3 + 2a^3c^4e^3h^3k^3 + 2a^3c^4f^3g^3k^3 + 3b^3c^4d^4f^3m^3 - 4a^3c^4d^4j^3k^3 + b^2c^5d^3g^3m^3 - 2b^2c^5d^3h^3l^3 + 4a^2c^5f^3g^3m^3 - 2a^2c^5f^3h^3l^3 + a^4b^3c^2k^4m^3 - 2a^4c^3e^3h^3m^3 + 4a^4c^3f^3g^3m^3 + b^2c^5d^3j^3k^3 + 3b^3c^4e^3g^3m^3 - 6b^3c^4e^3h^3l^3 - 2a^2c^5f^3j^3k^3 - 2a^3c^4d^4j^3m^3 - 2a^3c^4e^3j^3l^3 - 2a^3c^4f^3j^3k^3 - 2a^4c^3d^4j^3m^3 + 2a^5b^3c^1^2m^3 + 3b^3c^4e^3j^3k^3 + 2a^3c^4g^3h^3m^3 - 2a^2b^5e^3l^3m^3 + a^2b^5f^3k^3m^3 + a^2b^5g^3j^3m^3 - 4a^2c^5e^3k^3m^3 + 2a^3c^4h^3j^3k^3 - 4a^4c^3d^3l^3m^3 - 4a^4c^3f^3k^3l^3 - 4a^4c^3g^3j^3l^3 - b^3c^4d^3k^3m^3 + 3b^6c^3e^2j^3m^2 - 3b^4c^3e^3k^3m^3 - 2a^3c^4g^3k^3m^3 - 2a^4c^3g^3k^3m^3 - 2a^4c^3h^3k^3l^3 + 2a^3b^4h^3l^3m^3 - a^3b^4j^3k^3m^3 + 2a^5c^2h^3l^3m^3 + 2a^4c^3j^3k^3m^3 + 2a^5c^2j^3k^3m^3 + 4a^5c^2k^3l^3m^3 - 3a^4b^2c^4e^2j^3 + 4a^4b^3c^3e^2k^3 - 3a^2b^3c^4e^2k^3 - 10a^4b^2c^4e^3l^2 - 5a^4b^4c^2e^2l^3 - a^2b^2c^3g^3j^4 + a^2b^3c^2f^3k^4 - 6a^3b^2c^2e^2l^4 + a^2b^3c^4f^3l^2 + 4a^3b^3c^3e^2m^3 + 2a^3b^3c^3h^2k^3 - 3b^3c^4d^4e^2k^2 + 3b^3c^4d^4f^2j^2 + 3a^2b^2c^3h^4l^3 + a^2b^4c^3h^2l^3 + 3a^2c^5e^2f^2k^2 + 3a^2c^5e^2g^2j^2 + 3a^2c^5d^2e^2m^2 + 3b^2c^5e^2f^2j^2 + 3b^3c^4d^2f^2k^2 - 3b^3c^4e^2f^2j^2 + 3a^2c^5d^2g^2l^2 + 3a^2c^5e^2g^2k^2 - a^3b^2c^2j^3k^4 + 4a^3b^3c^3h^2m^3 - 3a^4b^3c^2h^2m^3 + 3b^2c^5d^2f^2l^3 + 3a^2c^5f^2h^2j^2 - 3b^3c^4e^2g^2k^2 + 3b^4c^3e^2g^2k^2 + 3b^5c^2d^4f^2m^2 + 6a^2c^5d^2j^3k^2 - 6a^2c^5e^2h^2l^3 - 3a^2c^5f^2g^2l^3 + 3a^3c^4e^2g^2m^2 + 6a^3c^4e^2h^2l^2 - a^4b^3c^2k^3l^2 - 3b^3c^4e^2f^2m^3 - 3b^5c^2e^2f^2m^2 - 3a^2c^5d^2j^2l^3 + 3a^3c^4e^2j^2k^2 - 3a^3c^4g^2h^2k^2 - 6a^3c^4f^2g^2m^2 + 3b^4c^3e^2h^2l^3 - 3b^5c^2e^2h^3l^2 - 3a^3c^4e^2j^3m^2 - 3a^3c^4f^2j^3l^2 - 3a^3c^4d^2l^3m^2 - 3a^3c^4f^2k^2l^3 - 3a^3c^4g^2j^2l^3 + 3a^4c^3e^2k^2m^2 - 3b^5c^2e^2j^2m^3 + 3a^4c^3g^2k^2l^2 + 3a^4c^3h^2j^2m^2 - 3a^4c^3g^2l^3m^2 - 3a^4c^3j^2k^2l^3 - 3a^5c^2j^2l^2m^2 - 3a^5c^2k^2l^3m^2 - 6a^2b^2c^3d^4f^3l^3 - 3a^4b^2c^4d^2g^3l^2 - 9a^4b^2c^4e^2g^3k^2 - 3a^4b^2c^4f^2g^3j^2 - 12a^4b^3c^3d^4f^2m^2 + 12a^2b^3c^4d^4f^2m^2 + 3a^2b^3c^4d^4g^2l^2 - 3a^2b^3c^4d^4h^2k^2 + 13a^2b^3c^2d^4f^3m^3 + 3a^4b^3c^3f^3g^2k^2 + 12a^4b^3c^3e^2f^3m^2 - 3a^2b^3c^4f^3g^2k^2 - 3a^2b^3c^4f^3h^2j^2 - 9a^2b^3c^4e^2f^3m^2 - 6a^2b^2c^3e^3h^3k^3 - 3a^4b^2c^4d^2j^3k^2 + 3a^4b^2c^4e^2h^2l^3 + 3a^4b^2c^4f^2g^2l^3 + 6a^4b^3c^3e^2h^3l^2 + 6a^4b^4c^2e^3h^2l^2 - 3a^2b^3c^4d^2h^3m^2 - 6a^2b^3c^4e^2h^3l^2 - 3a^2b^3c^4f^2h^3k^2 - 3a^2b^3c^4g^2h^3j^2 + 3a^2b^2c^3d^4j^3k^3 + 2a^2b^3c^2e^3h^3l^3 - 4a^2b^3c^2f^3g^3l^3 + 3a^4b^2c^4d^2j^2l^3 - 3a^4b^4c^2f^2g^3m^2 - 3a^2b^3c^4g^2h^2k^2 - 4a^2b^3c^2d^4j^3l^3 + 12a^3b^2c^2e^3h^3m^3 - 9a^3b^2c^2f^3g^3m^3 + 3a^2b^3c^4d^2k^3l^2 - 3a^2b^3c^4f^2h^2m^3 + 3a^2b^3c^4f^2j^2k^2 + 8a^2b^2c^3d^4j^3m^3 + 2a^2b^2c^3e^3j^3l^3 - a^2b^3
\end{aligned}$$

$$\begin{aligned}
& ^2c^3f^j^3k + 3a^3b^3c^3d^j^2m^2 + 6a^3b^3c^3f^h^2m^2 + 3a^3b^2c^2d^j^3m^3 + 12a^2b^3c^3e^2j^2m - 15a^2b^4c^2e^2j^3m^2 - 9a^2b^3c^4e^2j^2m - 3a^2b^2c^3g^h^3m + a^2b^3c^2d^k^3m - 2a^2b^3c^2ek^3l + a^2b^3c^2g^j^k^3 - 3a^3b^3c^3g^2h^m^2 - 3a^2b^2c^3h^3j^k - 3a^3b^3c^3h^j^2k^2 + 3a^3b^2c^2d^l^3m + 3a^3b^2c^2f^k^l^3 + 3a^3b^2c^2g^j^l^3 + 3a^2b^3c^2g^j^3m - 3a^2b^4c^3g^j^2m^2 - 6a^3b^3c^3f^2k^m^2 + 3a^2b^4c^3h^2j^m^2 + 3a^3b^3c^3g^2k^2m + 6a^3b^3c^3h^2j^2m - a^3b^2c^2g^k^3m + 2a^3b^2c^2h^k^3l - 3a^4b^3c^2f^l^2m^2 + 3a^2b^3c^2h^3k^m - 3a^4b^3c^2h^k^2m^2 - 3a^3b^2c^2j^3k^m + 3a^3b^3c^2j^2k^m^2 - 3a^4b^3c^2j^2k^m^2 - 3a^4b^3c^2j^2l^2m + 3a^4b^2c^2j^l^2m^2 + 3a^4b^2c^2k^2l^m^2 - 2a^3b^3c^5d^f^h^3 - 2a^3b^3c^5e^g^3h + a^3b^3c^5d^g^3j - 3b^3c^6d^e^f^2g + 6a^3c^6d^e^g^2h + 6b^3c^6d^e^2f^h - 6a^3b^3c^5d^f^3m + 3a^3b^3c^5f^3g^j - 6a^3b^5c^d^f^m^3 - 6a^3c^6d^e^f^2k - 6a^3c^6e^2f^g^h - 3b^3c^6d^2e^f^j - 7a^3b^3c^5e^3g^m + 8a^3b^3c^5e^3h^l - 2a^3b^5c^e^h^l^3 + a^3b^5c^f^g^l^3 + 12a^3c^6d^e^2f^l - 6a^3c^6d^e^2g^k - 6a^3c^6d^e^2h^j - 7a^3b^3c^5e^3j^k + a^3b^5c^d^j^l^3 - 6a^3c^6d^2e^f^m - 6a^3c^6d^2e^g^l + 6a^3c^6d^2e^h^k + 6a^3c^6d^2f^g^k + 2a^3b^3c^5d^3k^m - 3b^6c^d^f^j^m^2 - 3b^6c^e^2k^l^m - 9a^2b^2c^3e^h^2l^2 + 3a^2b^2c^3g^h^2k^2 + 9a^2b^2c^3f^2g^m^2 - 9a^2b^3c^2d^j^2m^2 - 3a^2b^3c^2f^h^2m^2 + 18a^2b^2c^3e^2j^m^2 - 3a^2b^2c^3g^2j^k^2 + 3a^2b^2c^3d^2l^m^2 + 3a^2b^2c^3f^2k^2l + 3a^2b^2c^3g^2j^2l + 3a^2b^3c^2f^2k^m^2 + 6a^3b^2c^2g^j^2m^2 - 3a^2b^3c^2h^2j^2m^2 + 3a^3b^2c^2g^2l^m^2 + 3a^3b^2c^2j^2k^2l + 6a^3b^3c^5d^e^2k^2 - 3a^3b^3c^5d^f^2j^2 - 6a^3b^3c^5d^2f^k^2 + 6a^3b^3c^5e^2f^j^2 - 3a^3b^3c^5f^2g^2h - a^3b^2c^4f^g^h^3 - 4a^3b^3c^3d^f^k^3 + 6a^2b^3c^4d^f^k^3 - 3a^3b^3c^5d^2h^j^2 - a^3b^2c^4d^h^3j + 5a^3b^4c^2d^f^l^3 - 3b^2c^5d^e^f^h^2 + 6a^3b^3c^5e^2g^2k - 2a^3b^3c^3e^h^j^3 + a^3b^3c^3f^g^j^3 + 4a^2b^3c^4e^h^j^3 + a^2b^3c^4f^g^j^3 - 10a^3b^3c^3d^f^m^3 - 3a^3b^3c^5d^2g^2m + 6a^3b^3c^5e^2f^2m - 3a^3b^2c^4f^g^3k + 2a^3b^4c^2e^h^k^3 - a^3b^4c^2f^g^k^3 + 3b^2c^5d^f^2g^h - 6a^3b^3c^3e^h^3l - a^3b^4c^2d^j^k^3 + 4a^2b^3c^4d^h^3m + 4a^2b^3c^4e^h^3l + 4a^2b^3c^4f^h^3k + 4a^2b^3c^4g^h^3j - 12a^2c^5d^e^f^l^2 + 3a^3b^3c^3f^g^l^3 + 3b^2c^5d^e^f^2k - 3b^2c^5e^2f^g^h - 3a^3b^2c^4f^3g^m - 10a^2b^4c^3e^h^m^3 + 5a^2b^4c^3f^g^m^3 - 6a^2c^5d^e^h^k^2 - 6a^2c^5d^f^g^k^2 + 3a^3b^3c^3d^j^l^3 - 6b^2c^5d^e^2f^l + 6b^2c^5d^e^2g^k - 3b^2c^5d^e^2h^j - 3b^4c^3d^e^f^l^2 - 3a^3b^4c^2d^j^3m + 3a^3b^5c^d^j^2m^2 + 2a^2b^4c^3d^j^3m^3 - 6a^2c^5e^f^h^j^2 + 3b^2c^5d^2e^f^m - 6b^2c^5d^2f^g^k + 3b^2c^5d^2f^h^j + 3b^3c^4d^f^g^2k - 3b^4c^3d^f^g^k^2 + 3a^2b^3c^4g^3j^k - 6a^2c^5d^e^j^2k + 6a^2c^5d^g^h^2k - 2a^3b^3c^3d^k^3m + 4a^3b^3c^3e^k^3l + a^3b^3c^3g^j^k^3 - 3b^3c^4d^f^2g^l - 3b^3c^4d^f^2h^k + 10a^3b^2c^4e^3k^m - a^2b^4c^3d^l^3m - a^2b^4c^3f^k^l^3 - a^2b^4c^3g^j^l^3 - 6a^2c^5d^g^2h^l - 6a^2c^5e^f^g^2m - 6a^2c^5e^g^2h^k + 3b^3c^4d^e^2h^m + 3b^3c^4e^2f^g^l + 3b^3c^4e^2f^h^k + 3b^3c^4e^2g^h^j - 3b^4c^3d^f^h^2l + 3b^5c^2d^f^h^l^2 + 2a^2b^3c^4f^3k^m - 6a^2c^5e^f^2h^m - 5a^3b^3c^3g^j^3m - 2a^3b^3c^3h^j^3l + 8a^3b^3c^3e^l^m^3 - 4a^3b^3c^3f^k^m^3 - a^3b^3c^3g^j^m^3 + 6a^3c^4e^f^h^m^2 - 6a^4b^3c^2e^l^m^3 + 6a^4b^3c^2f^k^m^3 - 3a^4b^3c^2g^j^m^3 + 3b^3c^4d^e^2j^l - 3b^3c^4d^2f^h^m - 6a^2c^5d^f^2j^m + 6a^2c^5d^f^2k^l + 6a^2c^5e^f^2j^l + 6a^2c^5e^2g^h^m - 6a^3c^4d^e^k^m^2 + 6a^3c^4d^f^j^m^2 - 6a^3c^4f^g^h^l^2 - 3b^3c^4d^2f^j^l - 12a^2c^5d^e^2l^m + 6a^2c^5e^2f^j^m - 12a^2c^5e^2f^k^l - 12a^2c^5e^2g^j^l + 6a^2c^5e^2h^j^k - 6a^3b^3c^3h^3k^m + a^3b^3c^3g^l^3m + 12a^3c^4d^e^l^2m - 6a^3c^4d^g^k^l^2 - 6a^3c^4d^h^j^l^2 + 12a^3c^4e^f^k^l^2 + 12a^3c^4e^g^j^l^2 + a^4b^3c^2g^l^3m - 6b^4c^3d^f^2j^m + 3b^4c^3d^f^2k^l - 3b^4c^3e^2g^h^m + 3b^5c^2d^f^j^2m + 6a^2c^5d^2f^l^m - 6a^2c^5d^2g^k^m - 6a^2c^5d^2h^k^l + a^3b^3c^3j^k^l^3 + 6a^3c^4d^g^k^2m + 6a^3c^4d^h^k^2l - 6a^3c^4e^f^k^2m - 6a^3c^4e^g^k^2l + a^4b^3c^2j^k^l^3 - 6a^4c^
\end{aligned}$$

$$\begin{aligned}
& b^2*c*h*l*m^3 - 3*b^4*c^3*d*e^2*l*m + 6*b^4*c^3*e^2*f*j*m - 3*b^4*c^3*e^2*f* \\
& *k*l - 3*b^4*c^3*e^2*g*j*l - 3*b^4*c^3*e^2*h*j*k + 6*a^3*c^4*e*h*j^2*m + 6* \\
& a^3*c^4*f*h*j^2*l + 3*b^4*c^3*d^2*f*l*m + 6*a^3*c^4*d*j^2*k*l - 6*a^3*c^4*f \\
& *h^2*j*m + 6*a^3*c^4*f*g^2*l*m + 6*a^3*c^4*g^2*h*k*l - 4*a^4*b^2*c*k*l^3*m \\
& + 3*b^5*c^2*e^2*g*l*m + 3*b^5*c^2*e^2*h*k*m + 6*a^3*c^4*f^2*h*l*m - 6*a^4*c \\
& ^3*f*h*l*m^2 + 3*b^5*c^2*e^2*j*k*l + 6*a^3*c^4*f^2*j*k*m + 6*a^4*c^3*d*k*l* \\
& m^2 + 6*a^4*c^3*e*j*l*m^2 - 6*a^4*c^3*f*j*k*m^2 + 6*a^4*c^3*g*h*l^2*m + 12* \\
& a^3*c^4*e^2*k*l*m - 12*a^4*c^3*e*k*l^2*m + 6*a^4*c^3*f*j*l^2*m + 6*a^4*c^3* \\
& h*j*k*l^2 + 6*a^4*c^3*f*k^2*l*m - 6*a^4*c^3*h*j^2*l*m + 12*a*b^2*c^4*d*e*f* \\
& l^2 + 6*a*b^2*c^4*d*e*h*k^2 + 6*a*b^2*c^4*d*f*g*k^2 + 3*a*b^2*c^4*d*g*h*j^2 \\
& + 6*a*b^2*c^4*e*f*h*j^2 - 3*a^2*b*c^4*d*e*g*m^2 - 6*a*b^2*c^4*d*e*h^2*m + \\
& 3*a*b^2*c^4*d*e*j^2*k + 9*a*b^2*c^4*d*f*h^2*l - 6*a*b^2*c^4*e*f*h^2*k - 6*a \\
& *b^2*c^4*e*g*h^2*j - 12*a*b^3*c^3*d*f*h*l^2 + 3*a*b^3*c^3*e*f*g*l^2 + 6*a^2 \\
& *b*c^4*d*f*h*l^2 - 3*a^2*b*c^4*e*f*g*l^2 + 3*a*b^2*c^4*e*f*g^2*m + 6*a*b^2* \\
& c^4*e*g^2*h*k + 3*a*b^2*c^4*f*g^2*h*j + 3*a*b^3*c^3*d*e*j*l^2 - 6*a*b^3*c^3 \\
& *e*g*h*k^2 - 3*a^2*b*c^4*d*e*j*l^2 + 12*a^2*b*c^4*e*g*h*k^2 - 3*a*b^2*c^4*d \\
& *g^2*j*k + 6*a*b^2*c^4*e*f^2*h*m + 3*a*b^2*c^4*f^2*g*h*k + 3*a*b^3*c^3*d*g* \\
& j*k^2 + 6*a*b^4*c^2*e*f*h*m^2 - 6*a^2*b*c^4*d*e*k^2*l - 3*a^2*b*c^4*d*g*j*k \\
& ^2 - 3*a^2*b*c^4*e*f*j*k^2 + 15*a*b^2*c^4*d*f^2*j*m - 9*a*b^2*c^4*d*f^2*k*l \\
& + 3*a*b^2*c^4*e^2*g*h*m - 6*a*b^3*c^3*d*f*j^2*m - 3*a*b^3*c^3*d*g*j^2*l - \\
& 3*a*b^3*c^3*d*h*j^2*k + 6*a*b^3*c^3*e*g*h^2*m + 3*a*b^3*c^3*f*g*h^2*l + 12* \\
& a*b^4*c^2*d*f*j*m^2 - 3*a*b^4*c^2*f*g*h*l^2 + 3*a^2*b*c^4*d*g*j^2*l + 6*a^2 \\
& *b*c^4*d*h*j^2*k - 6*a^2*b*c^4*e*f*j^2*l - 9*a^2*b*c^4*e*g*h^2*m - 3*a^2*b* \\
& c^4*e*g*j^2*k - 3*a^2*b*c^4*f*g*h^2*l + 9*a*b^2*c^4*d*e^2*l*m - 18*a*b^2*c^4 \\
& *e^2*f*j*m + 9*a*b^2*c^4*e^2*f*k*l + 9*a*b^2*c^4*e^2*g*j*l + 3*a*b^2*c^4*e \\
& ^2*h*j*k + 3*a*b^3*c^3*d*h^2*j*l + 6*a*b^3*c^3*e*h^2*j*k - 3*a*b^3*c^3*f*g^ \\
& ^2*h*m - 3*a*b^4*c^2*d*h*j*l^2 - 3*a^2*b*c^4*d*h^2*j*l - 9*a^2*b*c^4*e*h^2*j \\
& *k + 6*a^2*b*c^4*f*g^2*h*m - 9*a*b^2*c^4*d^2*f*l*m + 3*a*b^2*c^4*d^2*g*k*m \\
& + 3*a*b^2*c^4*d^2*h*j*m - 3*a*b^3*c^3*f*g^2*j*l - 3*a^2*b*c^4*e*g^2*j*m - 6 \\
& *a^2*b*c^4*e*g^2*k*l + 3*a^2*b*c^4*f*g^2*j*l + 6*a*b^3*c^3*f^2*g*j*m - 3*a* \\
& b^3*c^3*f^2*g*k*l + 6*a*b^4*c^2*e*h*j^2*m - 3*a*b^4*c^2*f*g*j^2*m - 6*a^2*b \\
& *c^4*e*f^2*l*m - 9*a^2*b*c^4*f^2*g*j*m + 3*a^2*b*c^4*f^2*g*k*l + 3*a^3*b*c^ \\
& ^3*d*g*l*m^2 + 6*a^3*b*c^3*d*h*k*m^2 + 12*a^3*b*c^3*e*f*l*m^2 - 3*a^3*b*c^3* \\
& e*g*k*m^2 - 18*a^3*b*c^3*e*h*j*m^2 + 9*a^3*b*c^3*f*g*j*m^2 - 12*a*b^3*c^3*e \\
& ^2*g*l*m - 6*a*b^3*c^3*e^2*h*k*m + 3*a*b^4*c^2*d*j^2*k*l - 6*a*b^4*c^2*e*h^ \\
& ^2*k*m + 15*a^2*b*c^4*e^2*g*l*m - 6*a^2*b*c^4*e^2*h*k*m - 9*a^3*b*c^3*e*g*l^ \\
& ^2*m - 12*a*b^3*c^3*e^2*j*k*l + 3*a*b^4*c^2*f*g^2*l*m + 15*a^2*b*c^4*e^2*j*k \\
& *l - 9*a^3*b*c^3*e*j*k*l^2 + 6*a^3*b*c^3*f*h*k^2*m - 6*a^3*b*c^3*g*h*k^2*l \\
& - 3*a*b^3*c^3*d^2*j*l*m + 3*a^2*b*c^4*d^2*j*l*m - 3*a^3*b*c^3*e*j*k^2*m + 3 \\
& *a^3*b*c^3*f*j*k^2*l + 3*a^2*b^4*c*d*k*l*m^2 + 6*a^2*b^4*c*e*j*l*m^2 - 3*a^ \\
& ^2*b^4*c*f*j*k*m^2 + 12*a^3*b*c^3*e*j^2*l*m + 3*a^3*b*c^3*g*h^2*l*m + 3*a^3* \\
& b*c^3*g*j^2*k*l + 15*a*b^4*c^2*e^2*k*l*m - 6*a^2*b^4*c*e*k*l^2*m + 3*a^3*b* \\
& c^3*h^2*j*k*l + 3*a^2*b^4*c*f*k^2*l*m + 3*a^3*b*c^3*g^2*j*l*m - 3*a^3*b^3*c \\
& *g*k*l*m^2 - 6*a^3*b^3*c*h*j*l*m^2 + 3*a^4*b*c^2*g*k*l*m^2 + 12*a^4*b*c^2*h \\
& *j*l*m^2 - 3*a^2*b^4*c*h^2*k*l*m + 6*a^3*b^3*c*h*k*l^2*m - 6*a^4*b*c^2*h*k* \\
& l^2*m - 3*a^3*b^3*c*j*k^2*l*m + 3*a^4*b*c^2*j*k^2*l*m + 3*b^6*c*d*f*k*l*m + \\
& 3*a^2*b^2*c^3*d*g*h*m^2 - 18*a^2*b^2*c^3*e*f*h*m^2 + 3*a^2*b^2*c^3*d*e*k*m \\
& ^2 - 15*a^2*b^2*c^3*d*f*j*m^2 + 9*a^2*b^2*c^3*f*g*h*l^2 - 9*a^2*b^2*c^3*d*e \\
& *l^2*m + 9*a^2*b^2*c^3*d*h*j*l^2 - 9*a^2*b^2*c^3*e*f*k*l^2 - 9*a^2*b^2*c^3* \\
& e*g*j*l^2 - 3*a^2*b^2*c^3*d*g*k^2*m + 3*a^2*b^2*c^3*e*f*k^2*m + 6*a^2*b^2*c \\
& ^3*e*g*k^2*l + 3*a^2*b^2*c^3*f*h*j*k^2 - 18*a^2*b^2*c^3*e*h*j^2*m + 3*a^2*b \\
& ^2*c^3*f*g*j^2*m + 3*a^2*b^2*c^3*g*h*j^2*k - 3*a^2*b^3*c^2*d*g*l*m^2 - 3*a^ \\
& ^2*b^3*c^2*d*h*k*m^2 - 6*a^2*b^3*c^2*e*f*l*m^2 + 24*a^2*b^3*c^2*e*h*j*m^2 - \\
& 9*a^2*b^3*c^2*f*g*j*m^2 - 6*a^2*b^2*c^3*d*h^2*l*m - 9*a^2*b^2*c^3*d*j^2*k*l \\
& + 15*a^2*b^2*c^3*e*h^2*k*m + 6*a^2*b^2*c^3*f*h^2*j*m - 6*a^2*b^2*c^3*f*h^2 \\
& *k*l - 6*a^2*b^2*c^3*g*h^2*j*l + 3*a^2*b^3*c^2*d*h*l^2*m + 6*a^2*b^3*c^2*e* \\
& g*l^2*m + 3*a^2*b^3*c^2*f*h*k*l^2 + 3*a^2*b^3*c^2*g*h*j*l^2 - 9*a^2*b^2*c^3 \\
& *f*g^2*l*m + 3*a^2*b^2*c^3*g^2*h*j*m + 6*a^2*b^3*c^2*e*j*k*l^2 - 3*a^2*b^3* \\
& c^2*f*h*k^2*m - 3*a^2*b^3*c^2*f*j*k^2*l + 6*a^3*b^2*c^2*f*h*l*m^2 + 3*a^3*b
\end{aligned}$$

$$\begin{aligned}
& ^2c^2g^hk^m - 6a^2b^2c^3f^2jk^m - 6a^2b^3c^2e^j^2l^m + 3a^2 \\
& ^2b^3c^2f^j^2k^m + 3a^2b^3c^2g^h^2l^m - 3a^2b^3c^2g^j^2k^l - 9 \\
& ^a^3b^2c^2d^k^l^m - 18a^3b^2c^2e^j^l^m + 6a^3b^2c^2f^j^k^m - 9 \\
& ^a^3b^2c^2g^h^l^2m - 24a^2b^2c^3e^2k^l^m + 3a^2b^3c^2h^2j \\
& ^k^l + 18a^3b^2c^2e^k^l^2m - 9a^3b^2c^2h^j^k^l^2 - 3a^2b^3c^2g \\
& ^2j^l^m - 9a^3b^2c^2f^k^2l^m + 3a^3b^2c^2h^j^k^2m + 6a^3b^2c^2 \\
& ^2h^j^2l^m + 3a^3b^2c^2h^2k^l^m - 3a^2b^3c^5d^e^g^j^2 + 9a^2b^3c^5e^f \\
& ^g^h^2 + 9a^2b^3c^5d^e^h^2j - 3a^2b^3c^5e^f^g^2j + 3a^2b^3c^5d^f^2g^l + \\
& ^6a^2b^3c^5d^f^2h^k - 3a^2b^3c^5e^f^2g^k - 6a^2b^3c^5e^f^2h^j - 3a^2b^3c^5 \\
& ^e^2f^g^l - 3a^2b^3c^5d^e^2j^l + 6a^2b^3c^5d^2f^h^m + 6a^2b^3c^5d^2g^h^ \\
& ^l + 3b^2c^5d^e^f^g^j - 3a^2b^3c^5d^2e^j^m + 3a^2b^3c^5d^2f^j^l + 3a^2b \\
& ^3c^5d^2g^j^k - 3b^3c^4d^e^f^g^m + 6b^3c^4d^e^f^h^l - 3b^3c^4d^f^ \\
& ^g^h^j - 3b^3c^4d^e^f^j^k - 6a^2b^5c^e^h^j^m^2 + 3a^2b^5c^f^g^j^m^2 + 1 \\
& ^2a^2c^5e^f^g^h^l + 12a^2c^5d^e^f^k^m + 12a^2c^5d^e^g^k^l + 12a^2c^ \\
& ^5d^e^h^j^l + 3b^4c^3d^f^g^h^m + 3b^4c^3d^e^f^k^m + 3b^4c^3d^f^g \\
& ^j^l + 3b^4c^3d^f^h^j^k - 3b^5c^2d^f^g^l^m - 3b^5c^2d^f^h^k^m - 3b \\
& ^5c^2d^f^j^k^l - 12a^3c^4e^g^h^l^m - 12a^3c^4d^f^k^l^m - 12a^3c^4 \\
& ^e^f^j^l^m - 12a^3c^4e^h^j^k^l - 6a^2b^2c^4d^f^g^h^m - 12a^2b^2c^4e \\
& ^f^g^h^l - 12a^2b^2c^4d^e^f^k^m + 3a^2b^2c^4d^e^g^j^m - 12a^2b^2c^4d^ \\
& ^e^h^j^l - 3a^2b^2c^4d^f^g^j^l - 6a^2b^2c^4d^f^h^j^k + 3a^2b^2c^4e^f^g \\
& ^j^k + 6a^2b^3c^3d^e^h^l^m + 9a^2b^3c^3d^f^g^l^m + 12a^2b^3c^3d^f^h^k \\
& ^m - 3a^2b^3c^3d^g^h^j^m - 3a^2b^3c^3e^f^g^k^m - 12a^2b^3c^3e^f^h^j^m \\
& + 6a^2b^3c^3e^f^h^k^l + 6a^2b^3c^3e^g^h^j^l - 3a^2b^3c^3f^g^h^j^k - \\
& ^6a^2b^3c^4d^f^g^l^m - 12a^2b^3c^4d^f^h^k^m + 6a^2b^3c^4e^f^g^k^m + 24 \\
& ^a^2b^3c^4e^f^h^j^m - 3a^2b^3c^3d^e^j^k^m + 9a^2b^3c^3d^f^j^k^l + 6a^ \\
& ^2b^3c^4d^e^j^k^m - 6a^2b^3c^4d^f^j^k^l - 6a^2b^4c^2e^g^h^l^m + 3a^2b^4 \\
& ^c^2f^g^h^k^m - 15a^2b^4c^2d^f^k^l^m + 3a^2b^4c^2d^g^j^l^m + 3a^2b^4c \\
& ^2d^h^j^k^m - 6a^2b^4c^2e^h^j^k^l + 3a^2b^4c^2f^g^j^k^l + 12a^3b^3c^3 \\
& ^e^h^k^l^m - 6a^3b^3c^3f^g^k^l^m - 12a^3b^3c^3f^h^j^l^m - 6a^3b^3c^3d \\
& ^j^k^l^m + 3a^2b^4c^3g^j^k^l^m + 12a^2b^2c^3e^g^h^l^m - 6a^2b^2c^3 \\
& ^f^g^h^k^m + 24a^2b^2c^3d^f^k^l^m - 3a^2b^2c^3d^g^j^l^m - 6a^2b^2 \\
& ^c^3d^h^j^k^m + 12a^2b^2c^3e^f^j^l^m + 3a^2b^2c^3e^g^j^k^m + 12a^ \\
& ^2b^2c^3e^h^j^k^l - 3a^2b^2c^3f^g^j^k^l - 18a^2b^3c^2e^h^k^l^m + \\
& ^9a^2b^3c^2f^g^k^l^m - 3a^2b^3c^2g^h^j^k^m + 9a^2b^3c^2d^j^k^l^m \\
& - 3a^3b^2c^2g^j^k^l^m + 6a^2b^3c^5d^e^f^g^m - 12a^2b^3c^5d^e^f^h^l - 1 \\
& ^2a^2b^3c^5d^e^g^h^k + 6a^2b^3c^5d^e^f^j^k + 6a^2b^5c^e^h^k^l^m - 3a^2b^5c \\
& ^f^g^k^l^m - 3a^2b^5c^d^j^k^l^m))/c^3 - (a^6c^5f^5 - c^7d^4e^4 + c^7d^4h \\
& - a^6c^5m^5 - c^7d^3f^2 + a^5b^2m^5 + a^2c^5d^4h - a^3b^3c^3j^5 + \\
& ^a^6c^5d^3j^2 + 3c^7d^2e^2f - a^2c^5g^4h + a^3c^4f^j^4 - a^4c^3d \\
& ^l^4 + a^b^6f^2m^3 + 2a^3b^4f^m^4 - 5a^2c^5f^4m - a^3c^4h^4k + \\
& ^a^4c^3h^k^4 + 5a^5c^2f^m^4 - 2a^4b^3j^m^4 - a^4c^3j^4m + a^5c^2 \\
& ^k^l^4 - a^2c^5f^2h^3 - b^2c^5d^3j^2 + 2a^2c^5f^3j^2 - a^2c^5d^ \\
& ^3m^2 + a^3c^4f^2k^3 + a^3c^4h^3j^2 - b^4c^3d^3m^2 + 10a^3c^4f^ \\
& ^3m^2 - 10a^4c^3f^2m^3 - a^4c^3h^3m^2 - a^4c^3j^2k^3 + a^3b^4j^ \\
& ^2m^3 - 2a^5c^2j^2m^3 + a^5c^2k^3m^2 - 2c^7d^3e^g + a^6c^4e^4k - \\
& ^b^6c^4d^4l + b^7d^4e^m^3 + a^b^6c^5e^g^4 - 2a^6c^4d^e^g^3 + b^6c^4d^e^f^ \\
& ^3 - 3a^6c^5f^4j - 4a^6c^4d^f^3h - 4a^6c^4e^f^3g + 3b^6c^4d^e^3h - \\
& ^2a^6c^4e^3g^h - b^6c^4d^3g^h + 4a^6c^4d^e^3l - 2a^6c^4e^3f^j + 2b^ \\
& ^6c^4d^3e^k + 2b^6c^4d^3f^j - b^6c^4d^3e^l^3 + 2a^6c^4d^3f^m + 2a^6c^4d \\
& ^3g^l - 4a^6c^4d^3h^k - a^b^6d^4h^m^3 - a^b^6e^g^m^3 + a^5b^6c^j^m^4 - \\
& ^3a^2b^2c^3f^2k^3 + 4a^2b^3c^2f^2l^3 - 10a^2b^2c^3f^3m^2 + 12 \\
& ^a^3b^2c^2f^2m^3 + a^3b^2c^2j^2k^3 - a^b^2c^4d^h^4 - a^b^2c^5f^2g \\
& ^3 + a^b^2c^5e^3j^2 + 3a^6c^4d^f^2g^2 + 3b^6c^4d^2e^g^2 + a^2b^6c^4g \\
& ^h^4 - b^2c^5d^e^g^3 + 3a^6c^4d^2f^h^2 + 3a^6c^4e^2f^g^2 - a^2b^4c^ \\
& ^d^l^4 - 2a^3b^3c^3e^k^4 + b^3c^4d^e^h^3 + 3a^6c^4e^2f^2h + 2a^2c^5 \\
& ^d^e^j^3 - a^b^5c^f^2l^3 - 3b^6c^4d^2e^2j - 2a^2c^5e^g^h^3 - b^4c^ \\
& ^3d^e^j^3 + 3a^2b^2c^4f^4m + 3a^6c^4d^2f^2k + a^3b^3c^3g^l^4 + 4a^3 \\
& ^c^4d^e^l^3 - 2a^4b^3c^2g^l^4 - 6a^4b^2c^3f^m^4 + b^5c^2d^e^k^3 - 3a \\
& ^6c^4d^2e^2m - 3b^2c^5d^e^3l + 2a^2c^5d^g^3l + 2a^2c^5e^g^3k
\end{aligned}$$

$$\begin{aligned}
& + 2*a^2*c^5*f*g^3*j - 4*a^3*c^4*d*h*k^3 + 2*a^3*c^4*e*g*k^3 - 2*b^2*c^5*d^3*f*m + b^2*c^5*d^3*g*l + b^2*c^5*d^3*h*k + 4*a^2*c^5*f^3*g*l + 4*a^2*c^5*f^3*h*k - 2*a^3*c^4*g*h*j^3 + a^4*b*c^2*k^4*l - a^4*b^2*c*k*l^4 + 4*a^4*c^3*d*h*m^3 + 4*a^4*c^3*e*g*m^3 - 2*a^3*c^4*d*j^3*l - 2*a^3*c^4*e*j^3*k + a^2*b^5*g*h*m^3 + 2*a^3*c^4*f*h^3*m + 2*a^3*c^4*g*h^3*l + 2*a^4*c^3*g*h*l^3 - a^5*b*c*l^3*m^2 + a^2*b^5*d*l*m^3 + a^2*b^5*e*k*m^3 - 2*a^2*b^5*f*j*m^3 + 2*a^2*c^5*e^3*j*m - 4*a^2*c^5*e^3*k*l - 4*a^4*c^3*e*k*l^3 + 2*a^4*c^3*f*j*l^3 + 2*b^3*c^4*d^3*j*m - b^3*c^4*d^3*k*l - 2*a^3*c^4*g^3*j*m - 2*a^3*c^4*g^3*k*l - 2*a^4*c^3*f*k^3*m - 2*a^4*c^3*g*k^3*l - a^3*b^4*g*l*m^3 - a^3*b^4*h*k*m^3 - 4*a^5*c^2*g*l*m^3 - 4*a^5*c^2*h*k*m^3 + 2*a^4*c^3*j^3*k*l + a^4*b^3*k*l*m^3 - 2*a^5*c^2*j*l^3*m + a*b^2*c^4*f^2*h^3 + 3*a*b^2*c^4*f^3*j^2 - a*b^3*c^3*f^2*j^3 - 4*a^2*b*c^4*f^2*j^3 + 2*a^2*b^2*c^3*f*j^4 + a^2*b^3*c^2*e*k^4 + 3*a^3*b^2*c^2*d*l^4 - 3*b^2*c^5*d*e^2*h^2 + 3*a*b^2*c^4*d^3*m^2 + a*b^4*c^2*f^2*k^3 + a*b^3*c^3*e^3*m^2 - 2*a^2*b*c^4*e^3*m^2 - 3*a^3*b*c^3*f^2*l^3 + 3*a*b^4*c^2*f^3*m^2 - 5*a^2*b^4*c*f^2*m^3 - 6*a^2*c^5*d*e^2*l^2 - 3*a^2*c^5*d*f^2*k^2 - 3*a^2*c^5*d*g^2*j^2 + 3*a^2*c^5*f*g^2*h^2 - a^3*b^2*c^2*h*k^4 + 3*b^3*c^4*d^2*e*k^2 + 3*a^2*c^5*d^2*f*l^2 + 3*a^2*c^5*e^2*f*k^2 + a^3*b*c^3*g^3*m^2 - 3*b^4*c^3*d*e^2*l^2 + 6*a^2*c^5*d^2*h*k^2 - 3*a^2*c^5*e^2*h*j^2 + 3*b^2*c^5*d^2*e^2*m - 3*a^2*c^5*f^2*g^2*k - a^3*b^3*c*j^2*l^3 + 3*a^3*c^4*d*g^2*m^2 + 2*a^4*b*c^2*j^2*l^3 - 3*a^2*c^5*d^2*h^2*m - 3*a^2*c^5*d^2*j^2*k - 3*a^2*c^5*e^2*g^2*m + 3*a^3*b^2*c^2*j^4*m - 3*a^3*b^3*c*j^3*m^2 + 3*a^3*c^4*d*j^2*k^2 + 3*a^3*c^4*f*g^2*l^2 + 3*a^3*c^4*f*h^2*k^2 + 3*a^4*b^2*c*j^2*m^3 + 3*a^3*c^4*e^2*h*m^2 + 3*a^3*c^4*f^2*h*l^2 + 3*a^3*c^4*d^2*k*m^2 + 6*a^3*c^4*e^2*k*l^2 - 3*a^3*c^4*g^2*h^2*m + 3*a^3*c^4*g^2*j^2*k - 3*a^4*c^3*d*k^2*m^2 - 3*a^3*c^4*d^2*l^2*m - 3*a^3*c^4*e^2*k^2*m - 6*a^3*c^4*f^2*j^2*m + 6*a^4*c^3*f*j^2*m^2 + 3*a^4*c^3*f*k^2*l^2 - 3*a^4*c^3*h*j^2*l^2 - 3*a^4*c^3*g^2*k*m^2 - 3*a^4*c^3*g^2*l^2*m - 3*a^4*c^3*h^2*k^2*m + 3*a^5*c^2*h*l^2*m^2 - 3*a^5*c^2*k^2*l^2*m + 9*a*b^2*c^4*d*e^2*l^2 + 3*a*b^2*c^4*d*f^2*k^2 - 9*a^2*b^2*c^3*d*e*l^3 + 10*a^2*b^3*c^2*d*e*m^3 - 3*a*b^2*c^4*d^2*h*k^2 - 3*a*b^3*c^3*e*f^2*l^2 + 3*a*b^3*c^3*e*g^2*k^2 + 6*a^2*b*c^4*e*f^2*l^2 - 3*a^2*b*c^4*e*g^2*k^2 + 3*a^2*b^2*c^3*d*h*k^3 + 3*a*b^2*c^4*f^2*g^2*k + 3*a*b^3*c^3*d^2*g*m^2 + 3*a*b^3*c^3*e^2*g*l^2 - 3*a*b^3*c^3*f^2*g*k^2 - 3*a*b^4*c^2*d*h^2*l^2 - 6*a^2*b*c^4*d^2*g*m^2 - 6*a^2*b*c^4*e^2*g*l^2 + 6*a^2*b*c^4*f^2*g*k^2 - a^2*b^3*c^2*d*h*l^3 - 4*a^2*b^3*c^2*e*g*l^3 + 3*a*b^2*c^4*d^2*h^2*m + 3*a*b^2*c^4*e^2*g^2*m - 3*a^2*b*c^4*g^2*h^2*j - a^2*b^2*c^3*g*h*j^3 - 6*a^3*b^2*c^2*d*h*m^3 - 6*a^3*b^2*c^2*e*g*m^3 - 3*a*b^3*c^3*f^2*h^2*l + 3*a*b^4*c^2*f^2*h*l^2 - 3*a^2*b*c^4*d^2*j*l^2 - 3*a^2*b*c^4*e^2*j*k^2 + 6*a^2*b*c^4*f^2*h^2*l - a^2*b^2*c^3*d*j^3*l - a^2*b^2*c^3*e*j^3*k + a^2*b^3*c^2*g*h*k^3 + 3*a^3*b*c^3*e*h^2*m^2 - 3*a^2*b^2*c^3*g*h^3*l + a^2*b^3*c^2*d*k^3*l - 2*a^2*b^3*c^2*f*j*k^3 - 3*a^3*b*c^3*e*j^2*l^2 - 3*a^3*b*c^3*g*h^2*l^2 - 3*a^3*b*c^3*g*j^2*k^2 + 3*a^3*b^2*c^2*e*k*l^3 - 6*a^3*b^2*c^2*f*j*l^3 + 3*a*b^4*c^2*f^2*j^2*m - 6*a^2*b^3*c^2*f*j^3*m + 6*a^2*b^4*c*f*j^2*m^2 - 6*a^3*b*c^3*f^2*j*m^2 - 3*a^3*b*c^3*g^2*j*l^2 - 3*a^3*b*c^3*h^2*j*k^2 + 3*a^3*b*c^3*e^2*l*m^2 + 3*a^3*b*c^3*g^2*k^2*l - 3*a^3*b*c^3*h^2*j^2*l + 2*a^3*b^2*c^2*f*k^3*m - a^3*b^2*c^2*g*k^3*l - 3*a^3*b^2*c^2*j^3*k*l - 3*a^4*b*c^2*j*k^2*l^2 + 3*a^4*b^2*c*k^2*l^2*m + a*b*c^5*d*e*h^3 + a*b*c^5*d*g^3*h + 3*a*b*c^5*f^3*g*h - 3*b*c^6*d*e^2*f*g + 3*a*b*c^5*d*f^3*l + 3*a*b*c^5*e*f^3*k - 6*a*b^5*c*d*e*m^3 - 3*b*c^6*d^2*e*f*h + 6*a*c^6*d*e*f^2*j + 2*a*b*c^5*e^3*f*m + 2*a*b*c^5*e^3*g*l - a*b*c^5*e^3*h*k + a*b^5*c*d*h*l^3 + a*b^5*c*e*g*l^3 - 6*a*c^6*d*e^2*f*k - 6*a*c^6*d^2*e*f*l + 6*a*c^6*d^2*e*g*k - 6*a*c^6*d^2*f*g*j - 4*a*b*c^5*d^3*j*m + 2*a*b*c^5*d^3*k*l - 3*b^6*c*d*e*j*m^2 + a^5*b*c*k*l*m^3 - 3*a^2*b^2*c^3*d*g^2*m^2 + 6*a^2*b^2*c^3*d*h^2*l^2 - 3*a^2*b^2*c^3*e^2*h*m^2 - 9*a^2*b^2*c^3*f^2*h*l^2 - 3*a^2*b^2*c^3*g^2*h*k^2 + 3*a^2*b^3*c^2*g*h^2*l^2 - 3*a^2*b^2*c^3*d^2*k*m^2 - 3*a^2*b^2*c^3*e^2*k*l^2 + 3*a^2*b^2*c^3*g^2*h^2*m + 3*a^2*b^2*c^3*d^2*l^2*m + 3*a^2*b^2*c^3*e^2*k^2*m + 3*a^2*b^2*c^3*f^2*j^2*m + 6*a^2*b^3*c^2*f^2*j*m^2 - 9*a^3*b^2*c^2*f*j^2*m^2 + 3*a^3*b^2*c^2*h*j^2*l^2 - 3*a^3*b^2*c^2*h^2*k*l^2 + 3*a^3*b^2*c^2*g^2*l^2*m + 3*a^3*b^2*c^2*h^2*k^2*m - 3*a*b*c^5*e*f^2*h^2 + 3*a*b^2*c^4*d*e*j^3 - 6*a*b*c^5*d^2*e*k^2 + 3*a*b*c^5*e^2*g*h^2 - a*b^2*c^4*e*g*h^3 - 4*a*b
\end{aligned}$$

$$\begin{aligned}
& ^3c^3d^2e^2k^3 + 6a^2b^2c^4d^2e^2k^3 + 3a^2b^2c^5d^2g^2j^2 + 5a^2b^4c^2d^2e^2l^3 - 3a^2b^2c^5d^2h^2j - 3a^2b^2c^5e^2g^2j + a^2b^3c^3d^2h^2j^3 + a^2b^3c^3e^2g^2j^3 - 2a^2b^2c^4d^2h^2j^3 - 2a^2b^2c^4e^2g^2j^3 - 7a^3b^2c^3d^2e^2m^3 - 3a^2b^2c^5d^2g^2l - 3a^2b^2c^5e^2f^2l - 3a^2b^2c^4e^2g^3k - a^2b^4c^2d^2h^2k^3 - a^2b^4c^2e^2g^2k^3 + 3a^2b^3c^3d^2h^3l - 5a^2b^2c^4d^2h^3l + a^2b^2c^4e^2h^3k - 2a^2b^2c^4f^2h^3j - 3a^3b^2c^3d^2h^2l^3 + 6a^3b^2c^3e^2g^2l^3 - 3b^2c^5d^2e^2f^2j + 3b^3c^4d^2e^2f^2j^2 - 3a^2b^2c^4f^3g^2l - 3a^2b^2c^4f^3h^2k + 5a^2b^4c^2d^2h^2m^3 + 5a^2b^4c^2e^2g^2m^3 - 6a^2c^5d^2e^2g^2k^2 + 3b^2c^5d^2e^2f^2k + 3b^2c^5d^2e^2g^2j + 3a^2b^2c^4g^3h^2k + a^3b^2c^3g^2h^2k^3 + 3b^2c^5d^2e^2f^2l - 6b^2c^5d^2e^2g^2k + 3b^2c^5d^2e^2h^2j + 3b^3c^4d^2e^2g^2k - 3b^4c^3d^2e^2g^2k^2 - a^2b^4c^2g^2h^2l^3 - 6a^2c^5d^2f^2h^2k + 6a^2c^5e^2f^2h^2j - 2a^3b^2c^3d^2k^3l + 4a^3b^2c^3f^2j^2k^3 + 3b^3c^4d^2e^2f^2m + 3b^5c^2d^2e^2f^2m^2 - 2a^2b^2c^4e^3j^2m + a^2b^2c^4e^3k^2l - a^2b^4c^2e^2k^2l^3 + 2a^2b^4c^2f^2j^2l^3 - 6a^2c^5d^2f^2g^2m - 6a^2c^5e^2f^2g^2l - 4a^3b^3c^2g^2h^2m^3 + 3a^4b^2c^2g^2h^2m^3 - 3b^3c^4d^2e^2g^2m + 6b^3c^4d^2e^2h^2l - 3b^4c^3d^2e^2h^2l + 3b^5c^2d^2e^2h^2l^2 - 6a^2b^3c^3f^3j^2m + 3a^2b^3c^3f^3k^2l - 3a^2b^5c^2f^2j^2m^2 + 8a^2b^2c^4f^3j^2m - 7a^2b^2c^4f^3k^2l + 12a^2c^5d^2f^2h^2m + 12a^2c^5e^2f^2g^2m - 6a^2c^5e^2f^2h^2l - 6a^2c^5f^2g^2h^2j + 4a^3b^2c^3f^2j^3m + 4a^3b^2c^3g^2j^3l + 4a^3b^2c^3h^2j^3k - 4a^3b^3c^2d^2l^2m^3 - 4a^3b^3c^2e^2k^2m^3 + 2a^3b^3c^2f^2j^2m^3 - 12a^3c^4d^2f^2h^2m^2 - 12a^3c^4e^2f^2g^2m^2 + 3a^4b^2c^2d^2l^2m^3 + 3a^4b^2c^2e^2k^2m^3 - 3b^3c^4d^2e^2j^2k - 3b^3c^4d^2e^2h^2m - 6a^2c^5d^2f^2j^2l - 6a^2c^5e^2f^2j^2k - 6a^2c^5e^2f^2h^2m + 6a^2c^5e^2g^2h^2l + 6a^3c^4d^2e^2j^2m^2 - 6a^3c^4e^2g^2h^2l^2 - 3b^3c^4d^2e^2j^2l + 6a^2c^5d^2e^2k^2m + 6a^2c^5e^2f^2j^2l + 3a^3b^2c^3h^3k^2l - 2a^3b^3c^2f^2l^3m + a^3b^3c^2h^2k^2l^3 - 6a^3c^4d^2f^2k^2l^2 - 6a^3c^4e^2f^2j^2l^2 + 4a^4b^2c^2f^2l^3m + a^4b^2c^2h^2k^2l^3 + 3b^5c^2d^2e^2j^2m + 6a^2c^5d^2e^2l^2m - 6a^2c^5d^2f^2k^2m + 6a^2c^5d^2g^2j^2m - 6a^2c^5d^2g^2k^2l + 6a^3c^4d^2f^2k^2m + 6a^3c^4d^2g^2k^2l - 6a^3c^4e^2f^2k^2l - 6a^3c^4f^2g^2j^2k^2 + 3a^4b^2c^2g^2l^2m^3 + 3a^4b^2c^2h^2k^2m^3 + 3b^4c^3d^2e^2k^2m + 6a^3c^4e^2h^2j^2l + 3b^4c^3d^2e^2l^2m + 6a^3c^4d^2h^2k^2m - 6a^3c^4e^2h^2j^2m - 6a^3c^4f^2h^2j^2l - 2a^4b^2c^2j^2k^3m + 6a^3c^4e^2g^2l^2m + 6a^3c^4f^2g^2k^2m + 2a^4b^2c^2j^2l^3m - 12a^3c^4f^2g^2l^2m - 12a^3c^4f^2h^2k^2m - 6a^4c^3e^2h^2l^2m^2 + 12a^4c^3f^2g^2l^2m^2 + 12a^4c^3f^2h^2k^2m^2 - 6a^4c^3g^2h^2j^2m^2 + 6a^3c^4f^2j^2k^2l - 6a^4c^3d^2j^2l^2m^2 - 6a^4c^3e^2j^2k^2m^2 - 6a^4c^3f^2h^2l^2m - 6a^3c^4e^2j^2l^2m + 6a^4c^3d^2k^2l^2m + 6a^4c^3e^2j^2l^2m + 6a^4c^3e^2k^2l^2m + 6a^4c^3g^2j^2k^2m + 6a^4c^3h^2j^2l^2m + 6a^5c^2j^2k^2l^2m + 6a^2b^2c^4d^2e^2g^2k^2 - 3a^2b^2c^4d^2f^2h^2j^2 - 3a^2b^2c^4e^2f^2g^2j^2 - 15a^2b^3c^3d^2e^2f^2m^2 + 15a^2b^2c^4d^2e^2f^2m^2 + 3a^2b^2c^4d^2e^2h^2l + 3a^2b^2c^4d^2f^2h^2k + 3a^2b^2c^4d^2g^2h^2j - 9a^2b^3c^3d^2e^2h^2l^2 + 9a^2b^2c^4d^2e^2h^2l^2 - 3a^2b^2c^4d^2f^2g^2l^2 - 3a^2b^2c^4d^2g^2h^2k + 3a^2b^2c^4e^2f^2g^2l + 3a^2b^2c^4e^2g^2h^2j + 3a^2b^3c^3d^2g^2h^2k^2 - 3a^2b^2c^4d^2g^2h^2k^2 - 3a^2b^2c^4e^2f^2h^2k^2 - 6a^2b^2c^4d^2f^2h^2m - 6a^2b^2c^4e^2f^2g^2m + 6a^2b^2c^4e^2f^2h^2l - 3a^2b^2c^4f^2g^2h^2j - 3a^2b^4c^2d^2f^2h^2m^2 - 3a^2b^4c^2e^2f^2g^2m^2 - 6a^2b^2c^4d^2f^2j^2k^2 + 9a^2b^2c^4f^2g^2h^2j^2 - 3a^2b^2c^4d^2f^2j^2l - 3a^2b^2c^4e^2f^2j^2k - 6a^2b^2c^4e^2g^2h^2l - 12a^2b^3c^3d^2e^2j^2m - 3a^2b^3c^3d^2g^2h^2m + 3a^2b^3c^3e^2g^2h^2l + 15a^2b^4c^2d^2e^2j^2m^2 - 3a^2b^4c^2e^2g^2h^2l^2 + 3a^2b^2c^4d^2e^2j^2m + 9a^2b^2c^4d^2f^2j^2l + 3a^2b^2c^4d^2g^2h^2m + 9a^2b^2c^4e^2f^2j^2k - 3a^2b^2c^4f^2g^2h^2k - 9a^2b^2c^4d^2e^2k^2m + 3a^2b^2c^4e^2g^2j^2k - 3a^2b^3c^3d^2h^2j^2k - 3a^2b^3c^3e^2g^2h^2m + 6a^2b^2c^4d^2h^2j^2k + 3a^2b^2c^4e^2g^2h^2m - 3a^2b^2c^4f^2g^2h^2l - 9a^2b^2c^4d^2e^2l^2m - 6a^2b^2c^4d^2g^2j^2m + 3a^2b^2c^4d^2g^2k^2l + 3a^2b^2c^4d^2h^2j^2l - 3a^2b^3c^3e^2g^2j^2l + 3a^2b^3c^3f^2g^2h^2m + 6a^2b^2c^4d^2g^2j^2m + 6a^2b^2c^4e^2g^2j^2l - 6a^2b^2c^4f^2g^2j^2k - 3a^2b^2c^4f^2g^2h^2m - 3a^3b^2c^3f^2g^2h^2m^2 + 3a^2b^3c^3d^2f^2l^2m + 3a^2b^3c^3e^2f^2k^2m + 3a^2b^3c^3f^2g^2j^2l + 3a^2b^3c^3f^2h^2j^2k - 3a^2b^4c^2d^2h^2j^2m - 3a^2b^4c^2e^2g^2j^2m - 3a^2b^2c^4d^2f^2l^2m - 3a^2b^2c^4e^2f^2k^2m -
\end{aligned}$$



$$\begin{aligned}
& ^2c^3*eg*hk*m - 12a^2*b^2*c^3*f*g*h*j*m + 3a^2*b^2*c^3*f*g*h*k*1 + 24a^2*b^2*c^3*d*e*k*1*m - 12a^2*b^2*c^3*d*f*j*1*m - 6a^2*b^2*c^3*d*h*j*k*1 \\
& - 12a^2*b^2*c^3*e*f*j*k*m - 6a^2*b^2*c^3*eg*j*k*1 + 9a^2*b^3*c^2*d*h*k*1*m + 9a^2*b^3*c^2*eg*k*1*m + 6a^2*b^3*c^2*f*g*j*1*m + 6a^2*b^3*c^2*f*h \\
& *j*k*m - 3a^2*b^3*c^2*g*h*j*k*1 - 3a^3*b^2*c^2*g*h*k*1*m + 12a^3*b^2*c^2 \\
& *f*j*k*1*m + 6a*b*c^5*d*e*f*g*1 + 6a*b*c^5*d*e*f*h*k - 3a*b^5*c*d*h*k*1* \\
& m - 3a*b^5*c*eg*k*1*m)/c^3 - \text{root}(34992*a^4*b^2*c^8*z^6 - 8748*a^3*b^4*c^7 \\
& *z^6 + 729*a^2*b^6*c^6*z^6 - 46656*a^5*c^9*z^6 + 34992*a^4*b^3*c^6*m*z^5 - \\
& 8748*a^3*b^5*c^5*m*z^5 + 729*a^2*b^7*c^4*m*z^5 - 34992*a^4*b^2*c^7*j*z^5 + \\
& 8748*a^3*b^4*c^6*j*z^5 - 729*a^2*b^6*c^5*j*z^5 - 46656*a^5*b*c^7*m*z^5 + 4 \\
& 6656*a^5*c^8*j*z^5 + 34992*a^5*b*c^6*j*m*z^4 - 11664*a^5*b*c^6*k*1*z^4 + 38 \\
& 88*a^4*b*c^7*f*j*z^4 + 3888*a^4*b*c^7*e*k*z^4 + 3888*a^4*b*c^7*d*1*z^4 + 38 \\
& 88*a^4*b*c^7*g*h*z^4 + 3888*a^3*b*c^8*d*e*z^4 + 243*a*b^5*c^6*d*e*z^4 - 252 \\
& 72*a^4*b^3*c^5*j*m*z^4 + 9720*a^4*b^3*c^5*k*1*z^4 + 6075*a^3*b^5*c^4*j*m*z^4 \\
& - 2673*a^3*b^5*c^4*k*1*z^4 - 486*a^2*b^7*c^3*j*m*z^4 + 243*a^2*b^7*c^3*k* \\
& 1*z^4 - 7776*a^4*b^2*c^6*h*k*z^4 - 7776*a^4*b^2*c^6*g*1*z^4 - 7776*a^4*b^2* \\
& c^6*f*m*z^4 + 2430*a^3*b^4*c^5*h*k*z^4 + 2430*a^3*b^4*c^5*g*1*z^4 + 2430*a^3 \\
& *b^4*c^5*f*m*z^4 - 243*a^2*b^6*c^4*h*k*z^4 - 243*a^2*b^6*c^4*g*1*z^4 - 243 \\
& *a^2*b^6*c^4*f*m*z^4 - 1944*a^3*b^3*c^6*f*j*z^4 - 1944*a^3*b^3*c^6*e*k*z^4 \\
& - 1944*a^3*b^3*c^6*d*1*z^4 + 243*a^2*b^5*c^5*f*j*z^4 + 243*a^2*b^5*c^5*e*k* \\
& z^4 + 243*a^2*b^5*c^5*d*1*z^4 - 1944*a^3*b^3*c^6*g*h*z^4 + 243*a^2*b^5*c^5* \\
& g*h*z^4 + 3888*a^3*b^2*c^7*eg*z^4 + 3888*a^3*b^2*c^7*d*h*z^4 - 486*a^2*b^4 \\
& *c^6*eg*z^4 - 486*a^2*b^4*c^6*d*h*z^4 - 1944*a^2*b^3*c^7*d*e*z^4 + 7776*a^5 \\
& *c^7*h*k*z^4 + 7776*a^5*c^7*g*1*z^4 + 7776*a^5*c^7*f*m*z^4 - 7776*a^4*c^8* \\
& eg*z^4 - 7776*a^4*c^8*d*h*z^4 - 13608*a^5*b^2*c^5*m^2*z^4 + 11421*a^4*b^4* \\
& c^4*m^2*z^4 - 2916*a^3*b^6*c^3*m^2*z^4 + 243*a^2*b^8*c^2*m^2*z^4 + 13608*a^4 \\
& *b^2*c^6*j^2*z^4 - 3159*a^3*b^4*c^5*j^2*z^4 + 243*a^2*b^6*c^4*j^2*z^4 + 19 \\
& 44*a^3*b^2*c^7*f^2*z^4 - 243*a^2*b^4*c^6*f^2*z^4 - 3888*a^6*c^6*m^2*z^4 - 1 \\
& 9440*a^5*c^7*j^2*z^4 - 3888*a^4*c^8*f^2*z^4 + 3078*a^4*b^4*c^3*k*1*m*z^3 - \\
& 2592*a^5*b^2*c^4*k*1*m*z^3 - 891*a^3*b^6*c^2*k*1*m*z^3 - 4536*a^4*b^3*c^4*j \\
& *k*1*z^3 + 1053*a^3*b^5*c^3*j*k*1*z^3 - 81*a^2*b^7*c^2*j*k*1*z^3 - 2592*a^4 \\
& *b^3*c^4*h*k*m*z^3 - 2592*a^4*b^3*c^4*g*1*m*z^3 + 810*a^3*b^5*c^3*h*k*m*z^3 \\
& + 810*a^3*b^5*c^3*g*1*m*z^3 - 81*a^2*b^7*c^2*h*k*m*z^3 - 81*a^2*b^7*c^2*g* \\
& 1*m*z^3 + 7776*a^4*b^2*c^5*f*j*m*z^3 + 3888*a^4*b^2*c^5*h*j*k*z^3 + 3888*a^4 \\
& *b^2*c^5*g*j*1*z^3 - 3888*a^4*b^2*c^5*f*k*1*z^3 - 2916*a^3*b^4*c^4*f*j*m*z \\
& ^3 + 1458*a^3*b^4*c^4*f*k*1*z^3 - 972*a^3*b^4*c^4*h*j*k*z^3 - 972*a^3*b^4*c^4 \\
& *g*j*1*z^3 - 486*a^3*b^4*c^4*e*k*m*z^3 - 486*a^3*b^4*c^4*d*1*m*z^3 + 324* \\
& a^2*b^6*c^3*f*j*m*z^3 - 162*a^2*b^6*c^3*f*k*1*z^3 + 81*a^2*b^6*c^3*h*j*k*z^3 \\
& + 81*a^2*b^6*c^3*g*j*1*z^3 + 81*a^2*b^6*c^3*e*k*m*z^3 + 81*a^2*b^6*c^3*d* \\
& 1*m*z^3 - 486*a^3*b^4*c^4*g*h*m*z^3 + 81*a^2*b^6*c^3*g*h*m*z^3 + 648*a^3*b^ \\
& 3*c^5*e*j*k*z^3 + 648*a^3*b^3*c^5*d*j*1*z^3 - 81*a^2*b^5*c^4*e*j*k*z^3 - 81 \\
& *a^2*b^5*c^4*d*j*1*z^3 + 2592*a^3*b^3*c^5*eg*m*z^3 + 2592*a^3*b^3*c^5*d*h* \\
& m*z^3 - 1296*a^3*b^3*c^5*f*h*k*z^3 - 1296*a^3*b^3*c^5*f*g*1*z^3 - 1296*a^3* \\
& b^3*c^5*e*h*1*z^3 + 648*a^3*b^3*c^5*g*h*j*z^3 - 324*a^2*b^5*c^4*eg*m*z^3 - \\
& 324*a^2*b^5*c^4*d*h*m*z^3 + 162*a^2*b^5*c^4*f*h*k*z^3 + 162*a^2*b^5*c^4*f* \\
& g*1*z^3 + 162*a^2*b^5*c^4*e*h*1*z^3 - 81*a^2*b^5*c^4*g*h*j*z^3 + 5184*a^3*b^ \\
& ^2*c^6*d*e*m*z^3 - 2592*a^3*b^2*c^6*eg*j*z^3 - 2592*a^3*b^2*c^6*d*h*j*z^3 \\
& - 2106*a^2*b^4*c^5*d*e*m*z^3 + 1296*a^3*b^2*c^6*ef*k*z^3 + 1296*a^3*b^2*c^6 \\
& *d*g*k*z^3 + 1296*a^3*b^2*c^6*d*f*1*z^3 + 324*a^2*b^4*c^5*eg*j*z^3 + 324* \\
& a^2*b^4*c^5*d*h*j*z^3 - 162*a^2*b^4*c^5*ef*k*z^3 - 162*a^2*b^4*c^5*d*g*k*z \\
& ^3 - 162*a^2*b^4*c^5*d*f*1*z^3 + 1296*a^3*b^2*c^6*f*g*h*z^3 - 162*a^2*b^4*c^ \\
& ^5*f*g*h*z^3 + 1944*a^2*b^3*c^6*d*ej*z^3 - 1296*a^2*b^2*c^7*d*ef*z^3 + 81 \\
& *a^2*b^8*c*k*1*m*z^3 + 6480*a^5*b*c^5*j*k*1*z^3 + 2592*a^5*b*c^5*h*k*m*z^3 \\
& + 2592*a^5*b*c^5*g*1*m*z^3 - 1296*a^4*b*c^6*ej*k*z^3 - 1296*a^4*b*c^6*d*j* \\
& 1*z^3 - 5184*a^4*b*c^6*eg*m*z^3 - 5184*a^4*b*c^6*d*h*m*z^3 + 2592*a^4*b*c^6 \\
& *f*h*k*z^3 + 2592*a^4*b*c^6*f*g*1*z^3 + 2592*a^4*b*c^6*e*h*1*z^3 - 1296*a^4 \\
& *b*c^6*g*h*j*z^3 + 243*a*b^6*c^4*d*e*m*z^3 - 3888*a^3*b*c^7*d*ej*z^3 - 24 \\
& 3*a*b^5*c^5*d*ej*z^3 + 162*a*b^4*c^6*d*ef*z^3 - 2592*a^6*c^5*k*1*m*z^3 - \\
& 5184*a^5*c^6*h*j*k*z^3 - 5184*a^5*c^6*g*j*1*z^3 - 5184*a^5*c^6*f*j*m*z^3 +
\end{aligned}$$



$$\begin{aligned}
& 2592a^5c^6fkk^1z^3 + 2592a^5c^6ekm^2z^3 + 2592a^5c^6d^1lm^2z^3 + \\
& 2592a^5c^6ghm^2z^3 + 5184a^4c^7eg^2jz^3 + 5184a^4c^7d^2h^2jz^3 - \\
& 2592a^4c^7efkk^2z^3 - 2592a^4c^7d^2g^2k^2z^3 - 2592a^4c^7d^2f^2l^2z^3 - \\
& 2592a^4c^7d^2em^2z^3 - 2592a^4c^7f^2gh^2z^3 + 2592a^3c^8d^2ef^2z^3 + \\
& 6480a^5b^2c^4jm^2z^3 + 6480a^4b^3c^4j^2m^2z^3 - 5022a^4b^4c^3j^2m^2z^3 - \\
& 1296a^3b^5c^3j^2m^2z^3 + 1134a^3b^6c^2jm^2z^3 + 81a^2b^7c^2j^2m^2z^3 + \\
& 2592a^4b^3c^4h^2l^2z^3 - 1944a^4b^2c^5h^2l^2z^3 - 810a^3b^5c^3h^2l^2z^3 + \\
& 729a^3b^4c^4h^2l^2z^3 + 81a^2b^7c^2h^2l^2z^3 - 81a^2b^6c^3h^2l^2z^3 - \\
& 5184a^4b^3c^4f^2m^2z^3 + 1620a^3b^5c^3f^2m^2z^3 + 1296a^3b^3c^5f^2m^2z^3 - \\
& 162a^2b^7c^2f^2m^2z^3 - 162a^2b^5c^4f^2m^2z^3 - 1944a^4b^2c^5g^2k^2z^3 + \\
& 729a^3b^4c^4g^2k^2z^3 - 648a^3b^3c^5g^2k^2z^3 - 81a^2b^6c^3g^2k^2z^3 + \\
& 81a^2b^5c^4g^2k^2z^3 - 1944a^4b^2c^5e^2l^2z^3 + 729a^3b^4c^4e^2l^2z^3 + \\
& 648a^3b^2c^6e^2l^2z^3 - 81a^2b^6c^3e^2l^2z^3 - 81a^2b^4c^5e^2l^2z^3 + \\
& 1296a^3b^3c^5f^2j^2z^3 - 1296a^3b^2c^6f^2j^2z^3 - 162a^2b^5c^4f^2j^2z^3 + \\
& 162a^2b^4c^5f^2j^2z^3 - 648a^3b^3c^5d^2k^2z^3 + 81a^2b^5c^4d^2k^2z^3 + \\
& 648a^3b^2c^6e^2h^2z^3 - 81a^2b^4c^5e^2h^2z^3 - 648a^2b^2c^7d^2g^2z^3 - \\
& 10368a^5b^2c^5j^2m^2z^3 - 81a^2b^8c^2j^2m^2z^3 - 2592a^5b^2c^5h^2l^2z^3 + \\
& 5184a^5b^2c^5f^2m^2z^3 - 2592a^4b^2c^6f^2m^2z^3 + 1296a^4b^2c^6g^2k^2z^3 - \\
& 2592a^4b^2c^6f^2j^2z^3 + 1296a^4b^2c^6d^2k^2z^3 + 81a^3b^4c^6d^2g^2z^3 + \\
& 2592a^6c^5jm^2z^3 + 1296a^5c^6h^2l^2z^3 + 1296a^5c^6g^2k^2z^3 + 1296a^5c^6e^2l^2z^3 - \\
& 1296a^4c^7e^2l^2z^3 + 2592a^4c^7f^2j^2z^3 - 2592a^6b^2c^4m^3z^3 - \\
& 324a^3b^7c^2m^3z^3 - 27a^2b^8c^1m^3z^3 - 1296a^4c^7e^2h^2z^3 - \\
& 864a^5b^2c^5k^3z^3 + 1296a^3c^8d^2g^2z^3 + 432a^4b^2c^6h^3z^3 + 27a^2b^4c^6e^3z^3 - \\
& 432a^2b^3c^8d^3z^3 + 216a^2b^3c^7d^3z^3 + 1134a^4b^5c^2m^3z^3 - 432a^5b^3c^3m^3z^3 + \\
& 1512a^5b^2c^4l^3z^3 - 1107a^4b^4c^3l^3z^3 + 297a^3b^6c^2l^3z^3 + 864a^4b^3c^4k^3z^3 - \\
& 270a^3b^5c^3k^3z^3 + 27a^2b^7c^2k^3z^3 - 2592a^4b^2c^5j^3z^3 + 486a^3b^4c^4j^3z^3 - \\
& 27a^2b^6c^3j^3z^3 - 216a^3b^3c^5h^3z^3 + 27a^2b^5c^4h^3z^3 + 216a^3b^2c^6g^3z^3 - \\
& 27a^2b^4c^5g^3z^3 - 216a^2b^2c^7e^3z^3 - 432a^6c^5l^3z^3 + 27a^2b^9m^3z^3 + \\
& 4320a^5c^6j^3z^3 - 432a^4c^7g^3z^3 + 432a^3c^8e^3z^3 - 27b^5c^6d^3z^3 + \\
& 81a^3b^6c^2jkk^1m^2z^2 - 1296a^5b^2c^4h^2jkk^1m^2z^2 - 1296a^5b^2c^4g^2j^1m^2z^2 + \\
& 1296a^5b^2c^4f^2kk^1m^2z^2 - 81a^2b^7c^2fkk^1m^2z^2 + 2592a^4b^2c^5eg^2jm^2z^2 + \\
& 2592a^4b^2c^5d^2h^2jm^2z^2 - 1296a^4b^2c^5f^2h^2jkk^1m^2z^2 - 1296a^4b^2c^5f^2g^2j^1m^2z^2 - \\
& 1296a^4b^2c^5ef^2kk^1m^2z^2 - 1296a^4b^2c^5d^2f^2l^2m^2z^2 - 648a^4b^2c^5e^2h^2j^1m^2z^2 - \\
& 648a^4b^2c^5eg^2k^1m^2z^2 - 648a^4b^2c^5d^2g^2k^1m^2z^2 - 1296a^4b^2c^5f^2g^2h^1m^2z^2 - \\
& 162a^2b^6c^3d^2ej^2m^2z^2 + 81a^2b^6c^3d^2ek^1m^2z^2 + 1296a^3b^2c^6d^2ef^2m^2z^2 - \\
& 648a^3b^2c^6d^2f^2g^2k^2z^2 - 648a^3b^2c^6d^2e^2h^2k^2z^2 - 648a^3b^2c^6d^2e^2g^2l^2z^2 - \\
& 81a^2b^5c^4d^2e^2h^2k^2z^2 - 81a^2b^5c^4d^2e^2f^2j^2z^2 + 81a^2b^4c^5d^2e^2f^2j^2z^2 + \\
& 81a^2b^4c^5d^2e^2g^2h^2z^2 + 648a^5b^2c^3j^2kk^1m^2z^2 - 567a^4b^4c^2j^2kk^1m^2z^2 - \\
& 1944a^4b^3c^3f^2kk^1m^2z^2 + 729a^3b^5c^2f^2kk^1m^2z^2 + 648a^4b^3c^3h^2j^2kk^1m^2z^2 + \\
& 648a^4b^3c^3g^2j^1m^2z^2 - 81a^3b^5c^2h^2j^2kk^1m^2z^2 - 81a^3b^5c^2g^2j^1m^2z^2 + \\
& 1944a^4b^2c^4f^2j^2kk^1m^2z^2 - 729a^3b^4c^3f^2j^2kk^1m^2z^2 + 648a^4b^2c^4e^2j^2kk^1m^2z^2 + \\
& 648a^4b^2c^4d^2j^1m^2z^2 - 81a^3b^4c^3e^2j^2kk^1m^2z^2 - 81a^3b^4c^3d^2j^1m^2z^2 + 81a^2b^6c^2f^2j^2kk^1m^2z^2 + \\
& 1296a^4b^2c^4f^2h^2k^1m^2z^2 + 1296a^4b^2c^4f^2g^2l^1m^2z^2 + 648a^4b^2c^4g^2h^2j^1m^2z^2 - \\
& 648a^3b^4c^3f^2h^2k^1m^2z^2 - 648a^3b^4c^3f^2g^2l^1m^2z^2 - 324a^4b^2c^4g^2h^2k^1m^2z^2 - \\
& 324a^4b^2c^4e^2h^1m^2z^2 + 81a^3b^4c^3g^2h^2k^1m^2z^2 - 81a^3b^4c^3g^2h^2j^1m^2z^2 + 81a^2b^6c^2f^2h^2k^1m^2z^2 + \\
& 81a^2b^6c^2f^2g^2l^1m^2z^2 - 1296a^3b^3c^4e^2g^2jm^2z^2 - 1296a^3b^3c^4d^2h^2jm^2z^2 + \\
& 648a^3b^3c^4f^2h^2j^2k^2z^2 + 648a^3b^3c^4f^2g^2j^1m^2z^2 + 648a^3b^3c^4d^2f^2l^1m^2z^2 + \\
& 486a^3b^3c^4e^2g^2k^1m^2z^2 + 486a^3b^3c^4d^2h^2k^1m^2z^2 + 162a^3b^3c^4e^2h^2j^1m^2z^2 + \\
& 162a^3b^3c^4d^2g^2k^1m^2z^2 + 162a^2b^5c^3e^2g^2jm^2z^2 + 162a^2b^5c^3d^2h^2jm^2z^2 - \\
& 81a^2b^5c^3f^2h^2j^2k^2z^2 - 81a^2b^5c^3f^2g^2l^1m^2z^2 - 81a^2b^5c^3f^2h^2j^2k^2z^2 - 81a^2b^5c^3f^2g^2l^1m^2z^2 -
\end{aligned}$$

$$\begin{aligned}
& 5*c^3*f*g*j*1*z^2 - 81*a^2*b^5*c^3*e*g*k*1*z^2 - 81*a^2*b^5*c^3*e*f*k*m*z^2 \\
& - 81*a^2*b^5*c^3*d*h*k*1*z^2 - 81*a^2*b^5*c^3*d*f*1*m*z^2 + 648*a^3*b^3*c^4 \\
& *f*g*h*m*z^2 - 81*a^2*b^5*c^3*f*g*h*m*z^2 - 3240*a^3*b^2*c^5*d*e*j*m*z^2 + \\
& 1620*a^3*b^2*c^5*d*e*k*1*z^2 + 1377*a^2*b^4*c^4*d*e*j*m*z^2 - 648*a^3*b^2*c^5 \\
& *e*f*j*k*z^2 - 648*a^3*b^2*c^5*d*f*j*1*z^2 - 648*a^2*b^4*c^4*d*e*k*1*z^2 \\
& - 324*a^3*b^2*c^5*d*g*j*k*z^2 + 81*a^2*b^4*c^4*e*f*j*k*z^2 + 81*a^2*b^4*c^4 \\
& *d*f*j*1*z^2 + 972*a^3*b^2*c^5*e*f*h*1*z^2 - 648*a^3*b^2*c^5*f*g*h*j*z^2 - \\
& 324*a^3*b^2*c^5*e*g*h*k*z^2 - 324*a^3*b^2*c^5*d*g*h*1*z^2 - 162*a^2*b^4*c^4 \\
& *e*f*h*1*z^2 + 81*a^2*b^4*c^4*f*g*h*j*z^2 + 81*a^2*b^4*c^4*e*g*h*k*z^2 + 8 \\
& 1*a^2*b^4*c^4*d*g*h*1*z^2 - 648*a^2*b^3*c^5*d*e*f*m*z^2 + 486*a^2*b^3*c^5*d \\
& *e*h*k*z^2 + 486*a^2*b^3*c^5*d*e*g*1*z^2 + 162*a^2*b^3*c^5*d*f*g*k*z^2 + 64 \\
& 8*a^2*b^2*c^6*d*e*f*j*z^2 - 324*a^2*b^2*c^6*d*e*g*h*z^2 - 1296*a^6*b*c^3*k* \\
& 1*m^2*z^2 - 81*a^4*b^5*c*k*1*m^2*z^2 - 1296*a^5*b*c^4*j^2*k*1*z^2 - 324*a^5 \\
& *b*c^4*h^2*1*m*z^2 + 324*a^5*b*c^4*h*k^2*1*z^2 - 324*a^5*b*c^4*g*k^2*m*z^2 \\
& + 972*a^5*b*c^4*h*j*1^2*z^2 + 324*a^5*b*c^4*g*k*1^2*z^2 - 324*a^5*b*c^4*e*1 \\
& ^2*m*z^2 - 324*a^4*b*c^5*e^2*1*m*z^2 - 1944*a^5*b*c^4*f*j*m^2*z^2 + 1296*a^5 \\
& *b*c^4*e*k*m^2*z^2 + 1296*a^5*b*c^4*d*1*m^2*z^2 + 648*a^4*b*c^5*f^2*j*m*z^2 \\
& + 81*a^2*b^7*c*f*j*m^2*z^2 + 1296*a^5*b*c^4*g*h*m^2*z^2 - 324*a^4*b*c^5*g \\
& ^2*j*k*z^2 + 324*a^4*b*c^5*g^2*h*1*z^2 + 972*a^4*b*c^5*f*h^2*1*z^2 + 324*a^4 \\
& *b*c^5*g*h^2*k*z^2 - 324*a^4*b*c^5*e*h^2*m*z^2 - 324*a^4*b*c^5*d*j*k^2*z^2 \\
& - 324*a^3*b*c^6*d^2*j*k*z^2 + 972*a^4*b*c^5*f*g*k^2*z^2 + 972*a^3*b*c^6*d^2 \\
& *g*m*z^2 + 324*a^4*b*c^5*e*h*k^2*z^2 + 324*a^3*b*c^6*d^2*h*1*z^2 + 81*a*b^5 \\
& *c^4*d^2*g*m*z^2 + 972*a^4*b*c^5*e*f*1^2*z^2 + 324*a^4*b*c^5*d*g*1^2*z^2 - \\
& 324*a^3*b*c^6*e^2*h*j*z^2 + 324*a^3*b*c^6*e^2*g*k*z^2 - 324*a^3*b*c^6*e^2*f \\
& *1*z^2 - 1296*a^4*b*c^5*d*e*m^2*z^2 + 81*a*b^7*c^2*d*e*m^2*z^2 - 324*a^3*b \\
& *c^6*d*g^2*j*z^2 - 81*a*b^4*c^5*d^2*g*j*z^2 + 81*a*b^4*c^5*d^2*e*1*z^2 + 32 \\
& 4*a^3*b*c^6*e*g^2*h*z^2 + 81*a*b^4*c^5*d*e^2*k*z^2 + 1296*a^3*b*c^6*d*e*j^2 \\
& *z^2 - 324*a^3*b*c^6*e*f*h^2*z^2 + 324*a^3*b*c^6*d*g*h^2*z^2 + 81*a*b^5*c^4 \\
& *d*e*j^2*z^2 - 324*a^2*b*c^7*d^2*f*g*z^2 + 324*a^2*b*c^7*d^2*e*h*z^2 + 81*a \\
& *b^3*c^6*d^2*f*g*z^2 - 81*a*b^3*c^6*d^2*e*h*z^2 + 324*a^2*b*c^7*d*e^2*g*z^2 \\
& - 81*a*b^3*c^6*d*e^2*g*z^2 + 1296*a^6*c^4*j*k*1*m*z^2 - 1296*a^5*c^5*f*j*k \\
& *1*z^2 - 1296*a^5*c^5*e*j*k*m*z^2 - 1296*a^5*c^5*d*j*1*m*z^2 - 1296*a^5*c^5 \\
& *g*h*j*m*z^2 + 1296*a^5*c^5*e*h*1*m*z^2 + 1296*a^4*c^6*e*f*j*k*z^2 + 1296*a \\
& ^4*c^6*d*g*j*k*z^2 + 1296*a^4*c^6*d*f*j*1*z^2 - 1296*a^4*c^6*d*e*k*1*z^2 + \\
& 1296*a^4*c^6*d*e*j*m*z^2 + 1296*a^4*c^6*f*g*h*j*z^2 - 1296*a^4*c^6*e*f*h*1* \\
& z^2 - 1296*a^3*c^7*d*e*f*j*z^2 + 648*a^5*b^3*c^2*k*1*m^2*z^2 + 648*a^4*b^3*c^3 \\
& *j^2*k*1*z^2 + 486*a^5*b^2*c^3*h*1^2*m*z^2 - 81*a^4*b^4*c^2*h*1^2*m*z^2 \\
& + 81*a^4*b^3*c^3*h^2*1*m*z^2 - 81*a^3*b^5*c^2*j^2*k*1*z^2 - 162*a^4*b^2*c^4 \\
& *g^2*k*m*z^2 - 81*a^4*b^3*c^3*h*k^2*1*z^2 + 81*a^4*b^3*c^3*g*k^2*m*z^2 - 56 \\
& 7*a^4*b^3*c^3*h*j*1^2*z^2 + 486*a^4*b^2*c^4*h^2*j*1*z^2 - 81*a^4*b^3*c^3*g* \\
& k*1^2*z^2 + 81*a^4*b^3*c^3*e*1^2*m*z^2 + 81*a^3*b^5*c^2*h*j*1^2*z^2 - 81*a^ \\
& 3*b^4*c^3*h^2*j*1*z^2 + 81*a^3*b^3*c^4*e^2*1*m*z^2 + 2430*a^4*b^3*c^3*f*j*m \\
& ^2*z^2 - 2268*a^4*b^2*c^4*f*j^2*m*z^2 - 810*a^3*b^5*c^2*f*j*m^2*z^2 + 810*a \\
& ^3*b^4*c^3*f*j^2*m*z^2 - 648*a^4*b^3*c^3*e*k*m^2*z^2 - 648*a^4*b^3*c^3*d*1* \\
& m^2*z^2 - 648*a^4*b^2*c^4*h*j^2*k*z^2 - 648*a^4*b^2*c^4*g*j^2*1*z^2 - 162*a \\
& ^3*b^3*c^4*f^2*j*m*z^2 + 81*a^3*b^5*c^2*e*k*m^2*z^2 + 81*a^3*b^5*c^2*d*1*m^ \\
& 2*z^2 + 81*a^3*b^4*c^3*h*j^2*k*z^2 + 81*a^3*b^4*c^3*g*j^2*1*z^2 - 81*a^2*b^6 \\
& *c^2*f*j^2*m*z^2 - 648*a^4*b^3*c^3*g*h*m^2*z^2 + 486*a^4*b^2*c^4*g*j*k^2*z \\
& ^2 - 486*a^4*b^2*c^4*e*k^2*1*z^2 + 486*a^3*b^2*c^5*d^2*k*m*z^2 - 162*a^4*b^ \\
& 2*c^4*d*k^2*m*z^2 + 81*a^3*b^5*c^2*g*h*m^2*z^2 - 81*a^3*b^4*c^3*g*j*k^2*z^2 \\
& + 81*a^3*b^4*c^3*e*k^2*1*z^2 + 81*a^3*b^3*c^4*g^2*j*k*z^2 - 81*a^2*b^4*c^4 \\
& *d^2*k*m*z^2 + 486*a^4*b^2*c^4*e*j*1^2*z^2 - 486*a^4*b^2*c^4*d*k*1^2*z^2 - \\
& 162*a^3*b^2*c^5*e^2*j*1*z^2 - 81*a^3*b^4*c^3*e*j*1^2*z^2 + 81*a^3*b^4*c^3*d \\
& *k*1^2*z^2 - 81*a^3*b^3*c^4*g^2*h*1*z^2 - 1458*a^4*b^2*c^4*f*h*1^2*z^2 + 64 \\
& 8*a^3*b^4*c^3*f*h*1^2*z^2 - 567*a^3*b^3*c^4*f*h^2*1*z^2 + 486*a^3*b^2*c^5*e \\
& ^2*h*m*z^2 - 81*a^3*b^3*c^4*g*h^2*k*z^2 + 81*a^3*b^3*c^4*e*h^2*m*z^2 - 81*a \\
& ^2*b^6*c^2*f*h*1^2*z^2 + 81*a^2*b^5*c^3*f*h^2*1*z^2 - 81*a^2*b^4*c^4*e^2*h* \\
& m*z^2 - 1296*a^4*b^2*c^4*e*g*m^2*z^2 - 1296*a^4*b^2*c^4*d*h*m^2*z^2 + 648*a \\
& ^3*b^4*c^3*e*g*m^2*z^2 + 648*a^3*b^4*c^3*d*h*m^2*z^2 + 81*a^3*b^3*c^4*d*j*k
\end{aligned}$$

$$\begin{aligned}
&^2z^2 - 81a^2b^6c^2e*gm^2z^2 - 81a^2b^6c^2d*hm^2z^2 + 81a^2b^3c^5d^2j*kkz^2 - 567a^3b^3c^4f*g*k^2z^2 - 567a^2b^3c^5d^2g*mmz^2 + 486a^3b^2c^5f*g^2k*zz^2 - 486a^3b^2c^5e*g^2l*zz^2 + 486a^3b^2c^5d*g^2m*zz^2 - 81a^3b^3c^4e*hk^2z^2 + 81a^2b^5c^3f*g*k^2z^2 - 81a^2b^4c^4f*g^2k*zz^2 + 81a^2b^4c^4e*g^2l*zz^2 - 81a^2b^4c^4d*g^2m*zz^2 - 81a^2b^3c^5d^2h*l*zz^2 - 567a^3b^3c^4e*f*l^2z^2 - 486a^3b^2c^5d*h^2k*zz^2 - 162a^3b^2c^5e*h^2j*zz^2 - 81a^3b^3c^4d*g*l^2z^2 + 81a^2b^5c^3e*f*l^2z^2 + 81a^2b^4c^4d*h^2k*zz^2 + 81a^2b^3c^5e^2h*j*zz^2 - 81a^2b^3c^5e^2g*k*zz^2 + 81a^2b^3c^5e^2f*l*zz^2 + 1944a^3b^3c^4d*e*m^2z^2 - 729a^2b^5c^3d*e*m^2z^2 + 648a^3b^2c^5e*g*j^2z^2 + 648a^3b^2c^5d*h*j^2z^2 - 81a^2b^4c^4e*g*j^2z^2 - 81a^2b^4c^4d*h*j^2z^2 + 486a^3b^2c^5d*f*k^2z^2 + 486a^2b^2c^6d^2g*j*zz^2 - 486a^2b^2c^6d^2e*l*zz^2 - 162a^2b^2c^6d^2f*k*zz^2 - 81a^2b^4c^4d*f*k^2z^2 + 81a^2b^3c^5d*g^2j*zz^2 - 486a^2b^2c^6d*e^2k*zz^2 - 81a^2b^3c^5e*g^2h*zz^2 - 648a^2b^3c^5d*e*j^2z^2 - 162a^2b^2c^6e^2f*h*zz^2 + 81a^2b^3c^5e*f*h^2z^2 - 81a^2b^3c^5d*g*h^2z^2 - 162a^2b^2c^6d*f*g^2z^2 - 189a^5b^3c^2l^3m*zz^2 + 162a^5b^2c^3k^3m*zz^2 - 27a^4b^4c^2k^3m*zz^2 - 702a^4b^3c^3j^3m*zz^2 - 81a^3b^6c*j^2m^2z^2 + 81a^3b^5c^2j^3m*zz^2 - 54a^5b^3c^2j*m^3z^2 - 486a^5b^2c^3j*l^3z^2 + 216a^4b^4c^2j*l^3z^2 - 189a^4b^3c^3j*k^3z^2 - 54a^4b^2c^4h^3m*zz^2 + 27a^3b^5c^2j*k^3z^2 + 27a^3b^3c^4g^3m*zz^2 - 810a^4b^4c^2f*m^3z^2 + 540a^5b^2c^3f*m^3z^2 - 324a^3b^2c^5f^3m*zz^2 + 54a^2b^4c^4f^3m*zz^2 + 675a^4b^3c^3f*l^3z^2 - 243a^3b^5c^2f*l^3z^2 - 189a^2b^3c^5e^3m*zz^2 + 27a^3b^3c^4h^3j*zz^2 - 486a^4b^2c^4f*k^3z^2 - 486a^2b^2c^6d^3m*zz^2 + 216a^3b^4c^3f*k^3z^2 - 54a^3b^2c^5g^3j*zz^2 - 27a^2b^6c^2f*k^3z^2 - 270a^3b^3c^4f*j^3z^2 - 54a^2b^3c^5f^3j*zz^2 + 27a^2b^5c^3f*j^3z^2 + 162a^2b^2c^6e^3j*zz^2 + 162a^3b^2c^5f*h^3z^2 - 27a^2b^4c^4f*h^3z^2 + 27a^2b^3c^5f*g^3z^2 + 81a*b^2c^7d^2e^2z^2 - 648a^6c^4h*l^2m*zz^2 + 648a^5c^5g^2k*m*zz^2 - 648a^5c^5h^2j*l*zz^2 + 1296a^5c^5h*j^2k*zz^2 + 1296a^5c^5g*j^2l*zz^2 + 1296a^5c^5f*j^2m*zz^2 - 648a^5c^5g*j*k^2z^2 + 648a^5c^5e*k^2l*zz^2 + 648a^5c^5d*k^2m*zz^2 - 648a^4c^6d^2k*m*zz^2 - 648a^5c^5e*j*l^2z^2 + 648a^5c^5d*k*l^2z^2 + 648a^4c^6e^2j*l*zz^2 + 324a^6b*c^3l^3m*zz^2 + 27a^4b^5c^1^3m*zz^2 + 648a^5c^5f*h*l^2z^2 - 648a^4c^6e^2h*m*zz^2 + 1512a^5b*c^4j^3m*zz^2 + 1080a^6b*c^3j*m^3z^2 - 162a^4b^5c*j*m^3z^2 - 648a^4c^6f*g^2k*zz^2 + 648a^4c^6e*g^2l*zz^2 - 648a^4c^6d*g^2m*zz^2 - 27a^3b^6c*j*l^3z^2 + 648a^4c^6e*h^2j*zz^2 + 648a^4c^6d*h^2k*zz^2 + 324a^5b*c^4j*k^3z^2 - 1296a^4c^6e*g*j^2z^2 - 1296a^4c^6d*h*j^2z^2 - 108a^4b*c^5g^3m*zz^2 - 648a^4c^6d*f*k^2z^2 - 648a^3c^7d^2g*j*zz^2 + 648a^3c^7d^2f*k*zz^2 + 648a^3c^7d^2e*l*zz^2 + 270a^3b^6c*f*m^3z^2 + 648a^3c^7d^2e^2k*zz^2 - 540a^5b*c^4f*l^3z^2 + 324a^3b*c^6e^3m*zz^2 - 108a^4b*c^5h^3j*zz^2 + 27a^2b^7c*f*l^3z^2 + 27a*b^5c^4e^3m*zz^2 + 648a^3c^7e^2f*h*zz^2 + 216a*b^4c^5d^3m*zz^2 + 648a^4b*c^5f*j^3z^2 + 216a^3b*c^6f^3j*zz^2 + 648a^3c^7d*f*g^2z^2 - 27a*b^4c^5e^3j*zz^2 + 324a^2b*c^7d^3j*zz^2 - 189a*b^3c^6d^3j*zz^2 - 108a^3b*c^6f*g^3z^2 - 108a^2b*c^7e^3f*zz^2 + 27a*b^3c^6e^3f*zz^2 + 162a*b^2c^7d^3f*zz^2 - 1134a^5b^2c^3j^2m^2z^2 + 648a^4b^4c^2j^2m^2z^2 + 81a^5b^2c^3k^2l^2z^2 + 162a^4b^2c^4f^2m^2z^2 + 81a^4b^2c^4h^2k^2z^2 + 81a^4b^2c^4g^2l^2z^2 + 162a^3b^2c^5f^2j^2z^2 + 81a^3b^2c^5e^2k^2z^2 + 81a^3b^2c^5d^2l^2z^2 + 81a^3b^2c^5g^2h^2z^2 + 81a^2b^2c^6e^2g^2z^2 + 81a^2b^2c^6d^2h^2z^2 - 216a^6c^4k^3m*zz^2 + 216a^6c^4j*l^3z^2 + 27a^3b^7j*m^3z^2 + 216a^5c^5h^3m*zz^2 + 432a^6c^4f*m^3z^2 + 432a^4c^6f^3m*zz^2 - 27b^6c^4d^3m*zz^2 - 27a^2b^8f*m^3z^2 + 216a^5c^5f*k^3z^2 + 216a^4c^6g^3j*zz^2 + 216a^3c^7d^3m*zz^2 + 216a^5b^4c*m^4z^2 - 216a^3c^7e^3j*zz^2 + 27b^5c^5d^3j*zz^2 - 216a^4c^6f*h^3z^2 - 27b^4c^6d^3f*zz^2 - 216a^2c^8d^3f*zz^2 - 648a^6c^4j^2m^2z^2 - 324a^6c^4k^2l^2z^2 - 648a^5c^5f^2m^2z^2 - 324a^5c^5h^2k^2z^2 - 32
\end{aligned}$$

$$\begin{aligned}
& 4a^5c^5g^2l^2z^2 - 648a^4c^6f^2j^2z^2 - 324a^4c^6e^2k^2z^2 - \\
& 324a^4c^6d^2l^2z^2 - 405a^6b^2c^2m^4z^2 - 324a^4c^6g^2h^2z^2 \\
& 2 - 324a^3c^7e^2g^2z^2 - 324a^3c^7d^2h^2z^2 + 243a^4b^2c^4j^4 \\
& z^2 - 27a^3b^4c^3j^4z^2 - 324a^2c^8d^2e^2z^2 + 27a^2b^2c^6f^4 \\
& z^2 - 108a^7c^3m^4z^2 - 27a^4b^6m^4z^2 - 540a^5c^5j^4z^2 - 10 \\
& 8a^3c^7f^4z^2 - 216a^5b^3c^3f^2j^2k^2l^2m^2z - 54a^3b^5c^3f^2j^2k^2l^2m^2z + \\
& 27a^3b^5c^3g^2h^2k^2l^2m^2z - 27a^2b^6c^3e^2g^2k^2l^2m^2z - 27a^2b^6c^3d^2h^2k^2l^2 \\
& m^2z + 432a^4b^3c^4d^2g^2j^2k^2m^2z - 432a^4b^3c^4d^2e^2k^2l^2m^2z + 216a^4b^3c^4 \\
& e^2g^2j^2k^2l^2z + 216a^4b^3c^4e^2f^2j^2k^2m^2z + 216a^4b^3c^4d^2h^2j^2k^2l^2z + 216a^4 \\
& b^3c^4d^2f^2j^2l^2m^2z + 216a^4b^3c^4f^2g^2h^2j^2m^2z - 27a^2b^6c^2d^2e^2j^2k^2l^2 \\
& z - 27a^2b^6c^2d^2e^2h^2k^2m^2z - 27a^2b^6c^2d^2e^2g^2l^2m^2z + 216a^3b^3c^5d^2e^2 \\
& h^2j^2k^2z + 216a^3b^3c^5d^2e^2g^2j^2l^2z - 216a^3b^3c^5d^2e^2f^2j^2m^2z + 27a^2b^5 \\
& c^3d^2e^2h^2j^2k^2z + 27a^2b^5c^3d^2e^2g^2j^2l^2z + 27a^2b^5c^3d^2e^2g^2h^2m^2z - 27 \\
& a^2b^4c^4d^2e^2g^2h^2j^2z + 27a^2b^7c^2d^2e^2k^2l^2m^2z + 270a^4b^3c^2f^2j^2k^2l^2m^2 \\
& z - 108a^4b^3c^2g^2h^2k^2l^2m^2z - 216a^4b^2c^3f^2h^2j^2k^2m^2z - 216a^4b^2 \\
& c^3f^2g^2j^2l^2m^2z - 216a^4b^2c^3e^2g^2k^2l^2m^2z - 216a^4b^2c^3d^2h^2k^2l^2m^2 \\
& z + 162a^3b^4c^2e^2g^2k^2l^2m^2z + 162a^3b^4c^2d^2h^2k^2l^2m^2z + 108a^4b^2 \\
& c^3g^2h^2j^2k^2l^2z + 108a^4b^2c^3e^2h^2j^2l^2m^2z + 54a^3b^4c^2f^2h^2j^2k^2m^2 \\
& z + 54a^3b^4c^2f^2g^2j^2l^2m^2z - 27a^3b^4c^2g^2h^2j^2k^2l^2z + 540a^3b^3c^3 \\
& d^2e^2k^2l^2m^2z - 216a^2b^5c^2d^2e^2k^2l^2m^2z - 162a^3b^3c^3e^2g^2j^2k^2l^2z \\
& - 162a^3b^3c^3d^2h^2j^2k^2l^2z - 108a^3b^3c^3d^2g^2j^2k^2m^2z - 54a^3b^3c^3 \\
& e^2f^2j^2k^2m^2z - 54a^3b^3c^3d^2f^2j^2l^2m^2z + 27a^2b^5c^2e^2g^2j^2k^2l^2z + 2 \\
& 7a^2b^5c^2d^2h^2j^2k^2l^2z - 108a^3b^3c^3e^2g^2h^2k^2m^2z - 108a^3b^3c^3d^2 \\
& g^2h^2l^2m^2z - 54a^3b^3c^3f^2g^2h^2j^2m^2z + 27a^2b^5c^2e^2g^2h^2k^2m^2z + 27a^2 \\
& b^5c^2d^2g^2h^2l^2m^2z - 540a^3b^2c^4d^2e^2j^2k^2l^2z + 216a^2b^4c^3d^2e^2 \\
& j^2k^2l^2z - 216a^3b^2c^4d^2e^2h^2k^2m^2z - 216a^3b^2c^4d^2e^2g^2l^2m^2z + 162a^2 \\
& b^4c^3d^2e^2h^2k^2m^2z + 162a^2b^4c^3d^2e^2g^2l^2m^2z + 108a^3b^2c^4e^2g^2 \\
& h^2j^2k^2z - 108a^3b^2c^4e^2f^2h^2j^2l^2z + 108a^3b^2c^4d^2g^2h^2j^2l^2z + 108a^3 \\
& b^2c^4d^2f^2g^2k^2m^2z - 27a^2b^4c^3e^2g^2h^2j^2k^2z - 27a^2b^4c^3d^2g^2h^2 \\
& j^2l^2z - 162a^2b^3c^4d^2e^2h^2j^2k^2z - 162a^2b^3c^4d^2e^2g^2j^2l^2z + 54a^2b^3 \\
& c^4d^2e^2f^2j^2m^2z - 108a^2b^3c^4d^2e^2g^2h^2m^2z + 108a^2b^2c^5d^2e^2g^2h^2 \\
& j^2z + 324a^6b^3c^2j^2k^2l^2m^2z - 81a^5b^3c^2j^2k^2l^2m^2z + 27a^4b^4c^2 \\
& j^2k^2l^2m^2z - 27a^4b^4c^2h^2k^2l^2m^2z - 27a^4b^4c^2g^2k^2l^2m^2z + 216a^5 \\
& b^3c^3h^2j^2k^2m^2z + 216a^5b^3c^3g^2j^2l^2m^2z + 54a^4b^4c^2f^2k^2l^2m^2z + \\
& 27a^4b^4c^2h^2j^2k^2m^2z + 27a^4b^4c^2g^2j^2l^2m^2z + 27a^2b^6c^2f^2k^2l^2 \\
& m^2z + 216a^5b^3c^3e^2k^2l^2m^2z - 108a^5b^3c^3h^2j^2k^2l^2z + 27a^3b^5c^3 \\
& e^2k^2l^2m^2z + 216a^5b^3c^3d^2k^2l^2m^2z + 216a^4b^3c^4e^2j^2l^2m^2z - 108a^5 \\
& b^3c^3g^2j^2k^2l^2z + 27a^3b^5c^3d^2k^2l^2m^2z - 324a^5b^3c^3e^2j^2k^2m^2z \\
& z - 324a^5b^3c^3d^2j^2l^2m^2z - 216a^5b^3c^3f^2h^2l^2m^2z - 108a^4b^3c^4f^2 \\
& j^2k^2l^2z - 27a^3b^5c^3e^2j^2k^2m^2z - 27a^3b^5c^3d^2j^2l^2m^2z - 324a^5b^3 \\
& c^3g^2h^2j^2m^2z + 216a^5b^3c^3f^2h^2k^2m^2z + 216a^5b^3c^3f^2g^2l^2m^2z + \\
& 216a^5b^3c^3e^2h^2l^2m^2z - 216a^4b^3c^4f^2h^2k^2m^2z - 216a^4b^3c^4f^2g^2 \\
& l^2m^2z - 27a^3b^5c^3g^2h^2j^2m^2z + 216a^4b^3c^4e^2g^2l^2m^2z - 108a^4b^3 \\
& c^4g^2h^2j^2l^2z - 216a^4b^3c^4f^2h^2j^2l^2z + 216a^4b^3c^4e^2h^2j^2m^2z + 2 \\
& 16a^4b^3c^4d^2h^2k^2m^2z - 108a^4b^3c^4g^2h^2j^2k^2z - 432a^4b^3c^4e^2g^2j^2 \\
& m^2z - 432a^4b^3c^4d^2h^2j^2m^2z + 216a^4b^3c^4f^2h^2j^2k^2z + 216a^4b^3c^4 \\
& f^2g^2j^2l^2z + 27a^2b^6c^3e^2g^2j^2m^2z + 27a^2b^6c^3d^2h^2j^2m^2z - 432a^3 \\
& b^3c^5d^2g^2j^2m^2z - 216a^4b^3c^4f^2g^2j^2k^2z + 216a^3b^3c^5d^2f^2k^2m^2 \\
& z + 216a^3b^3c^5d^2e^2l^2m^2z - 108a^4b^3c^4e^2h^2j^2k^2z - 108a^4b^3c^4d^2 \\
& g^2k^2l^2z - 108a^3b^3c^5d^2h^2j^2l^2z + 108a^3b^3c^5d^2g^2k^2l^2z - 54a^3 \\
& b^5c^3d^2g^2j^2m^2z + 27a^2b^5c^3d^2g^2k^2l^2z + 27a^2b^5c^3d^2e^2l^2m^2z - \\
& 216a^4b^3c^4e^2f^2j^2l^2z + 216a^3b^3c^5d^2e^2k^2m^2z - 108a^4b^3c^4d^2g^2 \\
& j^2l^2z - 108a^3b^3c^5e^2g^2j^2k^2z + 27a^2b^5c^3d^2e^2k^2m^2z + 324a^4b^3 \\
& c^4d^2e^2j^2m^2z + 216a^3b^3c^5e^2f^2h^2m^2z - 108a^4b^3c^4e^2g^2h^2l^2z + 1 \\
& 08a^3b^3c^5e^2g^2h^2l^2z + 108a^3b^3c^5e^2f^2j^2k^2z + 108a^3b^3c^5d^2f^2j^2 \\
& l^2z + 27a^2b^6c^2d^2e^2j^2m^2z - 216a^3b^3c^5e^2f^2h^2l^2z + 108a^3b^3c^5 \\
& f^2g^2h^2j^2z - 27a^2b^4c^4d^2e^2j^2l^2z + 216a^3b^3c^5d^2f^2g^2m^2z - 108a^3 \\
& b^3c^5e^2g^2h^2j^2z + 54a^2b^4c^4d^2f^2g^2m^2z - 27a^2b^4c^4d^2g^2h^2k^2z - \\
& 27a^2b^4c^4d^2e^2h^2m^2z - 27a^2b^4c^4d^2e^2j^2k^2z - 108a^3b^3c^5d^2g^2
\end{aligned}$$

$$\begin{aligned}
& h^2*j*z + 54*a*b^4*c^4*d*e^2*h*1*z + 27*a*b^6*c^2*d*e*h*1^2*z - 27*a*b^5*c^3*d*e*h^2*1*z - 27*a*b^4*c^4*d*e^2*g*m*z - 27*a*b^4*c^4*d*e*f^2*m*z + 216*a^2*b*c^6*d^2*f*g*j*z - 108*a^3*b*c^5*d*e*g*k^2*z - 108*a^2*b*c^6*d^2*e*h*j*z + 108*a^2*b*c^6*d^2*e*g*k*z - 54*a*b^3*c^5*d^2*f*g*j*z - 27*a*b^5*c^3*d*e*g*k^2*z + 27*a*b^4*c^4*d*e*g^2*k*z + 27*a*b^3*c^5*d^2*e*h*j*z - 27*a*b^3*c^5*d^2*e*g*k*z - 108*a^2*b*c^6*d*e^2*g*j*z + 27*a*b^3*c^5*d*e^2*g*j*z - 108*a^2*b*c^6*d*e*f^2*j*z + 27*a*b^3*c^5*d*e*f^2*j*z - 432*a^5*c^4*e*h*j*1*m*z + 432*a^4*c^5*d*e*j*k*1*z + 432*a^4*c^5*e*f*h*j*1*z - 432*a^4*c^5*d*f*g*k*m*z - 27*a*b^7*c*d*e*j*m^2*z - 54*a^5*b^2*c^2*j^2*k*1*m*z + 108*a^5*b^2*c^2*h*k^2*1*m*z + 108*a^5*b^2*c^2*g*k*1^2*m*z - 54*a^5*b^2*c^2*h*j*1^2*m*z + 378*a^4*b^2*c^3*f^2*k*1*m*z - 270*a^5*b^2*c^2*f*k*1*m^2*z - 189*a^3*b^4*c^2*f^2*k*1*m*z - 108*a^5*b^2*c^2*h*j*k*m^2*z - 108*a^5*b^2*c^2*g*j*1*m^2*z - 54*a^4*b^3*c^2*h*j^2*k*m*z - 54*a^4*b^3*c^2*g*j^2*1*m*z - 162*a^4*b^3*c^2*e*k^2*1*m*z + 54*a^4*b^2*c^3*g^2*j*k*m*z + 27*a^4*b^3*c^2*h*j*k^2*1*z - 162*a^4*b^3*c^2*d*k*1^2*m*z + 108*a^4*b^2*c^3*g^2*h*1*m*z - 54*a^3*b^3*c^3*e^2*j*1*m*z + 27*a^4*b^3*c^2*g*j*k*1^2*z - 27*a^3*b^4*c^2*g^2*h*1*m*z - 270*a^4*b^2*c^3*f*j^2*k*1*z + 189*a^4*b^3*c^2*e*j*k*m^2*z + 189*a^4*b^3*c^2*d*j*1*m^2*z - 162*a^4*b^2*c^3*e*j^2*k*m*z - 162*a^4*b^2*c^3*d*j^2*1*m*z + 135*a^3*b^3*c^3*f^2*j*k*1*z + 108*a^4*b^2*c^3*g*h^2*k*m*z + 54*a^4*b^3*c^2*f*h*1^2*m*z - 54*a^4*b^2*c^3*f*h^2*1*m*z + 54*a^3*b^4*c^2*f*j^2*k*1*z - 27*a^3*b^4*c^2*g*h^2*k*m*z + 27*a^3*b^4*c^2*e*j^2*k*m*z + 27*a^3*b^4*c^2*d*j^2*1*m*z - 27*a^2*b^5*c^2*f^2*j*k*1*z - 270*a^3*b^2*c^4*d^2*j*k*m*z + 189*a^4*b^3*c^2*g*h*j*m^2*z - 162*a^4*b^2*c^3*g*h*j^2*m*z + 162*a^4*b^2*c^3*e*j*k^2*1*z + 162*a^3*b^3*c^3*f^2*h*k*m*z + 162*a^3*b^3*c^3*f^2*g*1*m*z - 54*a^4*b^3*c^2*f*h*k*m^2*z - 54*a^4*b^3*c^2*f*g*1*m^2*z - 54*a^4*b^3*c^2*e*h*1*m^2*z + 54*a^4*b^2*c^3*d*j*k^2*m*z + 54*a^2*b^4*c^3*d^2*j*k*m*z + 27*a^3*b^4*c^2*g*h*j^2*m*z - 27*a^3*b^4*c^2*e*j*k^2*1*z - 27*a^2*b^5*c^2*f^2*h*k*m*z - 27*a^2*b^5*c^2*f^2*g*1*m*z + 162*a^4*b^2*c^3*d*j*k*1^2*z - 162*a^3*b^3*c^3*e*g^2*1*m*z + 108*a^4*b^2*c^3*e*h*k^2*m*z + 108*a^3*b^2*c^4*d^2*h*1*m*z - 54*a^4*b^2*c^3*f*g*k^2*m*z - 27*a^3*b^4*c^2*e*h*k^2*m*z - 27*a^3*b^4*c^2*d*j*k*1^2*z + 27*a^3*b^3*c^3*g^2*h*j*1*z + 27*a^2*b^5*c^2*e*g^2*1*m*z - 27*a^2*b^4*c^3*d^2*h*1*m*z + 270*a^4*b^2*c^3*f*h*j*1^2*z - 270*a^3*b^2*c^4*e^2*h*j*m*z - 162*a^4*b^2*c^3*e*h*k*1^2*z - 162*a^3*b^3*c^3*d*h^2*k*m*z + 162*a^3*b^2*c^4*e^2*h*k*1*z + 108*a^4*b^2*c^3*d*g*1^2*m*z + 108*a^3*b^2*c^4*e^2*g*k*m*z - 54*a^4*b^2*c^3*e*f*1^2*m*z - 54*a^3*b^4*c^2*f*h*j*1^2*z + 54*a^3*b^3*c^3*f*h^2*j*1*z - 54*a^3*b^3*c^3*e*h^2*j*m*z + 54*a^3*b^2*c^4*e^2*f*1*m*z + 54*a^2*b^4*c^3*e^2*h*j*m*z + 27*a^3*b^4*c^2*e*h*k*1^2*z - 27*a^3*b^4*c^2*d*g*1^2*m*z + 27*a^3*b^3*c^3*g*h^2*j*k*z + 27*a^2*b^5*c^2*d*h^2*k*m*z - 27*a^2*b^4*c^3*e^2*h*k*1*z - 27*a^2*b^4*c^3*e^2*g*k*m*z + 432*a^4*b^2*c^3*e*g*j*m^2*z + 432*a^4*b^2*c^3*d*h*j*m^2*z - 270*a^4*b^2*c^3*d*g*k*m^2*z - 216*a^3*b^4*c^2*e*g*j*m^2*z - 216*a^3*b^4*c^2*d*h*j*m^2*z + 216*a^3*b^3*c^3*e*g*j^2*m*z + 216*a^3*b^3*c^3*d*h*j^2*m*z - 162*a^3*b^2*c^4*e*f^2*k*m*z - 162*a^3*b^2*c^4*d*f^2*1*m*z - 108*a^3*b^2*c^4*f^2*h*j*k*z - 108*a^3*b^2*c^4*f^2*g*j*1*z + 54*a^4*b^2*c^3*e*f*k*m^2*z + 54*a^4*b^2*c^3*d*f*1*m^2*z + 54*a^3*b^4*c^2*d*g*k*m^2*z - 54*a^3*b^3*c^3*f*h*j^2*k*z - 54*a^3*b^3*c^3*f*g*j^2*1*z - 27*a^2*b^5*c^2*e*g*j^2*m*z - 27*a^2*b^5*c^2*d*h*j^2*m*z + 27*a^2*b^4*c^3*f^2*h*j*k*z + 27*a^2*b^4*c^3*f^2*g*j*1*z + 27*a^2*b^4*c^3*e*f^2*k*m*z + 27*a^2*b^4*c^3*d*f^2*1*m*z + 324*a^2*b^3*c^4*d^2*g*j*m*z - 270*a^3*b^2*c^4*d*g^2*j*m*z - 162*a^3*b^2*c^4*f^2*g*h*m*z + 162*a^3*b^2*c^4*e*g^2*j*1*z - 162*a^2*b^3*c^4*d^2*e*1*m*z - 135*a^2*b^3*c^4*d^2*g*k*1*z + 108*a^3*b^2*c^4*d*g^2*k*1*z + 54*a^4*b^2*c^3*f*g*h*m^2*z + 54*a^3*b^3*c^3*f*g*j*k^2*z - 54*a^3*b^2*c^4*f*g^2*j*k*z + 54*a^2*b^4*c^3*d*g^2*j*m*z - 54*a^2*b^3*c^4*d^2*f*k*m*z + 27*a^3*b^3*c^3*e*h*j*k^2*z + 27*a^3*b^3*c^3*d*g*k^2*1*z + 27*a^2*b^4*c^3*f^2*g*h*m*z - 27*a^2*b^4*c^3*e*g^2*j*1*z - 27*a^2*b^4*c^3*d*g^2*k*1*z + 27*a^2*b^3*c^4*d^2*h*j*1*z + 162*a^3*b^2*c^4*d*h^2*j*k*z - 162*a^2*b^3*c^4*d*e^2*k*m*z + 108*a^3*b^2*c^4*e*g^2*h*m*z + 54*a^3*b^3*c^3*e*f*j*1^2*z + 27*a^3*b^3*c^3*d*g*j*1^2*z - 27*a^2*b^4*c^3*e*g^2*h*m*z - 27*a^2*b^4*c^3*d*h^2*j*k*z + 27*a^2*b^3*c^4*e^2*g*j*k*z - 621*a^3*b^3*c^3*d*e*j*m^2*z + 594*a^3*b^2*c^4*d*e*j^2*m*z + 243*a^2*b^5*c^2*d*e*j*m^2*z - 243*a^2*b^4*c^3*d*e*j^2*
\end{aligned}$$

$$\begin{aligned}
& m^2z + 135a^3b^3c^3e^2g^2h^2l^2z - 108a^3b^2c^4e^2g^2h^2l^2z + 108a^3b^2c^4d^2g^2h^2m^2z + 54a^3b^2c^4e^2f^2j^2k^2z + 54a^3b^2c^4e^2f^2h^2m^2z \\
& + 54a^3b^2c^4d^2g^2j^2k^2z + 54a^3b^2c^4d^2f^2j^2l^2z - 54a^2b^3c^4e^2f^2h^2m^2z - 27a^2b^5c^2e^2g^2h^2l^2z + 27a^2b^4c^3e^2g^2h^2l^2z - 27a^2b^4c^3d^2g^2h^2m^2z \\
& - 27a^2b^3c^4e^2g^2h^2l^2z - 27a^2b^3c^4e^2f^2j^2k^2z - 27a^2b^3c^4d^2f^2j^2l^2z + 162a^2b^2c^5d^2e^2j^2l^2z + 54a^3b^2c^4f^2g^2h^2j^2z - 54a^3b^2c^4d^2f^2j^2k^2z \\
& + 54a^2b^3c^4e^2f^2h^2l^2z + 54a^2b^2c^5d^2f^2j^2k^2z - 27a^2b^3c^4f^2g^2h^2j^2z - 270a^2b^2c^5d^2f^2g^2m^2z - 162a^3b^2c^4d^2g^2h^2k^2z + 162a^2b^2c^5d^2g^2h^2k^2z \\
& + 162a^2b^2c^5d^2e^2j^2k^2z + 108a^2b^2c^5d^2e^2h^2m^2z - 54a^2b^3c^4d^2f^2g^2m^2z + 27a^2b^4c^3d^2g^2h^2k^2z + 27a^2b^3c^4e^2g^2h^2j^2z + 270a^3b^2c^4d^2e^2h^2l^2z \\
& - 270a^2b^2c^5d^2e^2h^2l^2z - 162a^2b^4c^3d^2e^2h^2l^2z + 108a^2b^3c^4d^2e^2h^2l^2z + 108a^2b^2c^5d^2e^2g^2m^2z + 54a^2b^2c^5e^2f^2h^2j^2z + 27a^2b^3c^4d^2g^2h^2j^2z \\
& + 162a^2b^2c^5d^2e^2f^2m^2z - 54a^3b^2c^4d^2e^2f^2m^2z - 54a^2b^2c^5d^2f^2g^2k^2z + 135a^2b^3c^4d^2e^2g^2k^2z - 108a^2b^2c^5d^2e^2g^2k^2z + 54a^2b^2c^5d^2f^2g^2j^2z \\
& - 54a^2b^2c^5d^2e^2f^2j^2z - 9a^5b^7c^2d^2e^2l^3z - 36a^5b^7c^2d^2e^2l^3z - 108a^6b^7c^2k^2l^2m^2z + 27a^5b^3c^2k^2l^2m^2z - 18a^5b^2c^2j^2k^3m^2z - 27a^4b^3c^2j^2k^3l^2z \\
& - 108a^5b^3c^2h^2k^2m^2z - 108a^5b^3c^2g^2l^2m^2z + 108a^5b^3c^2h^2k^2l^2z + 108a^5b^3c^2g^2k^2m^2z + 90a^5b^2c^2f^2l^3m^2z - 18a^5b^2c^2h^2k^2l^3z + 18a^4b^2c^3h^3k^2l^2z \\
& + 18a^4b^2c^3h^3j^2m^2z - 108a^5b^3c^2h^2j^2l^2z + 18a^4b^3c^2f^2k^3m^2z - 18a^3b^3c^3g^3j^2m^2z - 9a^4b^3c^2g^2k^3l^2z + 9a^3b^3c^3g^3k^2l^2z + 252a^4b^2c^3f^2j^3m^2z \\
& + 216a^5b^3c^3f^2j^2m^2z + 180a^3b^2c^4f^3j^2m^2z - 108a^4b^3c^4e^2k^2m^2z - 108a^4b^3c^4d^2l^2m^2z + 90a^5b^2c^2e^2k^2m^3z + 90a^5b^2c^2d^2l^2m^3z - 90a^3b^2c^4f^3k^2l^2z \\
& + 54a^3b^5c^2f^2j^2m^2z - 54a^3b^4c^2f^2j^3m^2z + 36a^5b^2c^2f^2j^2m^3z + 36a^4b^2c^3h^2j^3k^2z + 36a^4b^2c^3g^2j^3l^2z - 36a^2b^4c^3f^3j^2m^2z - 27a^2b^6c^2f^2j^2m^2z \\
& + 18a^2b^4c^3f^3k^2l^2z - 216a^4b^3c^4d^2k^2m^2z + 108a^5b^3c^3d^2k^2m^2z - 108a^4b^3c^2f^2j^2l^3z - 108a^4b^3c^4g^2h^2m^2z + 108a^2b^3c^4e^3j^2m^2z + 90a^5b^2c^2g^2h^2m^3z \\
& + 54a^4b^3c^2e^2k^2l^3z - 54a^2b^3c^4e^3k^2l^2z + 234a^2b^2c^5d^3j^2m^2z - 144a^2b^2c^5d^3k^2l^2z + 90a^4b^2c^3f^2j^2k^3z - 72a^4b^2c^3d^2k^3l^2z + 27a^4b^3c^2g^2h^2l^3z \\
& - 27a^3b^3c^3g^2h^3l^2z - 18a^3b^4c^2f^2j^2k^3z + 9a^3b^4c^2d^2k^3l^2z + 216a^4b^3c^4f^2h^2l^2z - 216a^4b^3c^4e^2h^2m^2z + 108a^4b^3c^4g^2h^2k^2z - 18a^4b^2c^3g^2h^2k^3z \\
& + 18a^3b^2c^4g^3h^2k^2z + 18a^3b^2c^4f^2g^3m^2z + 9a^3b^4c^2g^2h^2k^3z - 9a^3b^3c^3e^2j^3k^2z - 9a^3b^3c^3d^2j^3l^2z - 144a^4b^3c^2e^2g^2m^3z - 144a^4b^3c^2d^2h^2m^3z - 108a^3b^3c^5e^2g^2m^2z \\
& + 108a^3b^3c^5d^2j^2k^2z - 108a^3b^3c^5d^2h^2m^2z - 18a^2b^3c^4f^3h^2k^2z - 18a^2b^3c^4f^3g^2l^2z - 9a^3b^3c^3g^2h^2j^3z - 216a^4b^3c^4d^2g^2m^2z + 144a^4b^2c^3e^2g^2l^3z - 126a^3b^2c^4d^2h^3l^2z \\
& - 108a^4b^3c^4d^2h^2l^2z - 108a^3b^3c^5f^2g^2k^2z - 108a^3b^3c^5e^2h^2k^2z - 90a^2b^2c^5e^3f^2m^2z + 72a^2b^2c^5e^3g^2l^2z - 63a^3b^4c^2e^2g^2l^3z - 36a^3b^4c^2d^2h^2l^3z \\
& + 27a^2b^4c^3d^2h^3l^2z + 27a^2b^6c^2d^2g^2m^2z - 18a^4b^2c^3d^2h^2l^3z - 18a^3b^2c^4f^2h^3j^2z - 18a^3b^2c^4e^2h^3k^2z + 18a^2b^2c^5e^3h^2k^2z + 108a^3b^3c^5e^2h^2j^2z \\
& + 54a^3b^3c^3d^2h^2k^3z + 27a^3b^3c^3e^2g^2k^3z - 27a^2b^3c^4e^2g^3k^2z + 27a^2b^3c^4d^2g^3l^2z - 27a^2b^4c^4d^2g^2l^2z - 9a^2b^5c^2e^2g^2k^3z - 9a^2b^5c^2d^2h^2k^3z \\
& + 207a^3b^4c^2d^2e^2m^3z - 108a^2b^3c^6d^2e^2m^2z - 90a^4b^2c^3d^2e^2m^3z - 72a^3b^2c^4e^2g^2j^3z - 72a^3b^2c^4d^2h^2j^3z + 27a^2b^3c^5d^2e^2m^2z + 18a^2b^2c^5e^2f^3k^2z \\
& + 18a^2b^2c^5d^2f^3l^2z + 9a^2b^4c^3e^2g^2j^3z + 9a^2b^4c^3d^2h^2j^3z - 216a^3b^3c^5d^2e^2l^2z - 198a^3b^3c^3d^2e^2l^3z + 108a^3b^3c^5d^2g^2j^2z - 108a^3b^3c^5d^2f^2k^2z + 72a^2b^5c^2d^2e^2l^3z \\
& - 27a^2b^5c^3d^2e^2l^2z + 27a^2b^4c^4d^2g^2j^2z + 18a^2b^2c^5f^3g^2h^2z + 144a^3b^2c^4d^2e^2k^3z - 63a^2b^4c^3d^2e^2k^3z + 27a^2b^4c^4d^2e^2k^2z - 9a^2b^3c^4e^2g^2h^3z - 108a^2b^3c^6d^2g^2h^2z \\
& + 81a^2b^3c^4d^2e^2j^3z + 27a^2b^3c^5d^2g^2h^2z - 27a^2b^3c^5d^2g^2h^2z - 27a^2b^3c^5d^2g^2h^2z
\end{aligned}$$

$$\begin{aligned}
& b^2c^6d^2e^2j^2z - 18a^2b^2c^5d^2g^3h^2z + 108a^2b^2c^6d^2e^2h^2z \\
& - 27a^2b^3c^5d^2e^2h^2z + 27a^2b^2c^6d^2f^2g^2z - 18a^2b^2c^5d^2e^2h^3z - 216a^6c^3j^2k^2l^2m^2z + 216a^6c^3h^2j^2l^2m^2z + 216a^6c^3f^2k^2l^2m^2z - 216a^5c^4f^2k^2l^2m^2z - 216a^5c^4g^2j^2k^2m^2z + 216a^5c^4f^2j^2k^2l^2z + 216a^5c^4f^2h^2l^2m^2z + 216a^5c^4e^2j^2k^2m^2z + 216a^5c^4d^2j^2k^2l^2m^2z + 216a^5c^4g^2h^2j^2m^2z - 216a^5c^4e^2j^2k^2l^2z - 216a^5c^4d^2j^2k^2m^2z + 216a^4c^5d^2j^2k^2m^2z - 18a^6b^2c^2k^2l^2m^3z + 216a^5c^4f^2g^2k^2m^2z - 216a^5c^4d^2j^2k^2l^2z - 72a^6b^2c^2j^2l^3m^2z + 18a^5b^3c^2j^2l^3m^2z - 216a^5c^4f^2h^2j^2l^2z + 216a^5c^4e^2h^2k^2l^2z + 216a^5c^4e^2f^2l^2m^2z - 216a^4c^5e^2h^2k^2l^2z + 216a^4c^5e^2h^2j^2m^2z - 216a^4c^5e^2f^2l^2m^2z - 216a^5c^4e^2f^2k^2m^2z + 216a^5c^4d^2g^2k^2m^2z - 216a^5c^4d^2f^2l^2m^2z + 216a^4c^5e^2f^2k^2m^2z + 216a^4c^5d^2f^2l^2m^2z + 108a^5b^2c^3j^2k^2l^2z - 216a^5c^4f^2g^2h^2m^2z + 216a^4c^5f^2g^2h^2m^2z + 216a^4c^5f^2g^2j^2k^2z - 216a^4c^5e^2g^2j^2l^2z + 216a^4c^5d^2g^2j^2m^2z - 72a^6b^2c^2h^2k^2m^3z - 72a^6b^2c^2g^2l^2m^3z + 54a^5b^3c^2h^2k^2m^3z + 54a^5b^3c^2g^2l^2m^3z - 216a^4c^5d^2h^2j^2k^2z - 18a^4b^4c^2f^2l^3m^2z + 9a^4b^4c^2h^2k^2l^3z - 216a^4c^5e^2f^2j^2k^2z - 216a^4c^5e^2f^2h^2m^2z - 216a^4c^5d^2g^2j^2k^2z - 216a^4c^5d^2f^2j^2l^2z - 216a^4c^5d^2e^2j^2m^2z - 72a^5b^2c^3f^2k^3m^2z + 72a^4b^2c^4g^3j^2m^2z + 36a^5b^2c^3g^2k^3l^2z - 36a^4b^2c^4g^3k^2l^2z - 216a^4c^5f^2g^2h^2j^2z + 216a^4c^5d^2f^2j^2k^2z - 216a^3c^6d^2f^2j^2k^2z - 216a^3c^6d^2e^2j^2l^2z + 72a^4b^4c^2f^2j^2m^3z - 63a^4b^4c^2e^2k^2m^3z - 63a^4b^4c^2d^2l^2m^3z + 216a^4c^5d^2g^2h^2k^2z - 216a^3c^6d^2g^2h^2k^2z + 216a^3c^6d^2f^2g^2m^2z - 216a^3c^6d^2e^2j^2k^2z + 144a^5b^2c^3f^2j^2l^3z - 144a^3b^2c^5e^3j^2m^2z - 72a^5b^2c^3e^2k^2l^3z + 72a^3b^2c^5e^3k^2l^2z - 63a^4b^4c^2g^2h^2m^3z + 18a^3b^5c^2f^2j^2l^3z - 18a^2b^5c^3e^3j^2m^2z - 9a^3b^5c^2e^2k^2l^3z + 9a^2b^5c^3e^3k^2l^2z - 216a^4c^5d^2e^2h^2l^2z - 216a^3c^6e^2f^2h^2j^2z + 216a^3c^6d^2e^2h^2l^2z - 126a^2b^4c^4d^3j^2m^2z + 108a^4b^2c^4g^2h^3l^2z + 63a^2b^4c^4d^3k^2l^2z + 36a^5b^2c^3g^2h^2l^3z - 9a^3b^5c^2g^2h^2l^3z + 216a^4c^5d^2e^2f^2m^2z + 216a^3c^6d^2f^2g^2k^2z - 216a^3c^6d^2e^2f^2m^2z + 36a^4b^2c^4e^2j^2k^2z + 36a^4b^2c^4d^2j^2l^2z - 216a^3c^6d^2f^2g^2j^2z + 72a^3b^5c^2e^2g^2m^3z + 72a^3b^5c^2d^2h^2m^3z + 72a^3b^2c^5f^2h^2k^2z + 72a^3b^2c^5f^2g^2l^2z + 36a^4b^2c^4g^2h^2j^2z + 18a^2b^4c^4e^3f^2m^2z + 9a^2b^6c^2e^2g^2l^3z + 9a^2b^6c^2d^2h^2l^3z - 9a^2b^4c^4e^3h^2k^2z - 9a^2b^4c^4e^3g^2l^2z + 216a^3c^6d^2e^2f^2j^2z - 144a^2b^2c^6d^3f^2m^2z + 108a^3b^2c^5e^2g^3k^2z - 108a^3b^2c^5d^2g^3l^2z + 108a^2b^3c^5d^3f^2m^2z - 72a^4b^2c^4d^2h^2k^3z + 72a^2b^2c^6d^3h^2k^2z - 54a^2b^3c^5d^3h^2k^2z + 36a^4b^2c^4e^2g^2k^3z - 36a^2b^2c^6d^3g^2l^2z - 27a^2b^3c^5d^3g^2l^2z - 81a^2b^6c^2d^2e^2m^3z + 216a^4b^2c^4d^2e^2l^3z + 72a^2b^2c^6e^3f^2j^2z + 72a^2b^2c^6d^2e^3l^2z - 18a^2b^3c^5e^3f^2j^2z - 18a^2b^3c^5d^2e^3l^2z - 90a^2b^2c^6d^3f^2j^2z + 72a^2b^2c^6d^3e^2k^2z + 36a^3b^2c^5e^2g^2h^3z - 36a^2b^2c^6e^3g^2h^2z + 9a^2b^6c^2d^2e^2k^3z + 9a^2b^3c^5e^3g^2h^2z - 180a^3b^2c^5d^2e^2j^3z + 18a^2b^2c^6d^3g^2h^2z - 9a^2b^5c^3d^2e^2j^3z + 18a^2b^2c^6d^2e^3h^2z + 9a^2b^4c^4d^2e^2h^3z + 36a^2b^2c^6d^2e^2g^3z - 9a^2b^3c^5d^2e^2g^3z - 18a^2b^2c^6d^2e^2f^3z + 27a^5b^2c^2h^2l^2m^2z - 27a^5b^2c^2j^2k^2l^2z + 27a^4b^3c^2h^2k^2m^2z + 27a^4b^3c^2g^2l^2m^2z - 27a^4b^3c^2h^2k^2l^2z - 27a^4b^3c^2g^2k^2m^2z - 135a^4b^2c^3e^2l^2m^2z + 27a^5b^2c^2e^2l^2m^2z + 27a^4b^3c^2h^2j^2l^2z - 27a^4b^2c^3h^2j^2l^2z + 27a^3b^4c^2e^2l^2m^2z - 270a^4b^3c^2f^2j^2m^2z - 270a^4b^2c^3f^2j^2m^2z + 162a^3b^4c^2f^2j^2m^2z - 108a^3b^3c^3f^2j^2m^2z - 27a^4b^2c^3h^2j^2k^2z - 27a^4b^2c^3g^2j^2l^2z + 27a^3b^3c^3e^2k^2m^2z + 27a^3b^3c^3d^2l^2m^2z + 27a^2b^5c^2f^2j^2m^2z + 162a^3b^3c^3d^2k^2m^2z - 27a^4b^3c^2d^2k^2m^2z - 27a^4b^2c^3g^2j^2k^2z + 27a^3b^3c^3g^2h^2m^2z - 27a^2b^5c^2d^2k^2m^2z + 162a^3b^2c^4d^2k^2l^2z - 108a^4b^2c^3g^2h^2l^2z - 27a^4b^2c^3e^2j^2l^2z + 27a^3b^4c^2g^2h^2l^2z + 27a^3b^2c^4e^2j^2l^2z - 27a^2b^4c^3d^2k^2l^2z - 162a^3b^3c^3f^2h^2l^2z + 162a^3b^3c^3e^2h^2m^2z - 135a^4b^2c^3e^2h^2m^2z + 135a^3b^2c^4f^2h^2l^2z + 27a^3b^4
\end{aligned}$$

$$\begin{aligned}
& *c^2 * e * h^2 * m^2 * z - 27 * a^3 * b^3 * c^3 * g^2 * h * k^2 * z - 27 * a^3 * b^2 * c^4 * e^2 * j * k^2 * z \\
& - 27 * a^3 * b^2 * c^4 * d^2 * j * l^2 * z + 27 * a^2 * b^5 * c^2 * f^2 * h * l^2 * z - 27 * a^2 * b^5 * c^2 * \\
& e^2 * h * m^2 * z - 27 * a^2 * b^4 * c^3 * f^2 * h^2 * l * z - 27 * a^3 * b^2 * c^4 * g^2 * h^2 * j * z + 27 * \\
& a^2 * b^3 * c^4 * e^2 * g^2 * m * z - 27 * a^2 * b^3 * c^4 * d^2 * j^2 * k * z + 27 * a^2 * b^3 * c^4 * d^2 * h \\
& ^2 * m * z + 351 * a^3 * b^2 * c^4 * d^2 * g * m^2 * z - 189 * a^2 * b^4 * c^3 * d^2 * g * m^2 * z + 162 * a^ \\
& 3 * b^3 * c^3 * d * g^2 * m^2 * z - 162 * a^3 * b^2 * c^4 * e^2 * g * l^2 * z + 135 * a^3 * b^3 * c^3 * d * h^2 \\
& * l^2 * z + 135 * a^3 * b^2 * c^4 * f^2 * g * k^2 * z - 27 * a^2 * b^5 * c^2 * d * h^2 * l^2 * z - 27 * a^2 * \\
& b^5 * c^2 * d * g^2 * m^2 * z - 27 * a^2 * b^4 * c^3 * f^2 * g * k^2 * z + 27 * a^2 * b^4 * c^3 * e^2 * g * l^2 \\
& * z + 27 * a^2 * b^3 * c^4 * f^2 * g^2 * k * z + 27 * a^2 * b^3 * c^4 * e^2 * h^2 * k * z + 135 * a^3 * b^2 * \\
& c^4 * e * f^2 * l^2 * z - 108 * a^3 * b^2 * c^4 * e * g^2 * k^2 * z + 108 * a^2 * b^2 * c^5 * d^2 * g^2 * l * z \\
& + 27 * a^3 * b^2 * c^4 * e * h^2 * j^2 * z + 27 * a^2 * b^4 * c^3 * e * g^2 * k^2 * z - 27 * a^2 * b^4 * c^3 \\
& * e * f^2 * l^2 * z - 27 * a^2 * b^3 * c^4 * e^2 * h * j^2 * z - 27 * a^2 * b^2 * c^5 * e^2 * f^2 * l * z - 27 \\
& * a^2 * b^2 * c^5 * e^2 * g^2 * j * z - 27 * a^2 * b^2 * c^5 * d^2 * h^2 * j * z + 162 * a^2 * b^3 * c^4 * d * e \\
& ^2 * l^2 * z - 135 * a^2 * b^2 * c^5 * d^2 * g * j^2 * z - 27 * a^2 * b^3 * c^4 * d * g^2 * j^2 * z + 27 * a^ \\
& 2 * b^3 * c^4 * d * f^2 * k^2 * z - 162 * a^2 * b^2 * c^5 * d^2 * e * k^2 * z - 27 * a^2 * b^2 * c^5 * e * f^2 * \\
& h^2 * z - 72 * a^7 * c^2 * k * l * m^3 * z + 9 * a^5 * b^4 * k * l * m^3 * z + 72 * a^6 * c^3 * j * k^3 * m * z - \\
& 72 * a^6 * c^3 * h * k * l^3 * z - 72 * a^6 * c^3 * f * l^3 * m * z - 72 * a^5 * c^4 * h^3 * k * l * z - 72 * a^ \\
& 5 * c^4 * h^3 * j * m * z - 9 * a^4 * b^5 * h * k * m^3 * z - 9 * a^4 * b^5 * g * l * m^3 * z - 144 * a^6 * c^3 * f \\
& * j * m^3 * z - 144 * a^5 * c^4 * h * j^3 * k * z - 144 * a^5 * c^4 * g * j^3 * l * z - 144 * a^5 * c^4 * f * j^ \\
& 3 * m * z - 144 * a^4 * c^5 * f^3 * j * m * z + 72 * a^6 * c^3 * e * k * m^3 * z + 72 * a^6 * c^3 * d * l * m^3 * z \\
& + 72 * a^4 * c^5 * f^3 * k * l * z + 72 * a^6 * c^3 * g * h * m^3 * z + 18 * b^6 * c^3 * d^3 * j * m * z - 18 * \\
& a^3 * b^6 * f * j * m^3 * z - 9 * b^6 * c^3 * d^3 * k * l * z + 9 * a^3 * b^6 * e * k * m^3 * z + 9 * a^3 * b^6 * d \\
& * l * m^3 * z + 144 * a^5 * c^4 * d * k^3 * l * z + 144 * a^3 * c^6 * d^3 * k * l * z - 72 * a^5 * c^4 * f * j * k \\
& ^3 * z - 72 * a^3 * c^6 * d^3 * j * m * z + 9 * a^3 * b^6 * g * h * m^3 * z - 72 * a^5 * c^4 * g * h * k^3 * z - \\
& 72 * a^4 * c^5 * g^3 * h * k * z - 72 * a^4 * c^5 * f * g^3 * m * z - 108 * a^5 * b * c^3 * j^4 * m * z + 63 * a^ \\
& 6 * b^2 * c * j * m^4 * z + 36 * a^6 * b * c^2 * k * l^4 * z - 9 * a^5 * b^3 * c * k * l^4 * z - 144 * a^5 * c^4 * \\
& e * g * l^3 * z - 144 * a^3 * c^6 * e^3 * g * l * z + 72 * a^5 * c^4 * d * h * l^3 * z + 72 * a^4 * c^5 * f * h^3 \\
& * j * z + 72 * a^4 * c^5 * e * h^3 * k * z + 72 * a^4 * c^5 * d * h^3 * l * z + 72 * a^3 * c^6 * e^3 * h * k * z + \\
& 72 * a^3 * c^6 * e^3 * f * m * z - 18 * b^5 * c^4 * d^3 * f * m * z + 9 * b^5 * c^4 * d^3 * h * k * z + 9 * b^5 * \\
& c^4 * d^3 * g * l * z - 9 * a^2 * b^7 * e * g * m^3 * z - 9 * a^2 * b^7 * d * h * m^3 * z + 144 * a^4 * c^5 * e * g \\
& * j^3 * z + 144 * a^4 * c^5 * d * h * j^3 * z - 72 * a^5 * c^4 * d * e * m^3 * z - 72 * a^3 * c^6 * e * f^3 * k * \\
& z - 72 * a^3 * c^6 * d * f^3 * l * z + 144 * a^6 * b * c^2 * f * m^4 * z - 108 * a^5 * b^3 * c * f * m^4 * z - \\
& 72 * a^3 * c^6 * f^3 * g * h * z + 36 * a^5 * b * c^3 * h * k^4 * z - 36 * a^3 * b * c^5 * f^4 * m * z + 18 * b^4 \\
& * c^5 * d^3 * f * j * z - 9 * b^4 * c^5 * d^3 * e * k * z + 9 * a^4 * b^4 * c * g * l^4 * z - 144 * a^4 * c^5 * d * \\
& e * k^3 * z - 144 * a^2 * c^7 * d^3 * e * k * z + 72 * a^2 * c^7 * d^3 * f * j * z - 9 * b^4 * c^5 * d^3 * g * h * \\
& z + 72 * a^3 * c^6 * d * g^3 * h * z + 72 * a^2 * c^7 * d^3 * g * h * z - 72 * a^5 * b * c^3 * d * l^4 * z - 72 \\
& * a^4 * b * c^4 * f * j^4 * z + 45 * a * b^2 * c^6 * d^4 * l * z - 36 * a^2 * b * c^6 * e^4 * k * z - 9 * a^3 * b^ \\
& 5 * c * d * l^4 * z + 9 * a * b^3 * c^5 * e^4 * k * z - 72 * a^3 * c^6 * d * e * h^3 * z - 72 * a^2 * c^7 * d * e^3 \\
& * h * z + 9 * b^3 * c^6 * d^3 * e * g * z + 72 * a^2 * c^7 * d * e * f^3 * z + 36 * a^3 * b * c^5 * d * h^4 * z - \\
& 9 * a * b^2 * c^6 * e^4 * g * z + 36 * a * b * c^7 * d^3 * f^2 * z + 90 * a^5 * b^2 * c^2 * j^3 * m^2 * z + 45 * \\
& a^5 * b^2 * c^2 * j^2 * l^3 * z + 9 * a^4 * b^3 * c^2 * j^2 * k^3 * z - 9 * a^4 * b^3 * c^2 * h^3 * m^2 * z - \\
& 45 * a^4 * b^2 * c^3 * g^3 * m^2 * z + 9 * a^3 * b^4 * c^2 * g^3 * m^2 * z + 198 * a^4 * b^3 * c^2 * f^2 * m \\
& ^3 * z - 108 * a^3 * b^3 * c^3 * f^3 * m^2 * z + 18 * a^2 * b^5 * c^2 * f^3 * m^2 * z - 117 * a^4 * b^2 * c \\
& ^3 * f^2 * l^3 * z + 117 * a^3 * b^2 * c^4 * e^3 * m^2 * z + 63 * a^3 * b^4 * c^2 * f^2 * l^3 * z - 63 * a^ \\
& 2 * b^4 * c^3 * e^3 * m^2 * z - 171 * a^2 * b^3 * c^4 * d^3 * m^2 * z - 54 * a^3 * b^3 * c^3 * f^2 * k^3 * z \\
& + 9 * a^3 * b^2 * c^4 * g^3 * j^2 * z + 9 * a^2 * b^5 * c^2 * f^2 * k^3 * z + 18 * a^3 * b^2 * c^4 * f^2 * j^ \\
& 3 * z + 18 * a^2 * b^3 * c^4 * f^3 * j^2 * z - 9 * a^2 * b^4 * c^3 * f^2 * j^3 * z - 45 * a^2 * b^2 * c^5 * e \\
& ^3 * j^2 * z + 9 * a^2 * b^3 * c^4 * f^2 * h^3 * z - 9 * a^2 * b^2 * c^5 * f^2 * g^3 * z + 9 * a * b^8 * d * e * \\
& m^3 * z - 36 * a * b * c^7 * d^4 * h * z - 108 * a^6 * c^3 * h^2 * l * m^2 * z + 108 * a^6 * c^3 * j * k^2 * l^ \\
& 2 * z - 108 * a^6 * c^3 * g * k^2 * m^2 * z - 108 * a^6 * c^3 * e * l^2 * m^2 * z + 108 * a^5 * c^4 * h^2 * j \\
& ^2 * l * z + 108 * a^5 * c^4 * e^2 * l * m^2 * z + 216 * a^5 * c^4 * f^2 * j * m^2 * z + 108 * a^5 * c^4 * h^ \\
& 2 * j * k^2 * z + 108 * a^5 * c^4 * g^2 * j * l^2 * z + 108 * a^5 * c^4 * g * j^2 * k^2 * z - 216 * a^4 * c^5 \\
& * d^2 * k^2 * l * z + 108 * a^5 * c^4 * e * j^2 * l^2 * z - 108 * a^4 * c^5 * e^2 * j^2 * l * z - 9 * a^6 * b^ \\
& 2 * c * l^3 * m^2 * z + 108 * a^5 * c^4 * e * h^2 * m^2 * z - 108 * a^4 * c^5 * f^2 * h^2 * l * z + 108 * a^4 \\
& * c^5 * e^2 * j * k^2 * z + 108 * a^4 * c^5 * d^2 * j * l^2 * z - 144 * a^6 * b * c^2 * j^2 * m^3 * z + 108 * \\
& a^4 * c^5 * g^2 * h^2 * j * z - 27 * a^4 * b^4 * c * j^3 * m^2 * z + 27 * a^4 * b^3 * c^2 * j^4 * m * z + 9 * a \\
& ^5 * b^2 * c^2 * k^4 * l * z + 216 * a^4 * c^5 * e^2 * g * l^2 * z - 108 * a^4 * c^5 * f^2 * g * k^2 * z - 10 \\
& 8 * a^4 * c^5 * d^2 * g * m^2 * z - 9 * a^4 * b^4 * c * j^2 * l^3 * z - 108 * a^4 * c^5 * e * h^2 * j^2 * z - 1 \\
& 08 * a^4 * c^5 * e * f^2 * l^2 * z + 108 * a^3 * c^6 * e^2 * f^2 * l * z - 36 * a^5 * b * c^3 * j^2 * k^3 * z +
\end{aligned}$$



$$\begin{aligned}
& 36a^5b^3c^3h^3m^2z + 108a^3c^6e^2g^2j^2z + 108a^3c^6d^2h^2j^2z \\
& - 216a^5b^3c^3f^2m^3z + 144a^4b^3c^4f^3m^2z + 108a^3c^6d^2g^2j^2z \\
& - 72a^3b^5c^3f^2m^3z - 45a^5b^2c^2g^4l^4z - 9a^4b^3c^2h^4k^4z \\
& - 9a^3b^2c^4g^4l^4z + 9a^2b^3c^4f^4m^2z + 216a^3c^6d^2e^2k^2z \\
& - 9a^2b^6c^3f^2l^3z + 9a^2b^6c^2e^3m^2z + 108a^3c^6e^2f^2h^2z \\
& + 108a^3b^3c^5d^3m^2z + 108a^2c^7d^2e^2j^2z + 72a^4b^3c^4f^2k^3z \\
& + 72a^2b^5c^3d^3m^2z - 72a^3b^3c^5f^3j^2z + 54a^4b^3c^2d^4l^4z \\
& - 45a^4b^2c^3e^4k^4z + 18a^3b^3c^3f^4j^4z + 9a^3b^4c^2e^4k^4z \\
& - 9a^2b^2c^5f^4j^2z - 108a^2c^7d^2f^2g^2z + 9a^3b^2c^4g^4h^4z \\
& + 9a^2b^4c^4e^3j^2z - 72a^2b^3c^6d^3j^2z + 54a^2b^3c^5d^3j^2z \\
& - 36a^3b^3c^5f^2h^3z - 9a^2b^3c^4d^4h^4z + 9a^2b^2c^5e^4g^4z + \\
& 9a^2b^2c^6e^3f^2z + 36a^7c^2l^3m^2z + 72a^6c^3j^3m^2z - 36a^6c^3j^2l^3z \\
& + 9a^4b^5j^2m^3z + 36a^5c^4g^3m^2z + 36a^5c^4f^2l^3z - 36a^4c^5e^3m^2z \\
& - 9b^7c^2d^3m^2z + 9a^2b^7f^2m^3z - 36a^4c^5g^3j^2z + 72a^4c^5f^2j^3z \\
& + 36a^3c^6e^3j^2z - 9b^5c^4d^3j^2z + 36a^3c^6f^2g^3z - 9a^4b^2c^3j^5z \\
& - 36a^2c^7e^3f^2z - 9b^3c^6d^3f^2z + 36a^7c^2j^4m^4z - 36a^6c^3k^4l^4z - \\
& 18a^5b^4j^4m^4z + 36a^6c^3g^4l^4z + 36a^4c^5g^4l^4z + 18a^4b^5f^4m^4z \\
& - 9b^4c^5d^4l^4z + 36a^5c^4e^4k^4z + 36a^3c^6f^4j^4z - 36a^2c^7d^4l^4z \\
& - 36a^4c^5g^4h^4z + 9b^3c^6d^4h^4z - 36a^3c^6e^4g^4z + 36a^2c^7e^4g^4z \\
& - 9b^2c^7d^4e^4z - 36a^7b^3c^5m^5z + 36a^8d^4e^4z + 9a^6b^3m^5z \\
& + 36a^5c^4j^5z + 9a^4b^3c^5g^4h^4j^4k^4l^4m - 9a^3b^4c^5e^4g^4j^4k^4l^4m \\
& - 9a^3b^4c^5d^4h^4j^4k^4l^4m - 9a^3b^4c^5f^4g^4h^4k^4l^4m + 36a^4b^3c^5d^4e^4j^4k^4l^4m \\
& + 9a^2b^5c^5d^4e^4j^4k^4l^4m + 36a^4b^3c^5e^4f^4h^4j^4k^4l^4m + 36a^4b^3c^5e^4f^4g^4k^4l^4m \\
& + 36a^4b^3c^5d^4f^4h^4k^4l^4m + 9a^2b^5c^5e^4f^4g^4k^4l^4m + 9a^2b^5c^5d^4f^4h^4k^4l^4m \\
& + 36a^3b^3c^4d^4e^4f^4h^4k^4l^4m + 36a^3b^3c^4d^4e^4f^4h^4k^4m + 36a^3b^3c^4d^4e^4f^4g^4l^4m \\
& + 9a^2b^5c^2d^4e^4f^4h^4k^4m + 9a^2b^5c^2d^4e^4f^4g^4l^4m - 9a^2b^4c^3d^4e^4f^4h^4j^4k^4 \\
& - 9a^2b^4c^3d^4e^4f^4g^4j^4l^4 - 9a^2b^4c^3d^4e^4f^4g^4h^4m + 9a^2b^3c^4d^4e^4f^4g^4h^4j^4 \\
& - 9a^2b^6c^4d^4e^4f^4k^4l^4m + 18a^4b^2c^2e^4g^4j^4k^4l^4m + 18a^4b^2c^2d^4h^4j^4k^4l^4m \\
& + 18a^4b^2c^2d^4f^4g^4h^4k^4l^4m - 36a^3b^3c^2d^4e^4j^4k^4l^4m - 36a^3b^3c^2d^4e^4f^4g^4k^4l^4m \\
& - 36a^3b^3c^2d^4e^4f^4h^4k^4l^4m + 9a^3b^3c^2d^4e^4g^4h^4j^4k^4l^4m + 9a^3b^3c^2d^4e^4g^4h^4j^4k^4l^4m \\
& - 108a^3b^2c^3d^4e^4f^4k^4l^4m + 54a^2b^4c^2d^4e^4f^4k^4l^4m - 36a^3b^2c^3d^4f^4g^4j^4k^4m \\
& + 18a^3b^2c^3e^4f^4g^4j^4k^4l^4m + 18a^3b^2c^3d^4f^4h^4j^4k^4l^4m + 18a^3b^2c^3d^4e^4g^4j^4l^4m \\
& - 9a^2b^4c^2e^4f^4g^4j^4k^4l^4m - 9a^2b^4c^2d^4f^4h^4j^4k^4l^4m - 9a^2b^4c^2d^4e^4h^4j^4k^4m \\
& - 9a^2b^4c^2d^4e^4g^4j^4l^4m + 18a^3b^2c^3e^4f^4g^4h^4k^4m + 18a^3b^2c^3d^4f^4g^4h^4k^4l^4m \\
& - 9a^2b^4c^2e^4f^4g^4h^4k^4m - 9a^2b^4c^2d^4f^4g^4h^4k^4l^4m - 36a^2b^3c^3d^4e^4f^4j^4k^4l^4m \\
& - 36a^2b^3c^3d^4e^4f^4h^4k^4m - 36a^2b^3c^3d^4e^4f^4g^4l^4m + 9a^2b^3c^3e^4f^4g^4h^4j^4k^4 \\
& + 9a^2b^3c^3d^4f^4g^4h^4j^4l^4 + 9a^2b^3c^3d^4e^4g^4h^4j^4m + 18a^2b^2c^4d^4e^4f^4h^4j^4k^4 \\
& + 18a^2b^2c^4d^4e^4f^4g^4j^4l^4 + 18a^2b^2c^4d^4e^4f^4g^4h^4m - 9a^5b^2c^3g^4j^4k^4l^4m^2 \\
& + 27a^5b^2c^3f^4j^4k^4l^4m^2 - 9a^4b^3c^3f^4j^2k^4l^4m + 9a^3b^4c^3f^2j^4k^4l^4m \\
& - 18a^5b^3c^2e^4j^4k^4l^4m - 9a^5b^2c^3g^4h^4k^4l^4m^2 + 9a^4b^3c^3e^4j^4k^4l^4m^2 \\
& - 18a^5b^3c^2f^4h^4k^4l^4m - 18a^5b^3c^2d^4j^4k^4l^4m^2 + 9a^4b^3c^3f^4h^4j^4k^4l^4m^2 \\
& + 9a^4b^3c^3d^4j^4k^4l^4m^2 + 36a^5b^3c^2e^4h^4k^4l^4m - 36a^4b^3c^3e^2h^4k^4l^4m \\
& + 18a^5b^3c^2f^4h^4j^4l^4m^2 - 18a^5b^3c^2f^4g^4k^4l^4m^2 - 18a^4b^3c^3e^4h^4k^4l^4m^2 \\
& + 9a^4b^3c^3f^4g^4k^4l^4m^2 + 9a^3b^4c^3e^4h^2k^4l^4m - 9a^2b^5c^3e^2h^4k^4l^4m \\
& - 54a^5b^3c^2e^4h^4j^4l^4m^2 - 18a^5b^3c^2e^4g^4k^4l^4m^2 - 18a^5b^3c^2d^4h^4k^4l^4m^2 \\
& + 18a^4b^3c^3e^4h^4j^4l^4m^2 - 9a^4b^3c^3f^4h^4j^4k^4m^2 - 9a^4b^3c^3f^4g^4j^4l^4m^2 \\
& + 9a^4b^3c^3e^4g^4k^4l^4m^2 + 9a^4b^3c^3d^4h^4k^4l^4m^2 + 18a^4b^3c^3f^4g^2j^4k^4m \\
& - 18a^4b^3c^3e^4g^2j^4l^4m + 18a^3b^4c^3d^4g^4k^2l^4m - 9a^3b^4c^3e^4f^4k^2l^4m \\
& - 9a^2b^5c^3d^4g^2k^4l^4m - 18a^4b^3c^3f^4g^2h^4l^4m - 18a^4b^3c^3d^4h^2j^4k^4m \\
& - 9a^3b^4c^3d^4f^4k^4l^4m^2 - 54a^4b^3c^3d^4g^4j^2k^4m - 18a^4b^3c^3f^4g^4h^2k^4m \\
& - 18a^4b^3c^3e^4g^4j^2k^4l^4m - 18a^4b^3c^3d^4h^4j^2k^4l^4m - 18a^3b^4c^3d^4g^4j^4k^4m^2 \\
& + 9a^3b^4c^3e^4f^4j^4k^4m^2 + 9a^3b^4c^3d^4e^4k^4l^4m^2 - 54a^3b^3c^4d^2f^4j^4k^4m \\
& + 36a^4b^3c^3d^4g^4j^4k^4l^4 - 36a^3b^3c^4d^2g^4j^4k^4l^4 - 18a^4
\end{aligned}$$

$$\begin{aligned}
& *b*c^3*e*f*j*k^2*1 + 18*a^4*b*c^3*d*f*j*k^2*m - 18*a^3*b*c^4*d^2*e*j*1*m + \\
& 9*a^3*b^4*c*f*g*h*j*m^2 - 9*a*b^5*c^2*d^2*g*j*k*1 + 36*a^4*b*c^3*d*g*h*k^2* \\
& m - 36*a^3*b*c^4*d^2*g*h*k*m + 18*a^4*b*c^3*e*g*h*k^2*1 - 18*a^4*b*c^3*e*f* \\
& h*k^2*m - 18*a^4*b*c^3*d*f*j*k*1^2 - 18*a^3*b*c^4*d^2*f*h*1*m - 18*a^3*b*c^ \\
& 4*d*e^2*j*k*m - 9*a*b^5*c^2*d^2*g*h*k*m - 54*a^4*b*c^3*d*g*h*k*1^2 - 54*a^3 \\
& *b*c^4*e^2*f*h*j*m - 18*a^4*b*c^3*d*f*g*1^2*m - 18*a^3*b*c^4*e^2*f*g*k*m - \\
& 54*a^4*b*c^3*d*f*g*k*m^2 - 36*a^4*b*c^3*e*f*g*j*m^2 - 36*a^4*b*c^3*d*f*h*j* \\
& m^2 + 36*a^3*b*c^4*e*f^2*g*j*m + 36*a^3*b*c^4*d*f^2*h*j*m - 18*a^4*b*c^3*d* \\
& e*h*k*m^2 - 18*a^4*b*c^3*d*e*g*1*m^2 + 18*a^3*b*c^4*e*f^2*h*j*1 - 18*a^3*b* \\
& c^4*e*f^2*g*k*1 - 18*a^3*b*c^4*d*f^2*h*k*1 + 18*a^3*b*c^4*d*f^2*g*k*m - 9*a \\
& ^2*b^5*c*e*f*g*j*m^2 - 9*a^2*b^5*c*d*f*h*j*m^2 - 54*a^3*b*c^4*d*f*g^2*j*m - \\
& 18*a^3*b*c^4*e*f*g^2*j*1 - 18*a*b^4*c^3*d^2*f*g*j*m + 9*a*b^4*c^3*d^2*g*h* \\
& j*k + 9*a*b^4*c^3*d^2*f*g*k*1 + 9*a*b^4*c^3*d^2*e*g*k*m - 9*a*b^4*c^3*d^2*e \\
& *f*1*m - 18*a^3*b*c^4*e*f*g^2*h*m - 18*a^3*b*c^4*d*f*h^2*j*k - 9*a*b^4*c^3* \\
& d*e^2*f*k*m + 18*a^3*b*c^4*d*f*g*j^2*k - 18*a^3*b*c^4*d*f*g*h^2*m - 18*a^3* \\
& b*c^4*d*e*h*j^2*k - 18*a^3*b*c^4*d*e*g*j^2*1 + 18*a*b^4*c^3*d*e*f^2*j*m - 9 \\
& *a*b^5*c^2*d*e*f*j^2*m - 9*a*b^4*c^3*d*e*f^2*k*1 - 18*a^2*b*c^5*d^2*e*f*j*1 \\
& - 9*a*b^3*c^4*d^2*e*g*j*k + 9*a*b^3*c^4*d^2*e*f*j*1 - 54*a^2*b*c^5*d^2*e*g \\
& *h*1 - 18*a^2*b*c^5*d^2*e*f*h*m - 18*a^2*b*c^5*d*e^2*f*j*k + 18*a*b^3*c^4*d \\
& ^2*e*g*h*1 - 9*a*b^3*c^4*d^2*f*g*h*k + 9*a*b^3*c^4*d^2*e*f*h*m + 9*a*b^3*c^ \\
& 4*d*e^2*f*j*k - 36*a^3*b*c^4*d*e*f*h*1^2 + 36*a^2*b*c^5*d*e^2*f*h*1 + 18*a^ \\
& 2*b*c^5*d*e^2*g*h*k - 18*a^2*b*c^5*d*e^2*f*g*m - 18*a*b^3*c^4*d*e^2*f*h*1 - \\
& 9*a*b^5*c^2*d*e*f*h*1^2 + 9*a*b^4*c^3*d*e*f*h^2*1 + 9*a*b^3*c^4*d*e^2*f*g* \\
& m - 18*a^2*b*c^5*d*e*f^2*h*k - 18*a^2*b*c^5*d*e*f^2*g*1 + 9*a*b^3*c^4*d*e*f \\
& ^2*h*k + 9*a*b^3*c^4*d*e*f^2*g*1 + 27*a*b^2*c^5*d^2*e*f*g*k + 9*a*b^4*c^3*d \\
& *e*f*g*k^2 - 9*a*b^3*c^4*d*e*f*g^2*k - 9*a*b^2*c^5*d^2*e*f*h*j - 9*a*b^2*c^ \\
& 5*d*e^2*f*g*j - 9*a*b^2*c^5*d*e*f^2*g*h + 72*a^4*c^4*d*f*g*j*k*m + 72*a^4*c \\
& ^4*d*e*f*k*1*m + 9*a*b^6*c*d^2*g*k*1*m + 9*a*b^6*c*d*e*f*j*m^2 - 27*a^4*b^2 \\
& *c^2*f^2*j*k*1*m - 9*a^4*b^2*c^2*g^2*h*j*1*m + 36*a^3*b^3*c^2*e^2*h*k*1*m - \\
& 18*a^4*b^2*c^2*e*h^2*k*1*m - 9*a^4*b^2*c^2*g*h^2*j*k*m + 18*a^4*b^2*c^2*f* \\
& h*j^2*k*m + 18*a^4*b^2*c^2*f*g*j^2*1*m - 18*a^4*b^2*c^2*e*h*j^2*1*m - 9*a^4 \\
& *b^2*c^2*g*h*j^2*k*1 - 9*a^3*b^3*c^2*f^2*h*j*k*m - 9*a^3*b^3*c^2*f^2*g*j*1* \\
& m - 63*a^4*b^2*c^2*d*g*k^2*1*m + 63*a^3*b^2*c^3*d^2*g*k*1*m - 45*a^2*b^4*c^ \\
& 2*d^2*g*k*1*m + 36*a^4*b^2*c^2*e*f*k^2*1*m + 27*a^3*b^3*c^2*d*g^2*k*1*m - 9 \\
& *a^4*b^2*c^2*f*h*j*k^2*1 - 9*a^4*b^2*c^2*e*h*j*k^2*m + 9*a^3*b^3*c^2*e*g^2* \\
& j*1*m - 9*a^3*b^2*c^3*d^2*h*j*1*m + 36*a^4*b^2*c^2*d*f*k*1^2*m + 27*a^4*b^2 \\
& *c^2*e*h*j*k*1^2 - 27*a^3*b^2*c^3*e^2*h*j*k*1 - 18*a^3*b^2*c^3*e^2*f*j*1*m \\
& - 9*a^4*b^2*c^2*f*g*j*k*1^2 - 9*a^4*b^2*c^2*d*g*j*1^2*m + 9*a^3*b^3*c^2*f*g \\
& ^2*h*1*m - 9*a^3*b^3*c^2*e*h^2*j*k*1 + 9*a^3*b^3*c^2*d*h^2*j*k*m - 9*a^3*b^ \\
& 2*c^3*e^2*g*j*k*m + 9*a^2*b^4*c^2*e^2*h*j*k*1 + 72*a^4*b^2*c^2*d*g*j*k*m^2 \\
& + 36*a^4*b^2*c^2*d*e*k*1*m^2 + 27*a^4*b^2*c^2*e*g*h*1^2*m - 27*a^4*b^2*c^2* \\
& e*f*j*k*m^2 - 27*a^4*b^2*c^2*d*f*j*1*m^2 - 27*a^3*b^2*c^3*e^2*g*h*1*m + 27* \\
& a^3*b^2*c^3*e*f^2*j*k*m + 27*a^3*b^2*c^3*d*f^2*j*1*m + 18*a^3*b^3*c^2*d*g*j \\
& ^2*k*m + 9*a^3*b^3*c^2*f*g*h^2*k*m + 9*a^3*b^3*c^2*e*g*j^2*k*1 - 9*a^3*b^3* \\
& c^2*e*g*h^2*1*m - 9*a^3*b^3*c^2*e*f*j^2*k*m + 9*a^3*b^3*c^2*d*h*j^2*k*1 - 9 \\
& *a^3*b^3*c^2*d*f*j^2*1*m + 9*a^2*b^4*c^2*e^2*g*h*1*m + 36*a^2*b^3*c^3*d^2*g \\
& *j*k*1 - 27*a^4*b^2*c^2*f*g*h*j*m^2 + 27*a^3*b^2*c^3*f^2*g*h*j*m - 18*a^4*b \\
& ^2*c^2*e*f*h*1*m^2 - 18*a^3*b^3*c^2*d*g*j*k^2*1 - 18*a^3*b^2*c^3*d*g^2*j*k* \\
& 1 + 18*a^2*b^3*c^3*d^2*f*j*k*m - 9*a^4*b^2*c^2*e*g*h*k*m^2 - 9*a^4*b^2*c^2* \\
& d*g*h*1*m^2 - 9*a^3*b^3*c^2*f*g*h*j^2*m + 9*a^3*b^3*c^2*e*f*j*k^2*1 - 9*a^3 \\
& *b^2*c^3*f^2*g*h*k*1 + 9*a^2*b^4*c^2*d*g^2*j*k*1 + 9*a^2*b^3*c^3*d^2*e*j*1* \\
& m + 36*a^3*b^2*c^3*e*f*g^2*1*m + 36*a^2*b^3*c^3*d^2*g*h*k*m - 18*a^3*b^3*c^ \\
& 2*d*g*h*k^2*m - 18*a^3*b^2*c^3*d*g^2*h*k*m + 9*a^3*b^3*c^2*e*f*h*k^2*m + 9* \\
& a^3*b^3*c^2*d*f*j*k*1^2 - 9*a^3*b^2*c^3*f*g^2*h*j*1 - 9*a^3*b^2*c^3*e*g^2*h \\
& *j*m - 9*a^2*b^4*c^2*e*f*g^2*1*m + 9*a^2*b^4*c^2*d*g^2*h*k*m + 9*a^2*b^3*c^ \\
& 3*d^2*f*h*1*m + 9*a^2*b^3*c^3*d*e^2*j*k*m + 36*a^3*b^2*c^3*d*f*h^2*k*m + 36 \\
& *a^3*b^2*c^3*d*e*j^2*k*1 + 18*a^3*b^3*c^2*d*g*h*k*1^2 + 18*a^3*b^2*c^3*e*g* \\
& h^2*j*1 + 18*a^3*b^2*c^3*e*f*h^2*k*1 - 18*a^3*b^2*c^3*e*f*h^2*j*m - 18*a^3* \\
& b^2*c^3*d*g*h^2*k*1 + 18*a^3*b^2*c^3*d*e*h^2*1*m + 18*a^2*b^3*c^3*e^2*f*h*j
\end{aligned}$$

$$\begin{aligned}
& *m - 9a^3b^3c^2e*gh*j^1l^2 - 9a^3b^3c^2e*f*h*k^1l^2 + 9a^3b^3c^2* \\
& d*f*g^1l^2*m - 9a^3b^3c^2*d*e*h^1l^2*m - 9a^3b^2c^3*f*g*h^2*j*k - 9a^3 \\
& *b^2c^3*d*g*h^2*j*m - 9a^2b^4c^2*d*f*h^2*k*m - 9a^2b^4c^2*d*e*j^2*k* \\
& l - 9a^2b^3c^3*e^2*g*h*j^1 - 9a^2b^3c^3*e^2*f*h*k^1 + 9a^2b^3c^3*e \\
& ^2*f*g*k^1*m - 9a^2b^3c^3*d*e^2*h^1l^2*m + 36a^3b^3c^2e*f*g*j^1m^2 + 36a^ \\
& 3b^3c^2*d*f*h*j^1m^2 + 18a^3b^3c^2*d*f*g*k^1m^2 - 18a^3b^2c^3e*f*g*j \\
& ^2*m - 18a^3b^2c^3*d*f*h*j^2*m - 18a^2b^3c^3e*f^2*g*j^1m - 18a^2b^3 \\
& *c^3*d*f^2*h*j^1m + 9a^3b^3c^2*d*e*h*k^1m^2 + 9a^3b^3c^2*d*e*g^1l^2*m - \\
& 9a^3b^2c^3e*g*h*j^2*k - 9a^3b^2c^3*d*g*h*j^2*l + 9a^2b^4c^2e*f*g \\
& *j^2*m + 9a^2b^4c^2*d*f*h*j^2*m + 9a^2b^3c^3e*f^2*g*k^1 + 9a^2b^3c \\
& ^3*d*f^2*h*k^1 + 72a^2b^2c^4*d^2*f*g*j^1m + 36a^2b^2c^4*d^2*e*f^1l^2*m + \\
& 27a^3b^2c^3*d*g*h*j^1k^2 + 27a^3b^2c^3*d*f*g*k^2*l + 27a^3b^2c^3*d \\
& *e*g*k^2*m - 27a^2b^2c^4*d^2*g*h*j^1k - 27a^2b^2c^4*d^2*f*g*k^1 - 27a \\
& ^2b^2c^4*d^2*e*g*k^1m + 18a^2b^3c^3*d*f*g^2*j^1m - 18a^2b^2c^4*d^2*e* \\
& h*k^1 - 9a^3b^2c^3e*f*h*j^1k^2 + 9a^2b^3c^3e*f*g^2*j^1l - 9a^2b^3c \\
& ^3*d*g^2*h*j^1k - 9a^2b^3c^3*d*f*g^2*k^1 - 9a^2b^3c^3*d*e*g^2*k^1m - 9* \\
& a^2b^2c^4*d^2*f*h*j^1l - 9a^2b^2c^4*d^2*e*h*j^1m + 36a^2b^2c^4*d*e^2* \\
& f*k^1m - 27a^3b^2c^3*d*e*h*j^1l^2 + 27a^2b^2c^4*d*e^2*h*j^1l - 18a^3b^ \\
& 2c^3*d*e*g*k^1l^2 - 9a^3b^2c^3*d*f*g*j^1l^2 + 9a^2b^4c^2*d*e*h*j^1l^2 + \\
& 9a^2b^3c^3e*f*g^2*h^1m + 9a^2b^3c^3*d*f*h^2*j^1k - 9a^2b^3c^3*d*e* \\
& h^2*j^1l - 9a^2b^2c^4*e^2*f*g*j^1k - 9a^2b^2c^4*d*e^2*g*j^1m + 63a^3b^ \\
& 2c^3*d*e*f*j^1m^2 - 63a^2b^2c^4*d*e*f^2*j^1m - 45a^2b^4c^2*d*e*f*j^1m^2 \\
& + 36a^2b^2c^4*d*e*f^2*k^1 - 27a^3b^2c^3e*f*g*h^1l^2 + 27a^2b^3c^3 \\
& *d*e*f*j^2m + 27a^2b^2c^4e^2*f*g*h^1 + 9a^2b^4c^2e*f*g*h^1l^2 - 9a \\
& ^2b^3c^3e*f*g*h^2*l + 9a^2b^3c^3*d*f*g*h^2*m + 9a^2b^3c^3*d*e*h*j^ \\
& 2*k + 9a^2b^3c^3*d*e*g*j^2*l + 18a^2b^2c^4*d*e*g^2*j^1k - 9a^3b^2c^ \\
& 3*d*e*g*h^1m^2 - 9a^2b^3c^3*d*e*g*j^1k^2 - 9a^2b^2c^4e*f^2*g*h^1k - 9a \\
& ^2b^2c^4*d*f^2*g*h^1l + 18a^2b^2c^4*d*f*g^2*h^1k - 18a^2b^2c^4*d*d*e*g^ \\
& 2*h^1l - 9a^2b^3c^3*d*f*g*h^1k^2 - 9a^2b^2c^4e*f*g^2*h^1j + 36a^2b^3c \\
& ^3*d*e*f*h^1l^2 - 18a^2b^2c^4*d*e*f*h^2*l - 9a^2b^2c^4*d*f*g*h^2*j - \\
& 9a^2b^2c^4*d*e*g*h^2*j^2 - 27a^2b^2c^4*d*e*f*g*k^2 + 18a^2b^2c^4*d^2 \\
& *f*h^1k^2 - 9a^2b^3c^3e*f*g^2*k^2 - 9a^2b^2c^4e^2*f*h^1j^2 - 9a^2b^ \\
& 2c^4*d*f^2*h^2*k + 45a^2b^3c^3*d*e*f^2*m^2 + 36a^2b^2c^4*d^2*e*g^1l^2 \\
& + 9a^2b^3c^3*d*e*g^2*l^2 + 9a^2b^2c^4e*f^2*g*j^2 + 9a^2b^2c^4*d* \\
& f^2*h^1j^2 - 9a^2b^2c^4*d*e^2*h^1k^2 - 36a^2b^2c^4*d*e^2*f^1l^2 - 9a^2* \\
& b^2c^4*d*f*g^2*j^2 - 12a^6b^6c^6*h^6k^6l^6 + 3a^6b^6c^6e^6k^6l^6 + 3a^6b^6* \\
& c^6*d*e*f^6l^6 - 12a^6b^6c^6*d*e^6f^6h + 9a^5b^2c^2*h^2*k^1l^2*m + 18a^5b^6c^2 \\
& *g^2*k^2l^1m - 9a^5b^2c^2*h^2*j^1l^2*m + 9a^5b^6c^2*h^2*j^2l^1m - 9a^4b^ \\
& 3c^3*g^2*k^2l^1m - 3a^4b^2c^2*g^3*k^1l^1m + 18a^5b^6c^2*f^2*k^1l^1m^2 + 15a \\
& ^3b^3c^2*f^3*k^1l^1m + 9a^5b^2c^2*h^2*j^2k^1m^2 + 9a^5b^2c^2*g^2*j^1l^2m - \\
& 9a^4b^3c^3*f^2*k^1l^2m + 36a^3b^2c^3e^3*k^1l^1m - 27a^5b^6c^2*g^2*j^ \\
& k^1m^2 - 18a^5b^6c^2*h^2*j^1k^1l^2 - 18a^2b^4c^2e^3*k^1l^1m - 9a^5b^2c^2*g \\
& *j^1k^2m^2 - 9a^5b^2c^2*e^6k^2l^1m^2 + 9a^5b^6c^2*h^2*j^2k^2l^1 + 9a^5b^6c^ \\
& 2*g^2*j^2k^2m + 9a^4b^3c^3*g^2*j^1k^1m^2 + 9a^3b^4c^4e^2*k^1l^2m + 3a^4b^ \\
& ^2c^2*h^3*j^1k^1l - 54a^4b^6c^3*d^2*k^2l^1m - 51a^2b^3c^3*d^3*k^1l^1m - 27 \\
& *a^4b^6c^3e^2*j^2l^1m - 18a^5b^6c^2*g^2*h^2l^1m - 9a^5b^2c^2*e^6j^1l^2m^2 \\
& - 9a^5b^2c^2*d^6k^1l^2m^2 + 9a^5b^6c^2*g^2*h^1l^2m + 9a^5b^6c^2*g^2*j^2k^ \\
& l^2 + 9a^5b^6c^2*e^6j^2l^1m^2 - 9a^3b^4c^4e^2*j^1l^2m - 9a^2b^5c^5*d^2*k \\
& ^2l^1m + 3a^4b^2c^2*g^3*h^3l^1m - 3a^3b^3c^2*g^3*j^1k^1l + 18a^5b^6c^2*e \\
& *j^2k^1m^2 + 18a^5b^6c^2*d^2*j^2l^1m^2 + 18a^4b^6c^3*f^2*j^2k^1l + 9a^5b^6 \\
& c^2*g^2*h^2k^1m^2 + 9a^5b^6c^2*f^2*h^2l^1m^2 + 9a^5b^6c^2*f^2*j^1k^2l^1 - 9a^4 \\
& *b^3c^3e^6j^2k^1m^2 - 9a^4b^3c^3*d^2*j^2l^1m^2 + 9a^4b^2c^2*f^2*j^3k^1l + 9* \\
& a^4b^2c^2*e^6j^3k^1m + 9a^4b^2c^2*d^2*j^3l^1m + 9a^4b^6c^3*f^2*h^2l^1m + \\
& 9a^4b^6c^3e^2*j^1k^2m + 9a^4b^6c^3*d^2*j^1l^2m - 3a^3b^3c^2*g^3*h^1k^ \\
& m - 3a^3b^2c^3*f^3*j^1k^1l + 3a^2b^4c^2*f^3*j^1k^1l + 45a^4b^6c^3*d^2*j^ \\
& k^1m^2 - 27a^5b^6c^2*d^2*j^1k^2m^2 + 18a^5b^6c^2*g^2*h^2j^2m^2 + 18a^4b^6c^3* \\
& e^2*j^1k^1l^2 + 15a^2b^3c^3e^3*j^1k^1l - 12a^3b^2c^3*f^3*h^1k^1m - 12a^3* \\
& b^2c^3*f^3*g^1l^1m + 9a^5b^6c^2*g^2*h^1k^2l^1 - 9a^4b^3c^3*g^2*h^2j^2m^2 + 9a
\end{aligned}$$

$$\begin{aligned}
& ^4b^3c^*d^*j^*k^2m^2 + 9a^4b^2c^2g^*h^*j^3m + 9a^4b^*c^3g^2h^2k^*l + \\
& 9a^4b^*c^3g^2h^2j^*m + 9a^2b^5c^*d^2j^*k^*m^2 + 3a^2b^4c^2f^3h^*k^*m \\
& + 3a^2b^4c^2f^3g^*l^*m + 36a^2b^2c^4d^3j^*k^*l + 18a^4b^*c^3e^2g^* \\
& l^2m + 15a^2b^3c^3e^3g^*l^*m + 12a^4b^2c^2d^*j^*k^3l + 9a^5b^*c^2f^ \\
& *g^*k^2m^2 + 9a^5b^*c^2e^*h^*k^2m^2 + 9a^4b^*c^3g^2h^*j^2l + 9a^4b^*c^ \\
& 3f^2h^*k^2l + 9a^4b^*c^3f^2g^*k^2m + 9a^4b^*c^3d^2h^*l^*m^2 - 9a^3b^ \\
& ^3c^2e^*h^3k^*m + 6a^2b^3c^3e^3h^*k^*m + 45a^4b^*c^3e^2h^*j^*m^2 + 36a^ \\
& ^2b^2c^4d^3h^*k^*m - 33a^3b^2c^3d^*g^3l^*m - 27a^4b^*c^3f^2h^*j^*l^2 \\
& - 27a^4b^*c^3e^2f^*l^*m^2 - 27a^4b^*c^3e^*h^2j^2m - 18a^4b^*c^3g^2h^ \\
& *j^*k^2 - 18a^4b^*c^3f^*g^2k^2l - 18a^4b^*c^3e^*g^2k^2m - 18a^3b^*c^4 \\
& *d^2g^2l^*m + 12a^4b^2c^2d^*h^*k^3m + 9a^5b^*c^2e^*f^*l^2m^2 + 9a^5b^ \\
& *c^2d^*g^*l^2m^2 + 9a^4b^*c^3f^2g^*k^*l^2 + 9a^4b^*c^3e^2g^*k^*m^2 + 9a^ \\
& 4b^*c^3g^*h^2j^2k + 9a^4b^*c^3f^*h^2j^2l + 9a^4b^*c^3e^*f^2l^2m - 9 \\
& *a^3b^4c^*e^*h^2j^*m^2 + 9a^3b^*c^4e^2f^2l^*m + 9a^2b^5c^*e^2h^*j^*m^2 \\
& + 9a^2b^4c^2d^*g^3l^*m - 9a^2b^2c^4d^3g^*l^*m - 9a^*b^5c^2d^2g^2l^ \\
& *m - 6a^4b^2c^2e^*h^*k^3l - 6a^3b^2c^3f^*g^3j^*m + 3a^4b^2c^2g^*h^* \\
& j^*k^3 + 3a^4b^2c^2f^*g^*k^3l + 3a^4b^2c^2e^*g^*k^3m + 3a^3b^2c^3g^ \\
& ^3h^*j^*k + 3a^3b^2c^3f^*g^3k^*l + 3a^3b^2c^3e^*g^3k^*m - 27a^3b^*c^4 \\
& *d^2h^2k^*l + 18a^4b^*c^3e^*f^2k^*m^2 + 18a^4b^*c^3d^*f^2l^*m^2 + 9a^4* \\
& b^*c^3f^*h^2j^*k^2 + 9a^4b^*c^3f^*g^2j^*l^2 + 9a^4b^*c^3e^*g^2k^*l^2 + 9a^ \\
& 4b^*c^3d^*h^2k^2l + 9a^3b^4c^*e^*g^*j^2m^2 + 9a^3b^4c^*d^*h^*j^2m^2 - \\
& 9a^3b^3c^2e^*g^*j^3m - 9a^3b^3c^2d^*h^*j^3m + 9a^3b^*c^4e^2g^2k^*l \\
& + 9a^3b^*c^4e^2g^2j^*m + 9a^3b^*c^4d^2h^2j^*m - 3a^2b^3c^3f^3h^* \\
& j^*k - 3a^2b^3c^3f^3g^*j^*l - 3a^2b^3c^3e^*f^3k^*m - 3a^2b^3c^3d^*f^ \\
& ^3l^*m + 45a^4b^*c^3d^*g^2j^*m^2 + 45a^3b^*c^4d^2g^*j^2m + 24a^4b^2c^ \\
& ^2d^*g^*k^*l^3 + 24a^2b^2c^4e^3f^*j^*m + 18a^4b^*c^3f^2g^*h^*m^2 + 18a^4 \\
& *b^*c^3d^*h^2j^*l^2 + 18a^3b^*c^4e^2h^2j^*k - 12a^4b^2c^2e^*g^*j^*l^3 - \\
& 12a^4b^2c^2e^*f^*k^*l^3 - 12a^4b^2c^2d^*e^*l^3m - 12a^2b^2c^4e^3g^* \\
& j^*l - 12a^2b^2c^4e^3f^*k^*l - 12a^2b^2c^4d^*e^3l^*m + 9a^4b^*c^3f^*g^ \\
& *j^2k^2 + 9a^4b^*c^3e^*h^*j^2k^2 + 9a^3b^2c^3e^*h^3j^*k + 9a^3b^2c^ \\
& 3d^*h^3j^*l + 9a^3b^*c^4f^2g^2j^*k + 9a^3b^*c^4d^2h^*j^2l + 9a^2b^5 \\
& *c^*d^*g^2j^*m^2 + 9a^*b^5c^2d^2g^*j^2m - 3a^4b^2c^2d^*h^*j^*l^3 - 3a^2* \\
& b^3c^3f^3g^*h^*m - 3a^2b^2c^4e^3h^*j^*k + 18a^4b^*c^3f^*g^*h^2l^2 + 18 \\
& *a^3b^*c^4e^2g^*h^2m + 18a^3b^*c^4d^2h^*j^*k^2 + 18a^3b^*c^4d^2f^*k^2* \\
& l + 18a^3b^*c^4d^2e^*k^2m + 9a^4b^*c^3e^*g^2h^*m^2 + 9a^4b^*c^3e^*f^*j^ \\
& ^2l^2 + 9a^4b^*c^3d^*g^*j^2l^2 + 9a^3b^2c^3f^*g^*h^3l + 9a^3b^2c^3e^ \\
& *g^*h^3m + 9a^3b^*c^4f^2g^2h^*l + 9a^3b^*c^4e^2g^*j^2k + 9a^3b^*c^4* \\
& e^2f^*j^2l - 9a^2b^3c^3d^*g^3j^*l + 9a^*b^4c^3d^2g^2j^*l - 3a^4b^2 \\
& *c^2f^*g^*h^*l^3 - 3a^3b^3c^2e^*g^*j^*k^3 - 3a^3b^3c^2d^*h^*j^*k^3 - 3a^3* \\
& b^3c^2d^*f^*k^3l - 3a^3b^3c^2d^*e^*k^3m - 3a^2b^2c^4e^3g^*h^*m - 33* \\
& a^3b^2c^3d^*e^*j^3m - 27a^4b^*c^3e^*f^*h^2m^2 - 27a^3b^*c^4d^2e^*k^*l^2 \\
& - 18a^4b^*c^3d^*e^*j^2m^2 - 18a^3b^*c^4e^*f^2j^2k - 18a^3b^*c^4d^*f^2 \\
& *j^2l - 9a^4b^2c^2d^*e^*j^*m^3 + 9a^4b^*c^3d^*g^*h^2m^2 + 9a^4b^*c^3d^* \\
& e^*k^2l^2 + 9a^3b^*c^4f^2g^*h^2k + 9a^3b^*c^4e^2f^*j^*k^2 + 9a^3b^*c^4 \\
& *d^2f^*j^*l^2 + 9a^3b^*c^4e^*f^2h^2m + 9a^3b^*c^4d^*e^2k^2l - 9a^2b^ \\
& ^5c^*d^*e^*j^2m^2 + 9a^2b^4c^2d^*e^*j^3m - 9a^2b^3c^3d^*g^3h^*m + 9a^2 \\
& *b^*c^5d^2e^2k^*l + 9a^2b^*c^5d^2e^2j^*m + 9a^*b^4c^3d^2g^2h^*m - 6* \\
& a^3b^2c^3d^*g^*j^3k - 3a^3b^3c^2f^*g^*h^*k^3 + 3a^3b^2c^3e^*f^*j^3k + \\
& 3a^3b^2c^3d^*f^*j^3l + 3a^2b^2c^4e^*f^3j^*k + 3a^2b^2c^4d^*f^3j^* \\
& l + 45a^3b^*c^4d^2g^*h^*l^2 + 36a^4b^2c^2e^*f^*g^*m^3 + 36a^4b^2c^2d^* \\
& f^*h^*m^3 - 27a^3b^*c^4e^2g^*h^*k^2 - 27a^3b^*c^4d^*g^2h^2l - 18a^3b^*c^ \\
& 4f^2g^*h^*j^2 + 18a^3b^*c^4d^*e^2j^*l^2 + 15a^3b^3c^2d^*e^*j^*l^3 + 12a^ \\
& 2b^2c^4e^*f^3g^*m + 12a^2b^2c^4d^*f^3h^*m + 9a^3b^*c^4f^*g^2h^2j + \\
& 9a^3b^*c^4e^*g^2h^2k + 9a^3b^*c^4d^*f^2j^*k^2 + 9a^2b^*c^5d^2f^2j^*k \\
& + 9a^*b^5c^2d^2g^*h^*l^2 - 9a^*b^4c^3d^2g^*h^2l - 6a^2b^2c^4e^*f^3* \\
& h^*l + 3a^3b^2c^3f^*g^*h^*j^3 + 3a^2b^2c^4f^3g^*h^*j + 45a^3b^*c^4d^2* \\
& f^*g^*m^2 - 27a^2b^*c^5d^2f^2g^*m + 18a^3b^*c^4e^2f^*g^*l^2 + 15a^3b^3* \\
& c^2e^*f^*g^*l^3 - 12a^3b^2c^3d^*e^*j^*k^3 + 9a^3b^*c^4d^2e^*h^*m^2 + 9a^3* \\
& b^*c^4e^*g^2h^*j^2 + 9a^3b^*c^4e^*f^2h^*k^2 - 9a^2b^3c^3d^*f^*h^3l + 9a
\end{aligned}$$

$$\begin{aligned}
& ^2*b*c^5*d^2*f^2*h*1 + 9*a*b^5*c^2*d^2*f*g*m^2 + 9*a*b^3*c^4*d^2*f^2*g*m + \\
& 6*a^3*b^3*c^2*d*f*h*1^3 + 3*a^2*b^4*c^2*d*e*j*k^3 + 18*a^3*b*c^4*e*f*g^2*k^2 + \\
& 18*a^2*b*c^5*d^2*g^2*h*j + 18*a^2*b*c^5*d^2*f*g^2*1 + 18*a^2*b*c^5*d^2* \\
& e*g^2*m - 12*a^3*b^2*c^3*d*f*h*k^3 + 9*a^3*b*c^4*e*f*h^2*j^2 + 9*a^3*b*c^4* \\
& d*f^2*g*1^2 + 9*a^3*b*c^4*d*e^2*g*m^2 + 9*a^3*b*c^4*d*g*h^2*j^2 + 9*a^2*b^2* \\
& c^4*e*f*g^3*k + 9*a^2*b^2*c^4*d*g^3*h*j + 9*a^2*b^2*c^4*d*f*g^3*1 + 9*a^2*b^2* \\
& b^2*c^4*d*e*g^3*m + 9*a^2*b*c^5*e^2*f^2*h*j + 9*a^2*b*c^5*e^2*f^2*g*k - 9*a* \\
& b^3*c^4*d^2*g^2*h*j - 9*a*b^3*c^4*d^2*f*g^2*1 - 9*a*b^3*c^4*d^2*e*g^2*m - \\
& 3*a^3*b^2*c^3*e*f*g*k^3 + 3*a^2*b^4*c^2*e*f*g*k^3 + 3*a^2*b^4*c^2*d*f*h*k^3 - \\
& 54*a^3*b*c^4*d*e*f^2*m^2 - 51*a^3*b^3*c^2*d*e*f*m^3 - 27*a^3*b*c^4*d*e*g^2*1^2 + \\
& 9*a^3*b*c^4*d*e*h^2*k^2 + 9*a^2*b*c^5*e^2*f*g^2*j + 9*a^2*b*c^5*d^2* \\
& f*h^2*j + 9*a^2*b*c^5*d^2*e*h^2*k + 9*a^2*b*c^5*d*e^2*g^2*1 - 9*a*b^5*c^2* \\
& d*e*f^2*m^2 - 9*a*b^4*c^3*d^2*e*g*1^2 - 9*a*b^2*c^5*d^2*e^2*g*1 - 9*a*b^2* \\
& c^5*d^2*e^2*f*m - 3*a^2*b^3*c^3*e*f*g*j^3 - 3*a^2*b^3*c^3*d*f*h*j^3 + 36*a^3* \\
& b^2*c^3*d*e*f*1^3 - 27*a^2*b*c^5*d^2*f*g*j^2 - 18*a^2*b^4*c^2*d*e*f*1^3 - \\
& 18*a^2*b*c^5*d*e^2*h^2*j + 9*a^2*b*c^5*d^2*e*h*j^2 + 9*a^2*b*c^5*d*f^2*g^2* \\
& j + 9*a*b^4*c^3*d*e^2*f*1^2 + 9*a*b^3*c^4*d^2*f*g*j^2 - 9*a*b^2*c^5*d^2*f^2* \\
& g*j - 9*a*b^2*c^5*d^2*e*f^2*1 + 3*a^2*b^2*c^4*d*e*h^3*j - 18*a^2*b*c^5*e^2* \\
& f*g*h^2 + 18*a^2*b*c^5*d^2*e*f*k^2 + 15*a^2*b^3*c^3*d*e*f*k^3 + 9*a^2*b*c^5* \\
& e*f^2*g^2*h + 9*a^2*b*c^5*d*e^2*g*j^2 - 9*a*b^3*c^4*d^2*e*f*k^2 + 9*a*b^2* \\
& c^5*d^2*e*g^2*j - 9*a*b^2*c^5*d*e^2*f^2*k + 3*a^2*b^2*c^4*e*f*g*h^3 + 18* \\
& a^2*b*c^5*d*e*f^2*j^2 + 9*a^2*b*c^5*d*f^2*g*h^2 - 9*a*b^3*c^4*d*e*f^2*j^2 + \\
& 9*a*b^2*c^5*d^2*f*g^2*h - 3*a^2*b^2*c^4*d*e*f*j^3 + 9*a^2*b*c^5*d*e*g^2*h^2 - \\
& 9*a*b^2*c^5*d^2*e*g*h^2 + 9*a*b^2*c^5*d*e^2*f*h^2 - 36*a^6*c^2*f*j*k*1* \\
& m^2 + 36*a^5*c^3*f^2*j*k*1*m - 36*a^5*c^3*f*h^2*j*1*m + 36*a^5*c^3*e*h*j^2* \\
& 1*m - 18*a^6*b*c*j^2*k*1*m^2 + 9*a^6*b*c*j*k^2*1^2*m + 3*a^5*b^2*c*j^3*k*1* \\
& m - 36*a^5*c^3*f*g*j*k^2*m - 36*a^5*c^3*e*f*k^2*1*m + 36*a^5*c^3*d*g*k^2*1* \\
& m - 36*a^4*c^4*d^2*g*k*1*m - 36*a^5*c^3*e*h*j*k*1^2 - 36*a^5*c^3*e*f*j*1^2* \\
& m - 36*a^5*c^3*d*f*k*1^2*m + 36*a^4*c^4*e^2*h*j*k*1 + 36*a^4*c^4*e^2*f*j*1* \\
& m + 9*a^6*b*c*h*k^2*1*m^2 - 3*a^4*b^3*c*h^3*k*1*m - 36*a^5*c^3*e*g*h*1^2*m + \\
& 36*a^5*c^3*e*f*j*k*m^2 - 36*a^5*c^3*d*g*j*k*m^2 + 36*a^5*c^3*d*f*j*1*m^2 - \\
& 36*a^5*c^3*d*e*k*1*m^2 + 36*a^4*c^4*e^2*g*h*1*m - 36*a^4*c^4*e*f^2*j*k*m - \\
& 36*a^4*c^4*d*f^2*j*1*m + 9*a^6*b*c*h*j*1^2*m^2 + 9*a^6*b*c*g*k*1^2*m^2 + \\
& 9*a^5*b^2*c*g*k^3*1*m + 3*a^3*b^4*c*g^3*k*1*m + 36*a^5*c^3*f*g*h*j*m^2 + 36* \\
& a^5*c^3*e*f*h*1*m^2 - 36*a^4*c^4*f^2*g*h*j*m - 36*a^4*c^4*e*f^2*h*1*m - 24* \\
& a^4*b*c^3*f^3*k*1*m - 12*a^5*b*c^2*h*j^3*k*m - 12*a^5*b*c^2*g*j^3*1*m - 3* \\
& a^2*b^5*c*f^3*k*1*m - 36*a^4*c^4*e*g^2*h*k*1 - 36*a^4*c^4*e*f*g^2*1*m + 12* \\
& a^5*b^2*c*e*k*1^3*m - 6*a^5*b^2*c*f*j*1^3*m + 3*a^5*b^2*c*h*j*k*1^3 + 48*a^3* \\
& b*c^4*d^3*k*1*m + 36*a^4*c^4*e*f*h^2*j*m + 36*a^4*c^4*d*g*h^2*k*1 - 36*a^4* \\
& c^4*d*f*h^2*k*m - 36*a^4*c^4*d*e*j^2*k*1 + 24*a^5*b*c^2*d*k^3*1*m + 21*a* \\
& b^5*c^2*d^3*k*1*m - 12*a^5*b*c^2*g*j*k^3*1 - 9*a^4*b^3*c*d*k^3*1*m + 6*a^5* \\
& b*c^2*f*j*k^3*m + 3*a^5*b^2*c*g*h*1^3*m - 36*a^4*c^4*e*f*h*j^2*1 - 12*a^5*b* \\
& c^2*g*h*k^3*m - 3*a^5*b^2*c*e*j*k*m^3 - 3*a^5*b^2*c*d*j*1*m^3 - 36*a^4*c^4* \\
& d*g*h*j*k^2 - 36*a^4*c^4*d*f*g*k^2*1 - 36*a^4*c^4*d*e*h*k^2*1 - 36*a^4*c^4* \\
& d*e*g*k^2*m + 36*a^3*c^5*d^2*g*h*j*k + 36*a^3*c^5*d^2*f*g*k*1 - 36*a^3*c^5* \\
& d^2*f*g*j*m + 36*a^3*c^5*d^2*e*h*k*1 + 36*a^3*c^5*d^2*e*g*k*m - 36*a^3*c^5* \\
& d^2*e*f*1*m + 24*a^5*b^2*c*e*h*1*m^3 - 24*a^3*b*c^4*e^3*j*k*1 - 12*a^5*b^2* \\
& c*f*h*k*m^3 - 12*a^5*b^2*c*f*g*1*m^3 - 3*a^5*b^2*c*g*h*j*m^3 - 3*a^4*b^3*c* \\
& e*j*k*1^3 - 3*a*b^5*c^2*e^3*j*k*1 + 36*a^4*c^4*d*e*h*j*1^2 + 36*a^4*c^4*d* \\
& e*g*k*1^2 - 36*a^3*c^5*d*e^2*h*j*1 - 36*a^3*c^5*d*e^2*g*k*1 - 36*a^3*c^5*d* \\
& e^2*f*k*m + 24*a^4*b*c^3*e*h^3*k*m - 24*a^3*b*c^4*e^3*g*1*m - 18*a*b^4*c^3* \\
& d^3*j*k*1 - 12*a^4*b*c^3*g*h^3*j*1 - 12*a^4*b*c^3*f*h^3*k*1 - 12*a^4*b*c^3* \\
& d*h^3*1*m + 12*a^3*b*c^4*e^3*h*k*m + 6*a^4*b*c^3*f*h^3*j*m - 3*a^4*b^3*c*g* \\
& h*j*1^3 - 3*a^4*b^3*c*f*h*k*1^3 - 3*a^4*b^3*c*e*g*1^3*m - 3*a^4*b^3*c*d*h*1^3* \\
& m - 3*a*b^5*c^2*e^3*h*k*m - 3*a*b^5*c^2*e^3*g*1*m + 36*a^4*c^4*e*f*g*h*1^2 - \\
& 36*a^4*c^4*d*e*f*j*m^2 - 36*a^3*c^5*e^2*f*g*h*1 - 36*a^3*c^5*d*f^2*g*j* \\
& k - 36*a^3*c^5*d*e*f^2*k*1 + 36*a^3*c^5*d*e*f^2*j*m - 18*a*b^4*c^3*d^3*h*k* \\
& m - 9*a*b^4*c^3*d^3*g*1*m + 30*a^5*b*c^2*d*g*k*m^3 - 30*a^4*b^3*c*d*g*k*m^3 - \\
& 24*a^5*b*c^2*e*f*k*m^3 - 24*a^5*b*c^2*d*f*1*m^3 + 24*a^4*b*c^3*e*g*j^3*
\end{aligned}$$

$$\begin{aligned}
& m + 24a^4b^3c^3d^3h^3j^3m + 15a^4b^3c^3e^3f^3k^3m^3 + 15a^4b^3c^3d^3f^3l^3m^3 \\
& + 12a^5b^3c^2e^3g^3j^3m^3 + 12a^5b^3c^2d^3h^3j^3m^3 - 12a^4b^3c^3f^3h^3j^3k \\
& - 12a^4b^3c^3f^3g^3j^3l + 6a^4b^3c^3e^3g^3j^3m^3 + 6a^4b^3c^3d^3h^3j^3m^3 \\
& + 6a^4b^3c^3e^3h^3j^3l + 36a^3c^5d^3e^3g^2h^3l - 24a^5b^3c^2f^3g^3h^3m^3 + \\
& 15a^4b^3c^3f^3g^3h^3m^3 - 9a^3b^6c^3d^2g^3j^3m^2 - 6a^3b^4c^3d^3g^3k^3l^3 - 6 \\
& *a^3b^4c^3e^3f^3j^3m + 3a^3b^4c^3e^3g^3j^3l^3 + 3a^3b^4c^3e^3f^3k^3l^3 + 3a^3 \\
& *b^4c^3d^3h^3j^3l^3 + 3a^3b^4c^3d^3e^3l^3m + 3a^3b^4c^3e^3h^3j^3k + 3a^3b^4 \\
& *c^3e^3g^3j^3l + 3a^3b^4c^3e^3f^3k^3l + 3a^3b^4c^3d^3e^3l^3m - 36a^3c^5 \\
& *d^3e^3g^3h^2k + 30a^2b^3c^5d^3f^3j^3m - 30a^3b^3c^4d^3f^3j^3m + 24a^3b^3c \\
& ^4d^3g^3j^3l - 24a^2b^3c^5d^3h^3j^3k - 24a^2b^3c^5d^3f^3k^3l - 24a^2b^3c \\
& ^5d^3e^3k^3m + 15a^3b^3c^4d^3h^3j^3k + 15a^3b^3c^4d^3f^3k^3l + 15a^3b^3c \\
& ^4d^3e^3k^3m - 12a^3b^3c^4e^3g^3j^3k + 12a^2b^3c^5d^3g^3j^3l + 6a^3b^3c^4 \\
& d^3g^3j^3l + 3a^3b^4c^3f^3g^3h^3l^3 + 3a^3b^4c^3e^3g^3h^3m + 24a^3b^3c^4 \\
& d^3g^3h^3m - 12a^3b^3c^4f^3g^3h^3k + 12a^2b^3c^5d^3g^3h^3m - 9a^3b^4c^3d \\
& *e^3j^3m^3 + 6a^3b^3c^4e^3g^3h^3l + 6a^3b^3c^4d^3g^3h^3m + 36a^3c^5d^3e^3f \\
& *g^3k^2 - 36a^2c^6d^2e^3f^3g^3k - 24a^4b^3c^3d^3e^3j^3l^3 - 18a^3b^4c^3e^3f \\
& *g^3m^3 - 18a^3b^4c^3d^3f^3h^3m^3 - 3a^2b^5c^3d^3e^3j^3l^3 - 3a^3b^3c^4d^3e^3 \\
& *j^3l - 24a^4b^3c^3e^3f^3g^3l^3 + 24a^3b^3c^4d^3f^3h^3l + 12a^4b^3c^3d^3f^3h \\
& *l^3 - 12a^3b^3c^4e^3g^3h^3j - 12a^3b^3c^4e^3f^3h^3k - 12a^3b^3c^4d^3e^3h \\
& ^3m - 12a^3b^2c^5d^3e^3j^3k + 6a^3b^3c^4d^3g^3h^3k - 3a^2b^5c^3e^3f^3g^3l \\
& ^3 - 3a^2b^5c^3d^3f^3h^3l^3 - 3a^3b^3c^4e^3g^3h^3j - 3a^3b^3c^4e^3f^3h^3k \\
& - 3a^3b^3c^4e^3f^3g^3l - 3a^3b^3c^4d^3e^3h^3m + 24a^3b^2c^5d^3e^3h^3l - \\
& 12a^3b^2c^5d^3f^3h^3k - 3a^3b^2c^5d^3g^3h^3j - 3a^3b^2c^5d^3f^3g^3l - 3 \\
& *a^3b^2c^5d^3e^3g^3m + 48a^4b^3c^3d^3e^3f^3m^3 + 24a^2b^3c^5d^3e^3f^3m^3 + 21 \\
& *a^2b^5c^3d^3e^3f^3m^3 - 12a^2b^3c^5e^3f^3g^3j - 12a^2b^3c^5d^3f^3h^3j - 9a \\
& *b^3c^4d^3e^3f^3m^3 + 6a^2b^3c^5d^3f^3g^3k + 12a^3b^2c^5d^3e^3f^3l - 6a^3b \\
& ^2c^5d^3e^3g^3k + 3a^3b^2c^5d^3e^3h^3j - 24a^3b^3c^4d^3e^3f^3k^3 - 12a^2b \\
& *c^5d^3e^3g^3j - 3a^3b^5c^2d^3e^3f^3k^3 + 3a^3b^2c^5e^3f^3g^3h - 12a^2b \\
& *c^5d^3f^3g^3h + 9a^3b^2c^5d^3e^3f^3j + 9a^3b^3c^6d^2e^2f^3j + 3a^3b^4c^3 \\
& *d^3e^3f^3j^3 + 9a^3b^3c^6d^2e^2g^3h + 9a^3b^3c^6d^2e^2f^2h - 3a^3b^3c^4d^3 \\
& *e^3f^3h^3 - 18a^3b^3c^6d^2e^2f^3g^2 + 9a^3b^3c^6d^2e^2f^2g^2 + 3a^3b^2c^5d^3e \\
& *f^3g^3 - 36a^4b^2c^2e^2k^3l^2m - 9a^4b^2c^2g^2j^2k^3m + 45a^3b^3 \\
& *c^2d^2k^2l^3m + 36a^4b^2c^2e^2j^3l^3m^2 + 9a^4b^2c^2g^2j^2k^2l + \\
& 9a^3b^3c^2e^2j^2l^3m + 9a^4b^2c^2g^2h^3k^2m - 9a^4b^2c^2f^2h^3l^2m - \\
& 9a^3b^3c^2f^2j^2k^3l - 45a^3b^3c^2d^2j^2k^3m^2 + 36a^3b^2 \\
& *c^3d^2j^2k^3m + 18a^4b^2c^2f^2h^3k^3m^2 + 18a^4b^2c^2f^2g^3l^3m^2 \\
& - 9a^4b^2c^2g^2h^3k^3l^2 - 9a^4b^2c^2f^2h^2k^2m - 9a^4b^2c^2f^2 \\
& *g^2l^2m - 9a^4b^2c^2e^2j^2k^2l - 9a^4b^2c^2d^2j^2k^2m - 9a^3b^3 \\
& *c^2e^2j^2k^3l^2 - 9a^2b^4c^2d^2j^2k^3m - 36a^3b^2c^3d^2j^2k^2 \\
& *l - 27a^3b^2c^3e^2h^2k^3m + 9a^4b^2c^2g^2h^2j^3l^2 + 9a^4b^2c^2f^2 \\
& *h^2k^3l^2 - 9a^4b^2c^2f^2g^2k^3m^2 - 9a^4b^2c^2e^2g^2l^3m^2 - 9a^4 \\
& *b^2c^2d^2j^2k^3l^2 + 9a^4b^2c^2d^2h^2l^2m - 9a^3b^3c^2e^2g^3l^2 \\
& *m + 9a^2b^4c^2e^2h^2k^3m + 9a^2b^4c^2d^2j^2k^2l - 45a^3b^3c^2e^2 \\
& *h^2j^3m^2 + 36a^4b^2c^2e^2h^2j^3m^2 + 36a^3b^2c^3e^2h^2j^2m - 36 \\
& *a^3b^2c^3d^2h^2k^2m + 36a^2b^3c^3d^2g^2l^3m - 9a^4b^2c^2f^2h^2j^2 \\
& *l^2 - 9a^4b^2c^2d^2h^2k^3m^2 + 9a^3b^3c^2f^2h^2j^3l^2 + 9a^3b^3c^2 \\
& *e^2f^3l^3m^2 + 9a^3b^3c^2e^2h^2j^2m - 9a^3b^2c^3f^2h^2j^3l - 9 \\
& *a^2b^4c^2e^2h^2j^2m + 9a^2b^4c^2d^2h^2k^2m + 36a^3b^2c^3d^2h^2 \\
& *k^3l^2 - 27a^4b^2c^2e^2g^3j^2m^2 - 27a^4b^2c^2d^2h^2j^2m^2 - 9a^4b^2 \\
& *c^2d^2h^2k^2l^2 - 9a^3b^3c^2e^2f^2k^3m^2 - 9a^3b^3c^2d^2f^2l^3m^2 + \\
& 9a^3b^2c^3f^2h^2j^2k + 9a^3b^2c^3f^2g^3j^2l - 9a^3b^2c^3e^2g^3 \\
& *k^2l - 9a^3b^2c^3e^2f^3k^2m - 9a^3b^2c^3d^2f^3l^2m - 9a^2b^4c^2 \\
& *d^2h^2k^3l^2 + 9a^2b^3c^3d^2h^2k^3l - 81a^3b^2c^3d^2g^3j^3m^2 + \\
& 54a^2b^4c^2d^2g^3j^3m^2 - 45a^3b^3c^2d^2g^2j^3m^2 - 45a^2b^3c^3d^2 \\
& *g^2j^2m + 36a^3b^2c^3d^2f^3k^3m^2 + 36a^3b^2c^3d^2g^2j^2m + 18a^3 \\
& *b^2c^3e^2g^3j^3l^2 + 18a^3b^2c^3e^2f^3k^3l^2 + 18a^3b^2c^3d^2e^2l^2 \\
& *m - 9a^4b^2c^2d^2f^3k^2m^2 - 9a^3b^3c^2f^2g^3h^3m^2 - 9a^3b^3c^2 \\
& *d^2h^2j^3l^2 - 9a^3b^2c^3f^2g^3j^2k^2 - 9a^3b^2c^3d^2e^3l^3m^2 - 9a \\
& ^3b^2c^3f^2g^2h^2m - 9a^3b^2c^3e^2g^2j^2l - 9a^3b^2c^3e^2f^2k^2
\end{aligned}$$

$$\begin{aligned}
& 2*1 - 9*a^2*b^4*c^2*d^2*f*k*m^2 - 9*a^2*b^4*c^2*d*g^2*j^2*m - 9*a^2*b^3*c^3 \\
& *e^2*h^2*j*k - 9*a^2*b^2*c^4*d^2*f^2*k*m - 27*a^2*b^2*c^4*d^2*g^2*j*1 - 9*a \\
& ^3*b^3*c^2*f*g*h^2*1^2 + 9*a^3*b^2*c^3*e*g^2*j*k^2 - 9*a^3*b^2*c^3*e*f^2*j* \\
& 1^2 - 9*a^3*b^2*c^3*d*h^2*j^2*k - 9*a^3*b^2*c^3*d*f^2*k*1^2 - 9*a^3*b^2*c^3 \\
& *d*e^2*k*m^2 - 9*a^2*b^3*c^3*e^2*g*h^2*m - 9*a^2*b^3*c^3*d^2*h*j*k^2 - 9*a^ \\
& 2*b^3*c^3*d^2*f*k^2*1 - 9*a^2*b^3*c^3*d^2*e*k^2*m + 36*a^3*b^3*c^2*d*e*j^2* \\
& m^2 + 36*a^3*b^2*c^3*e^2*f*h*m^2 - 27*a^2*b^2*c^4*d^2*g^2*h*m + 9*a^3*b^3*c \\
& ^2*e*f*h^2*m^2 + 9*a^3*b^2*c^3*f*g^2*h*k^2 - 9*a^2*b^4*c^2*e^2*f*h*m^2 + 9* \\
& a^2*b^3*c^3*d^2*e*k*1^2 - 9*a^2*b^2*c^4*e^2*f^2*h*m - 45*a^2*b^3*c^3*d^2*g* \\
& h*1^2 - 36*a^3*b^2*c^3*e*f^2*g*m^2 + 36*a^3*b^2*c^3*d*g^2*h*1^2 - 36*a^3*b^ \\
& 2*c^3*d*f^2*h*m^2 + 36*a^2*b^2*c^4*d^2*g*h^2*1 - 9*a^3*b^2*c^3*e*g*h^2*k^2 \\
& + 9*a^2*b^4*c^2*e*f^2*g*m^2 - 9*a^2*b^4*c^2*d*g^2*h*1^2 + 9*a^2*b^4*c^2*d*f \\
& ^2*h*m^2 + 9*a^2*b^3*c^3*e^2*g*h*k^2 + 9*a^2*b^3*c^3*d*g^2*h^2*1 - 9*a^2*b^ \\
& 3*c^3*d*e^2*j*1^2 - 9*a^2*b^2*c^4*e^2*g^2*h*k - 9*a^2*b^2*c^4*e^2*f*g^2*m - \\
& 9*a^2*b^2*c^4*d^2*f*j^2*k - 9*a^2*b^2*c^4*d^2*f*h^2*m - 9*a^2*b^2*c^4*d^2* \\
& e*j^2*1 - 45*a^2*b^3*c^3*d^2*f*g*m^2 + 36*a^3*b^2*c^3*d*f*g^2*m^2 - 27*a^3* \\
& b^2*c^3*d*f*h^2*1^2 + 18*a^2*b^2*c^4*d^2*e*j*k^2 + 9*a^2*b^4*c^2*d*f*h^2*1^ \\
& 2 - 9*a^2*b^4*c^2*d*f*g^2*m^2 - 9*a^2*b^3*c^3*e^2*f*g*1^2 + 9*a^2*b^2*c^4*e \\
& ^2*g*h^2*j + 9*a^2*b^2*c^4*e^2*f*h^2*k - 9*a^2*b^2*c^4*e*f^2*g^2*1 - 9*a^2* \\
& b^2*c^4*d*f^2*g^2*m - 9*a^2*b^2*c^4*d*e^2*j^2*k + 9*a^2*b^2*c^4*d*e^2*h^2*m \\
& + 18*a^4*b^2*c^2*f^2*j^2*m^2 + 18*a^3*b^2*c^3*e^2*h^2*1^2 - 9*a^2*b^4*c^2* \\
& e^2*h^2*1^2 + 18*a^2*b^2*c^4*d^2*g^2*k^2 + 12*a^6*c^2*j^3*k*1*m + 3*a^6*b^2 \\
& *j*k*1*m^3 - 12*a^6*c^2*g*k^3*1*m - 12*a^5*c^3*g^3*k*1*m - 24*a^6*c^2*e*k*1 \\
& ^3*m - 24*a^4*c^4*e^3*k*1*m + 12*a^6*c^2*h*j*k*1^3 + 12*a^6*c^2*f*j*1^3*m + \\
& 12*a^5*c^3*h^3*j*k*1 - 3*a^5*b^3*h*j*k*m^3 - 3*a^5*b^3*g*j*1*m^3 - 3*a^5*b \\
& ^3*f*k*1*m^3 + 12*a^6*c^2*g*h*1^3*m + 12*a^5*c^3*g*h^3*1*m - 12*a^6*c^2*e*j \\
& *k*m^3 - 12*a^6*c^2*d*j*1*m^3 - 12*a^5*c^3*f*j^3*k*1 - 12*a^5*c^3*e*j^3*k*m \\
& - 12*a^5*c^3*d*j^3*1*m - 12*a^4*c^4*f^3*j*k*1 + 24*a^6*c^2*f*h*k*m^3 + 24* \\
& a^6*c^2*f*g*1*m^3 + 24*a^4*c^4*f^3*h*k*m + 24*a^4*c^4*f^3*g*1*m - 12*a^6*c^ \\
& 2*g*h*j*m^3 - 12*a^6*c^2*e*h*1*m^3 - 12*a^5*c^3*g*h*j^3*m + 3*b^6*c^2*d^3*j \\
& *k*1 + 3*a^4*b^4*e*j*k*m^3 + 3*a^4*b^4*d*j*1*m^3 - 24*a^5*c^3*d*j*k^3*1 - 2 \\
& 4*a^3*c^5*d^3*j*k*1 - 6*a^4*b^4*e*h*1*m^3 + 3*b^6*c^2*d^3*h*k*m + 3*b^6*c^2 \\
& *d^3*g*1*m + 3*a^6*b*c*j^2*1^3*m + 3*a^4*b^4*g*h*j*m^3 + 3*a^4*b^4*f*h*k*m^ \\
& 3 + 3*a^4*b^4*f*g*1*m^3 - 24*a^5*c^3*d*h*k^3*m - 24*a^3*c^5*d^3*h*k*m + 12* \\
& a^5*c^3*g*h*j*k^3 + 12*a^5*c^3*f*g*k^3*1 + 12*a^5*c^3*e*h*k^3*1 + 12*a^5*c^ \\
& 3*e*g*k^3*m + 12*a^4*c^4*g^3*h*j*k + 12*a^4*c^4*f*g^3*k*1 + 12*a^4*c^4*f*g^ \\
& 3*j*m + 12*a^4*c^4*e*g^3*k*m + 12*a^4*c^4*d*g^3*1*m + 12*a^3*c^5*d^3*g*1*m \\
& + 3*a^6*b*c*j*k^3*m^2 - 9*a^6*b*c*h^2*1*m^3 - 3*a^5*b*c^2*j^4*k*1 + 24*a^5* \\
& c^3*e*g*j*1^3 + 24*a^5*c^3*e*f*k*1^3 + 24*a^5*c^3*d*e*1^3*m + 24*a^3*c^5*e^ \\
& 3*g*j*1 + 24*a^3*c^5*e^3*f*k*1 + 24*a^3*c^5*d*e^3*1*m - 12*a^5*c^3*d*h*j*1^ \\
& 3 - 12*a^5*c^3*d*g*k*1^3 - 12*a^4*c^4*e*h^3*j*k - 12*a^4*c^4*d*h^3*j*1 - 12 \\
& *a^3*c^5*e^3*h*j*k - 12*a^3*c^5*e^3*f*j*m + 9*a^4*b*c^3*g^4*1*m + 6*b^5*c^3 \\
& *d^3*f*j*m + 6*a^3*b^5*d*g*k*m^3 - 3*b^5*c^3*d^3*h*j*k - 3*b^5*c^3*d^3*g*j* \\
& 1 - 3*b^5*c^3*d^3*f*k*1 - 3*b^5*c^3*d^3*e*k*m - 3*a^3*b^5*e*g*j*m^3 - 3*a^3 \\
& *b^5*e*f*k*m^3 - 3*a^3*b^5*d*h*j*m^3 - 3*a^3*b^5*d*f*1*m^3 - 12*a^5*c^3*f*g \\
& *h*1^3 - 12*a^4*c^4*f*g*h^3*1 - 12*a^4*c^4*e*g*h^3*m - 12*a^3*c^5*e^3*g*h*m \\
& - 9*a^6*b*c*g*k^2*m^3 - 3*b^5*c^3*d^3*g*h*m + 3*a^6*b*c*f*1^3*m^2 - 3*a^3* \\
& b^5*f*g*h*m^3 + 12*a^5*c^3*d*e*j*m^3 + 12*a^4*c^4*e*f*j^3*k + 12*a^4*c^4*d* \\
& g*j^3*k + 12*a^4*c^4*d*f*j^3*1 + 12*a^4*c^4*d*e*j^3*m + 12*a^3*c^5*e*f^3*j* \\
& k + 12*a^3*c^5*d*f^3*j*1 - 9*a^6*b*c*e*1^2*m^3 - 24*a^5*c^3*e*f*g*m^3 - 24* \\
& a^5*c^3*d*f*h*m^3 - 24*a^3*c^5*e*f^3*g*m - 24*a^3*c^5*d*f^3*h*m - 15*a^2*b* \\
& c^5*d^4*1*m + 15*a*b^3*c^4*d^4*1*m + 12*a^4*c^4*f*g*h*j^3 + 12*a^3*c^5*f^3* \\
& g*h*j + 12*a^3*c^5*e*f^3*h*1 + 9*a^3*b*c^4*f^4*k*1 - 9*a^3*b*c^4*f^4*j*m + \\
& 3*b^4*c^4*d^3*e*j*k + 3*a^5*b^2*c*g*j*1^4 + 3*a^5*b^2*c*f*k*1^4 + 3*a^5*b^2 \\
& *c*d*1^4*m - 3*a^5*b*c^2*h*j*k^4 - 3*a^5*b*c^2*f*k^4*1 - 3*a^5*b*c^2*e*k^4* \\
& m - 3*a^4*b*c^3*h^4*j*k + 3*a^2*b^6*d*e*j*m^3 + 3*a*b^4*c^3*e^4*k*m + 24*a^ \\
& 4*c^4*d*e*j*k^3 + 24*a^2*c^6*d^3*e*j*k - 6*b^4*c^4*d^3*e*h*1 + 3*b^4*c^4*d^ \\
& 3*g*h*j + 3*b^4*c^4*d^3*f*h*k + 3*b^4*c^4*d^3*f*g*1 + 3*b^4*c^4*d^3*e*g*m - \\
& 3*a^4*b*c^3*g*h^4*m + 3*a^2*b^6*e*f*g*m^3 + 3*a^2*b^6*d*f*h*m^3 - 3*a*b^6*
\end{aligned}$$

$$\begin{aligned}
& c^3j^2m^2 + 24a^4c^4d^3fh^3k + 24a^2c^6d^3fh^3k - 12a^4c^4ef^3g^3k^3 - 12a^3c^5ef^3g^3k^3 - 12a^3c^5d^3g^3h^3j - 12a^3c^5d^3f^3g^3l \\
& - 12a^3c^5d^3e^3g^3m - 12a^2c^6d^3g^3h^3j - 12a^2c^6d^3f^3g^3l - 12a^2c^6d^3e^3h^3l - 12a^2c^6d^3e^3g^3m - 12a^2c^6d^3e^3j^4k \\
& + 9a^5b^2c^5d^4j^4l + 9a^2b^3c^5e^4j^4k - 3a^4b^3c^5d^4j^4l - 3a^4b^3c^5e^4j^4k - 3a^4b^3c^5d^4j^4l - 3a^4b^3c^5e^4j^4k - 24a^4c^4d^3ef^3l^3 - 24a^2c^6d^3e^3f^3l^3 \\
& - 12a^5b^2c^5e^3g^3m^4 - 12a^5b^2c^5d^3h^3m^4 + 12a^3c^5d^3e^3h^3j^3 + 12a^2c^6d^3e^3h^3j^3 + 12a^2c^6d^3e^3g^3k^3 - 12a^2c^6d^3e^3h^3m^3 \\
& + 9a^5b^2c^5f^3g^3l^3 - 9a^5b^2c^5e^3h^3l^3 - 9a^2b^3c^5e^4h^3l^3 + 9a^2b^3c^5e^4g^3m^3 + 6a^4b^3c^5e^4h^3l^3 + 6a^4b^3c^5e^4h^3m^3 - 3b^3c^5d^3e^3g^3j^3 \\
& - 3b^3c^5d^3e^3f^3k^3 - 3a^4b^3c^5f^3g^3l^3 - 3a^4b^3c^5g^3h^3j^3 - 3a^3b^3c^4g^4h^3j^3 - 3a^3b^3c^4f^4g^4l^3 - 3a^3b^3c^4e^3g^4m^3 - 3a^3b^3c^4e^4g^3m^3 \\
& + 12a^3c^5ef^3g^3h^3 + 12a^2c^6e^3f^3g^3h^3 - 3b^3c^5d^3f^3g^3h^3 - 12a^3c^5d^3ef^3j^3 - 12a^2c^6d^3ef^3j^3 - 3a^2b^6c^5d^2g^3l^3 - 15a^5b^2c^5d^3e^3m^4 \\
& + 15a^4b^3c^5d^3e^3m^4 + 9a^4b^3c^5e^3f^3k^4 - 9a^4b^3c^5d^3e^3g^3k^4 + 3a^3b^4c^5d^3e^3l^4 - 3a^3b^4c^5d^3e^3h^4j^3 - 3a^2b^5c^5e^3f^4k^3 \\
& - 3a^2b^5c^5d^3f^4l^3 + 3a^2b^5c^5e^4g^3j^3 + 3a^2b^5c^5e^4f^3k^3 + 3a^2b^5c^5d^3e^4m^3 - 9a^2b^5c^6d^3e^2l^3 + 3b^2c^6d^3e^3f^3g^3 - 3a^3b^3c^4f^3g^3h^4 \\
& - 3a^2b^3c^5f^4g^3h^3 + 12a^2c^6d^3ef^3g^3 - 9a^2b^3c^6d^3f^2j^3 + 3a^2b^3c^6d^2e^3k^3 + 9a^3b^3c^4d^3e^3j^4 - 3a^2b^3c^5e^3f^3g^4 - 9a^2b^3c^6d^3e^3h^2 \\
& + 3a^2b^3c^6d^2f^3g^3 + 3a^2b^3c^6d^3e^3g^2 - 3a^4b^2c^2h^3j^2m^2 + 12a^4b^2c^2g^3j^2m^2 - 3a^4b^2c^2f^2k^3m^2 + 3a^3b^3c^2g^3j^2m^2 \\
& - 9a^3b^4c^2f^2j^2m^2 + 9a^3b^3c^2f^2j^2m^2 - 6a^3b^3c^2f^3j^2m^2 - 6a^3b^2c^3f^3j^2m^2 - 3a^2b^4c^2f^3j^2m^2 - 27a^4b^2c^2d^2k^3m^3 \\
& - 27a^3b^2c^3e^3j^2m^2 + 18a^2b^4c^2e^3j^2m^2 - 15a^2b^3c^3e^3j^2m^2 + 12a^4b^2c^2f^2j^2m^2 + 3a^3b^3c^2e^2k^3l^3 + 42a^2b^3c^3d^3j^2m^2 \\
& - 27a^2b^2c^4d^3j^2m^2 - 15a^3b^3c^2d^2k^3l^3 - 3a^4b^2c^2f^3j^2k^3 - 3a^4b^2c^2f^3h^3m^2 + 3a^3b^3c^2g^3h^3l^2 + 3a^3b^3c^2f^2j^3k^3 \\
& - 3a^3b^2c^3g^3h^2l^3 - 3a^3b^2c^3e^2j^3l^3 - 27a^4b^2c^2e^2h^3m^3 + 12a^3b^2c^3f^3h^3l^2 + 3a^3b^3c^2f^3g^3m^2 - 3a^2b^4c^2f^3h^3l^2 \\
& + 3a^2b^3c^3f^3h^2l^3 + 9a^3b^3c^2e^3h^3l^3 - 6a^4b^2c^2e^3h^2l^3 - 6a^3b^3c^2e^2h^3l^3 - 6a^2b^3c^3e^3h^3l^2 - 6a^2b^2c^4e^3h^2l^2 \\
& + 3a^2b^3c^3d^2j^3k^3 + 42a^3b^3c^2d^2g^3m^3 - 27a^4b^2c^2d^3g^2m^3 - 27a^2b^2c^4d^3h^3l^2 - 15a^2b^3c^3e^3f^3m^2 + 12a^3b^2c^3e^2h^3k^3 \\
& + 3a^3b^3c^2e^3h^2k^3 - 3a^3b^2c^3e^3g^3l^2 - 3a^2b^4c^2e^2h^3k^3 + 3a^2b^3c^3f^3g^3k^2 - 3a^2b^2c^4f^3g^2k^3 - 27a^3b^2c^3d^2g^3l^3 \\
& - 27a^2b^2c^4d^3f^3m^2 + 18a^2b^4c^2d^2g^3l^3 - 15a^3b^3c^2d^3g^2l^3 + 12a^2b^2c^4e^3g^3k^2 - 3a^3b^2c^3e^3h^2j^3 + 3a^2b^3c^3e^2h^3j^3 \\
& + 3a^2b^3c^3e^3f^3l^2 - 3a^2b^2c^4d^2h^3k^3 + 9a^2b^3c^3d^3g^3k^2 - 9a^2b^4c^3d^2g^2k^2 - 6a^3b^2c^3d^3g^2k^3 - 6a^2b^3c^3d^2g^2k^3 \\
& - 3a^2b^4c^2d^3g^2k^3 + 12a^2b^2c^4d^2g^2j^3 + 3a^2b^3c^3d^3g^2j^3 - 3a^2b^2c^4d^3f^3k^2 - 3a^2b^2c^4d^3g^2h^3 + 12a^7c^5j^3k^3l^3m^3 \\
& - 3b^7c^5d^3k^3l^3m^3 - 3a^6b^3c^4k^3l^3m^3 - 3a^6b^3c^4j^3k^3l^4 - 3a^6b^3c^4g^3l^4m^3 - 9a^6b^3c^4f^3j^3m^4 + 9a^6b^3c^4e^3k^3m^4 \\
& + 9a^6b^3c^4d^3l^3m^4 + 9a^6b^3c^4g^3h^3m^4 - 3a^6b^7d^3e^3f^3m^3 + 9a^6b^3c^6d^4h^3j^3 - 9a^6b^3c^6d^4g^3k^3 + 9a^6b^3c^6d^4f^3l^3 \\
& + 9a^6b^3c^6d^4e^3m^3 + 12a^6c^7d^3e^3f^3g^3 - 3a^6b^3c^6d^3e^4j^3 - 3a^6b^3c^6e^4f^3g^3 - 3a^6b^3c^6d^3e^4f^3 + 18a^6c^2h^2j^3l^3m^2 \\
& - 18a^6c^2h^2j^2l^2m^2 + 18a^6c^2f^3k^2l^2m^2 + 36a^5c^3e^2k^3l^2m^2 + 18a^6c^2g^3j^2k^2m^2 + 18a^6c^2e^3k^2l^2m^2 + 18a^5c^3g^2j^2k^2m^2 \\
& + 18a^6c^2e^3j^2l^2m^2 + 18a^6c^2d^3k^3l^2m^2 - 18a^5c^3e^2j^3l^3m^2 - 18a^6c^2f^3h^3l^2m^2 + 18a^5c^3f^2h^3l^2m^2 \\
& - 36a^5c^3f^2h^3k^3m^2 - 36a^5c^3f^2g^3l^3m^2 + 18a^5c^3g^2h^3k^3l^2 - 18a^5c^3g^2h^2k^2l^2 + 18a^5c^3f^3h^2k^2l^2m^2 \\
& + 18a^5c^3f^3g^2l^2m^2 + 18a^5c^3e^3j^2k^2l^2 + 18a^5c^3d^3j^2k^2l^2m^2 - 18a^4c^4d^2j^2k^3m^2 + 36a^4c^4d^2j^2k^2l^2 \\
& + 18a^5c^3f^3g^2k^3m^2 + 18a^5c^3e^3g^2l^3m^2 + 18a^5c^3d^3j^2k^3l^2 - 18a^4c^4f^2g^2k^3m^2 + 36a^4c^4d^2h^3k^3l^2m^2 \\
& + 18a^5c^3f^3h^3j^2l^2 - 18a^5c^3e^3h^2j^2m^2 + 18a^5c^3d^3h^2k^3m^2 + 18a^4c^4f^2h^2j^2l^2 - 18a^4c^4e^2h^3j^2m^2 - 18a^5c^3e^3g^3k^2
\end{aligned}$$



$$\begin{aligned}
& *l^2 + 18a^5c^3d^2h^2k^2l^2 + 18a^4c^4e^2g^2k^2l + 18a^4c^4e^2f^2k^2 \\
& \quad \cdot m - 18a^4c^4d^2h^2k^2l^2 + 18a^4c^4d^2f^2l^2m - 36a^4c^4e^2g^2j \\
& \quad \cdot l^2 - 36a^4c^4e^2f^2k^2l^2 - 36a^4c^4d^2e^2l^2m + 18a^5c^3d^2f^2k^2 \\
& \quad \cdot m^2 + 18a^4c^4f^2g^2j^2k^2 + 18a^4c^4d^2g^2j^2m^2 - 18a^4c^4d^2f^2k \\
& \quad \cdot m^2 + 18a^4c^4d^2e^2l^2m^2 - 18a^4c^4f^2g^2j^2k + 18a^4c^4f^2g^2h \\
& \quad \cdot ^2m + 18a^4c^4e^2g^2j^2l + 18a^4c^4e^2f^2k^2l - 18a^4c^4d^2g^2j \\
& \quad \cdot ^2m - 18a^4c^4d^2f^2k^2m + 18a^3c^5d^2f^2k^2m + 3a^4b^2c^2h^4k \\
& \quad \cdot m - 3a^3b^3c^2g^4l^2m + 18a^4c^4e^2f^2j^2l^2 + 18a^4c^4d^2h^2j^2 \\
& \quad \cdot k + 18a^4c^4d^2f^2k^2l^2 + 18a^4c^4d^2e^2k^2m^2 - 18a^3c^5e^2f^2j \\
& \quad \cdot l + 12a^5b^2c^2g^2k^2m^3 - 9a^5b^2c^2h^3j^2m^2 - 9a^5b^2c^2f^2l^3m \\
& \quad + 3a^5b^2c^2h^2k^3l + 3a^4b^3c^2h^3j^2m^2 + 3a^4b^3c^2f^2l^3m - \\
& \quad 18a^4c^4e^2f^2h^2m^2 + 18a^3c^5e^2f^2h^2m + 15a^5b^2c^2e^2l^2m^3 - \\
& \quad 15a^4b^3c^2e^2l^2m^3 - 9a^5b^2c^2g^2k^2l^3 - 9a^4b^3c^3g^3j^2m - 3a \\
& \quad \cdot a^5b^2c^2g^2k^2l^3 + 3a^5b^2c^2h^2j^3l^2 + 3a^4b^3c^2g^2k^2l^3 - 3a^3 \\
& \quad \cdot b^4c^2g^3j^2m^2 + 36a^4c^4e^2f^2g^2m^2 + 36a^4c^4d^2f^2h^2m^2 + 18a^4 \\
& \quad \cdot c^4e^2g^2h^2k^2 - 18a^4c^4d^2g^2h^2l^2 - 18a^4c^4d^2f^2j^2k^2 + 18a^3 \\
& \quad \cdot c^5e^2g^2h^2k + 18a^3c^5e^2f^2g^2m - 18a^3c^5d^2g^2h^2l + 18a^3 \\
& \quad \cdot c^5d^2f^2j^2k + 18a^3c^5d^2f^2h^2m + 18a^3c^5d^2e^2j^2l - 12a^2 \\
& \quad \cdot b^2c^4e^2k^2m + 9a^4b^3c^2f^2j^3m^2 - 9a^4b^2c^2f^2j^4m - 6a^5b^2 \\
& \quad \cdot c^2f^2j^2m^3 + 6a^5b^2c^2f^2j^3m^3 - 6a^5b^2c^2f^2j^3m^2 - 6a^4b^3c \\
& \quad \cdot f^2j^2m^3 + 6a^4b^3c^3f^3j^2m^2 - 6a^4b^3c^3f^2j^3m + 6a^2b^3c^3f \\
& \quad \cdot f^4j^2m + 3a^3b^2c^3g^4j^2l + 3a^2b^5c^2f^3j^2m^2 - 3a^2b^3c^3f^4 \\
& \quad \cdot k^2l - 36a^3c^5d^2e^2j^2k^2 - 18a^4c^4d^2f^2g^2m^2 + 18a^3c^5e^2f^2g \\
& \quad \cdot ^2l + 18a^3c^5d^2f^2g^2m + 18a^3c^5d^2e^2j^2k + 18a^3b^4c^2d^2k \\
& \quad \cdot m^3 + 15a^3b^2c^4e^3j^2m + 12a^5b^2c^2d^2k^2m^3 - 9a^5b^2c^2f^2j^2 \\
& \quad \cdot l^3 - 9a^4b^3c^3e^2k^3l + 3a^5b^2c^2e^2k^3l^2 + 3a^4b^3c^2f^2j^2l^3 \\
& \quad + 3a^4b^3c^3g^2j^3k - 3a^3b^4c^2f^2j^2l^3 + 3a^3b^2c^3g^4h^2m + \\
& \quad 3a^2b^5c^2e^3j^2m - 36a^3c^5d^2f^2h^2k^2 - 21a^3b^3c^4d^3j^2m^2 - 2 \\
& \quad \cdot 1a^2b^5c^2d^3j^2m^2 + 18a^3c^5e^2f^2h^2j^2 - 18a^3c^5e^2f^2h^2j + 1 \\
& \quad \cdot 8a^3c^5d^2f^2h^2k + 18a^2b^4c^3d^3j^2m + 15a^4b^3c^3d^2k^2l^3 - 9 \\
& \quad \cdot a^5b^2c^2d^2k^2l^3 - 9a^4b^3c^3g^3h^2l^2 - 9a^4b^3c^3f^2j^2k^3 + 3a^4 \\
& \quad \cdot b^3c^2d^2k^2l^3 + 3a^2b^5c^2d^2k^2l^3 - 18a^3c^5d^2e^2g^2l^2 + 18a^3 \\
& \quad \cdot c^5d^2e^2h^2k^2 + 18a^3b^4c^2e^2h^2m^3 - 18a^2c^6d^2e^2h^2k + 18a^2 \\
& \quad \cdot c^6d^2e^2g^2l + 18a^2c^6d^2e^2f^2m + 15a^5b^2c^2e^2h^2m^3 - 15a^4 \\
& \quad \cdot b^3c^2e^2h^2m^3 - 9a^4b^3c^3f^2g^3m^2 - 9a^3b^4c^4f^3h^2l + 3a^4b^2 \\
& \quad \cdot c^2e^2j^2k^4 + 3a^4b^3c^3g^2h^3k^2 + 3a^3b^4c^4f^2g^3m + 36a^3c^5 \\
& \quad \cdot d^2e^2f^2l^2 + 18a^3c^5d^2f^2g^2j^2 + 18a^2c^6d^2f^2g^2j + 18a^2c^6 \\
& \quad \cdot d^2e^2f^2l - 9a^3b^2c^3e^2h^4l - 9a^3b^3c^4d^2j^3k + 6a^4b^3c^3e \\
& \quad \cdot ^2h^2l^3 - 6a^4b^3c^3e^2h^3l^2 + 6a^3b^4c^4e^3h^2l^2 - 6a^3b^3c^4e^2 \\
& \quad \cdot h^3l + 3a^4b^2c^2f^2h^2k^4 + 3a^4b^3c^3d^2j^3k^2 - 3a^3b^4c^2e^2h^2l \\
& \quad \cdot ^3 + 3a^2b^5c^2e^2h^2l^3 + 3a^2b^2c^4f^4h^2k + 3a^2b^2c^4f^4g^2l \\
& \quad + 3a^2b^5c^2e^3h^2l^2 - 3a^2b^4c^3e^3h^2l - 21a^4b^3c^3d^2g^2m^3 - \\
& \quad 21a^2b^5c^2d^2g^2m^3 + 18a^3b^4c^2d^2g^2m^3 + 18a^2c^6d^2e^2f^2k + \\
& \quad 18a^2b^4c^3d^3h^2l + 15a^3b^3c^4e^3f^2m^2 + 15a^2b^3c^5d^3h^2l - \\
& \quad 15a^2b^3c^4d^3h^2l - 9a^4b^3c^3e^2h^2k^3 - 9a^3b^4c^4f^3g^2k^2 - 9a \\
& \quad \cdot a^2b^3c^5e^3f^2m + 3a^3b^3c^4f^2h^3j + 3a^2b^5c^2e^3f^2m^2 + 3a^2b \\
& \quad \cdot ^3c^4e^3f^2m + 18a^2b^4c^3d^3f^2m^2 + 15a^4b^3c^3d^2g^2l^3 + 12a^2b \\
& \quad \cdot ^2c^5d^3f^2m - 9a^3b^3c^4e^2h^2j^3 - 9a^3b^3c^4e^2f^3l^2 - 9a^2b^3 \\
& \quad \cdot c^5e^3g^2k + 3a^3b^3c^4f^2g^3j^2 + 3a^2b^5c^2d^2g^2l^3 + 3a^2b^3c^5 \\
& \quad \cdot e^2f^3l - 3a^2b^4c^3e^3g^2k^2 + 3a^2b^3c^4e^3g^2k + 18a^2c^6d^2 \\
& \quad \cdot e^2g^2h^2 - 18a^2c^6d^2e^2g^2h - 12a^4b^2c^2d^2f^2l^4 - 9a^2b^2c^4 \\
& \quad \cdot d^2g^4k + 9a^2b^3c^4d^2g^3k + 6a^3b^3c^2d^2g^2k^4 + 6a^3b^3c^4d^2g \\
& \quad \cdot k^3 - 6a^3b^3c^4d^2g^3k^2 + 6a^2b^3c^5d^3g^2k^2 - 6a^2b^3c^5d^2g^3 \\
& \quad \cdot k - 6a^2b^3c^4d^3g^2k^2 - 6a^2b^2c^5d^3g^2k - 3a^3b^3c^2e^2f^2k^4 + \\
& \quad 3a^3b^2c^3e^2g^2j^4 + 3a^3b^2c^3d^2h^2j^4 + 3a^2b^5c^2d^2g^2k^3 + 15 \\
& \quad \cdot a^2b^3c^5d^3e^2l^2 - 15a^2b^3c^4d^3e^2l^2 - 9a^3b^3c^4d^2g^2j^3 - 9a \\
& \quad \cdot ^2b^3c^5e^3f^2j^2 - 3a^2b^4c^3d^2g^2j^3 + 3a^2b^3c^4e^3f^2j^2 - 3a^2b \\
& \quad \cdot ^2c^5e^3f^2j + 12a^2b^2c^5d^3f^2j^2 - 9a^2b^3c^5d^2e^3k^2 + 3a^2b^3 \\
& \quad \cdot c^5e^2g^3h + 3a^2b^3c^4d^2e^3k^2 - 9a^2b^3c^5d^2g^2h^3 - 3a^2b^3c
\end{aligned}$$

$$\begin{aligned}
&^3d^*e^*j^4 + 3a^2*b^*c^5*e^*f^3*h^2 + 3a*b^3*c^4*d^2*g^*h^3 + 3a^2*b^2*c^4* \\
&d^*f^*h^4 - 9a^7*c^*k^2*l^2*m^2 - 6a^6*c^2*j^2*k^3*m - 3a^6*b^2*h^1^2*m^3 + \\
&3a^5*b^3*h^2*l^1*m^3 - 6a^6*c^2*g^2*k^m^3 - 6a^6*c^2*h^*k^3*l^2 + 6a^5*c^3* \\
&h^3*j^2*m + 6a^6*c^2*g^*k^2*l^3 - 6a^6*c^2*f^*k^3*m^2 - 6a^5*c^3*h^2*j^3 \\
&*l - 6a^5*c^3*g^3*j^*m^2 + 6a^5*c^3*f^2*k^3*m + 3a^5*b^3*g^*k^2*m^3 - 3a^4* \\
&b^4*g^2*k^m^3 + 12a^6*c^2*f^*j^2*m^3 + 12a^4*c^4*f^3*j^2*m + 3a^5*b^3*e \\
&*l^2*m^3 + 3a^3*b^5*e^2*l^1*m^3 - 6a^6*c^2*d^*k^2*m^3 - 6a^5*c^3*f^2*j^*l^3 \\
&+ 6a^5*c^3*d^2*k^m^3 - 6a^5*c^3*g^*j^3*k^2 + 6a^4*c^4*e^3*j^*m^2 - 3b^6*c \\
&^2*d^3*j^2*m - 3a^4*b^4*f^*j^2*m^3 + 3a^3*b^5*f^2*j^*m^3 + 6a^5*c^3*f^*j^2* \\
&k^3 + 6a^5*c^3*f^*h^3*m^2 - 6a^5*c^3*e^*j^3*l^2 + 6a^4*c^4*g^3*h^2*l - 6a \\
&^4*c^4*f^2*h^3*m + 6a^4*c^4*e^2*j^3*l + 6a^3*c^5*d^3*j^2*m - 3a^4*b^4*d^* \\
&k^2*m^3 - 3a^2*b^6*d^2*k^m^3 + 6a^5*c^3*e^2*h^m^3 - 6a^4*c^4*g^2*h^3*k - \\
&6a^4*c^4*f^3*h^1^2 + 12a^5*c^3*e^*h^2*l^3 + 12a^3*c^5*e^3*h^2*l - 3b^6*c \\
&^2*d^3*h^1^2 + 3b^5*c^3*d^3*h^2*l - 3a^5*b^2*c^*j^4*m^2 + 3a^3*b^5*e^*h^2 \\
&*m^3 - 3a^2*b^6*e^2*h^m^3 + 6a^5*c^3*d^*g^2*m^3 - 6a^4*c^4*e^2*h^*k^3 - 6* \\
&a^4*c^4*f^*h^3*j^2 + 6a^4*c^4*e^*g^3*l^2 + 6a^3*c^5*f^3*g^2*k - 6a^3*c^5*e \\
&^2*g^3*l + 6a^3*c^5*d^3*h^1^2 - 3b^6*c^2*d^3*f^*m^2 - 3b^4*c^4*d^3*f^2*m \\
&+ 6a^4*c^4*d^2*g^*l^3 + 6a^4*c^4*e^*h^2*j^3 - 6a^4*c^4*d^*h^3*k^2 - 6a^3*c \\
&^5*f^2*g^3*j - 6a^3*c^5*e^3*g^*k^2 + 6a^3*c^5*d^3*f^*m^2 + 6a^3*c^5*d^2*h^ \\
&3*k - 6a^2*c^6*d^3*f^2*m + 4a^5*b^2*c^*h^3*m^3 + 3b^5*c^3*d^3*g^*k^2 - 3b \\
&^4*c^4*d^3*g^2*k - 3a^2*b^6*d^*g^2*m^3 + a^5*b^c^2*j^3*k^3 + 12a^4*c^4*d^*g \\
&^2*k^3 + 12a^2*c^6*d^3*g^2*k + 6a^5*b^c^2*h^3*l^3 + 5a^5*b^c^2*g^3*m^3 - \\
&5a^4*b^3*c^*g^3*m^3 + 3b^5*c^3*d^3*e^*l^2 + 3b^3*c^5*d^3*e^2*l - 3a^5*b^ \\
&2*c^*h^2*l^4 + a^4*b^3*c^*h^3*l^3 + 12a^5*b^2*c^*f^2*m^4 - 6a^3*c^5*d^2*g^*j^ \\
&3 + 6a^3*c^5*d^*f^3*k^2 + 6a^3*b^4*c^*f^3*m^3 + 6a^2*c^6*e^3*f^2*j - 6a^2 \\
&*c^6*d^2*f^3*k - 3b^4*c^4*d^3*f^*j^2 + 3b^3*c^5*d^3*f^2*j - 3a^2*b^2*c^4* \\
&f^5*m - 7a^4*b^c^3*e^3*m^3 - 7a^2*b^5*c^*e^3*m^3 + 6a^4*b^c^3*g^3*k^3 - 6 \\
&a^3*c^5*e^*g^3*h^2 - 6a^2*c^6*d^3*f^*j^2 + 5a^4*b^c^3*f^3*l^3 + a^4*b^c^3* \\
&h^3*j^3 + a^2*b^5*c^*f^3*l^3 + 6a^3*c^5*d^*g^2*h^3 - 6a^2*c^6*e^2*f^3*h - 3 \\
&a^3*b^4*c^*e^2*l^4 - 3a*b^4*c^3*e^4*l^2 - 7a^3*b^c^4*d^3*l^3 - 7a*b^5*c^ \\
&2*d^3*l^3 + 6a^3*b^c^4*f^3*j^3 + 5a^3*b^c^4*e^3*k^3 + 3b^3*c^5*d^3*e^*h^2 \\
&- 3b^2*c^6*d^3*e^2*h + a*b^5*c^2*e^3*k^3 + 12a*b^2*c^5*d^4*k^2 - 6a^2*c \\
&^6*d^*f^3*g^2 + 6a*b^4*c^3*d^3*k^3 - 3a^4*b^2*c^2*d^*k^5 + a^3*b^c^4*g^3*h^ \\
&3 + 5a^2*b^c^5*d^3*j^3 - 5a*b^3*c^4*d^3*j^3 - 9a*c^7*d^2*e^2*f^2 + 6a^2 \\
&*b^c^5*e^3*h^3 - 3a*b^2*c^5*e^4*h^2 + a^2*b^c^5*f^3*g^3 + a*b^3*c^4*e^3*h^ \\
&3 + 4a*b^2*c^5*d^3*h^3 - 3a*b^2*c^5*d^2*g^4 - 6a^7*c^*j^1^3*m^2 + 6a^7*c \\
&*h^1^2*m^3 + 6a^6*c^2*j^*k^4*l + 6a^6*c^2*h^*k^4*m - 6a^5*c^3*h^4*k^m + 3* \\
&a^6*b^2*h^*k^m^4 + 3a^6*b^2*g^*l^1*m^4 - 3b^5*c^3*d^4*l^1*m - 6a^6*c^2*g^*j^1^4 \\
&- 6a^6*c^2*f^*k^1^4 - 6a^6*c^2*d^*l^4*m + 6a^5*c^3*h^*j^4*k + 6a^5*c^3*g^* \\
&j^4*l + 6a^5*c^3*f^*j^4*m - 6a^4*c^4*g^4*j^*l + 6a^3*c^5*e^4*k^m + 6a^5*b \\
&^3*f^*j^*m^4 - 6a^4*c^4*g^4*h^m + 3b^7*c^d^3*j^*m^2 - 3a^5*b^3*e^*k^m^4 - 3* \\
&a^5*b^3*d^*l^1*m^4 + 3b^4*c^4*d^4*j^*l - 3a^5*b^3*g^*h^m^4 - 6a^5*c^3*e^*j^*k^4 \\
&+ 6a^2*c^6*d^4*j^*l + 3b^4*c^4*d^4*h^m + 6a^6*c^2*e^*g^m^4 + 6a^6*c^2*d^* \\
&h^m^4 + 6a^6*b^c^*j^3*m^3 - 6a^5*c^3*f^*h^*k^4 + 6a^4*c^4*g^*h^4*j + 6a^4*c \\
&^4*f^*h^4*k + 6a^4*c^4*e^*h^4*l + 6a^4*c^4*d^*h^4*m - 6a^3*c^5*f^4*h^*k - 6* \\
&a^3*c^5*f^4*g^*l + 6a^2*c^6*d^4*h^m + 3a^5*b^c^2*j^5*m + a^6*b^c^*k^3*l^3 + \\
&3a^4*b^4*e^*g^m^4 + 3a^4*b^4*d^*h^m^4 + 6b^3*c^5*d^4*g^*k - 3b^3*c^5*d^4* \\
&h^*j - 3b^3*c^5*d^4*f^*l - 3b^3*c^5*d^4*e^*m + 3a*b^7*d^2*g^*m^3 + 6a^5*c^3 \\
&*d^*f^1^4 - 6a^4*c^4*e^*g^*j^4 - 6a^4*c^4*d^*h^*j^4 + 6a^3*c^5*e^*g^4*j + 6a^ \\
&3*c^5*d^*g^4*k - 6a^2*c^6*e^4*g^*j - 6a^2*c^6*e^4*f^*k - 6a^2*c^6*d^*e^4*m + \\
&3a^4*b^c^3*h^5*l + 6a^3*c^5*f^*g^4*h - 3a^3*b^5*d^*e^m^4 + 3b^2*c^6*d^4* \\
&e^*j + 3a^5*b^c^2*g^*k^5 + 3a^3*b^c^4*g^5*k + 8a*b^6*c^*d^3*m^3 + 3b^2*c^6 \\
&*d^4*f^*h - 3a^5*b^2*c^*e^1^5 - 3a*b^2*c^5*e^5*l - 6a^3*c^5*d^*f^*h^4 + 6a^ \\
&2*c^6*e^*f^4*g + 6a^2*c^6*d^*f^4*h + 3a^4*b^c^3*f^*j^5 + 3a^2*b^c^5*f^5*j + \\
&6a*c^7*d^3*e^2*h - 6a*c^7*d^2*e^3*g + 3a^3*b^c^4*e^*h^5 + 6a*b^c^6*d^3* \\
&g^3 + 3a^2*b^c^5*d^*g^5 + a*b^c^6*e^3*f^3 - 9a^6*c^2*j^2*k^2*l^2 - 9a^6*c \\
&^2*h^2*k^2*m^2 - 9a^6*c^2*g^2*l^2*m^2 - 18a^5*c^3*f^2*j^2*m^2 - 9a^5*c^3 \\
&*h^2*j^2*k^2 - 9a^5*c^3*g^2*j^2*l^2 - 9a^5*c^3*f^2*k^2*l^2 - 9a^5*c^3*e^ \\
&2*k^2*m^2 - 9a^5*c^3*d^2*l^2*m^2 - 9a^5*c^3*g^2*h^2*m^2 - 9a^4*c^4*e^2*j
\end{aligned}$$

$$\begin{aligned}
& ^2k^2 - 9a^4c^4d^2j^2l^2 - 18a^4c^4e^2h^2l^2 - 9a^4c^4g^2h^2 \\
& *j^2 - 9a^4c^4f^2h^2k^2 - 9a^4c^4f^2g^2l^2 - 9a^4c^4e^2g^2m^2 \\
& - 9a^4c^4d^2h^2m^2 - 18a^3c^5d^2g^2k^2 - 9a^3c^5e^2g^2j^2 \\
& - 9a^3c^5e^2f^2k^2 - 9a^3c^5d^2h^2j^2 - 9a^3c^5d^2f^2l^2 - 9 \\
& *a^3c^5d^2e^2m^2 - 3a^4b^2c^2h^4l^2 - 18a^4b^2c^2f^3m^3 + 12a \\
& a^3b^2c^3f^4m^2 - 9a^3c^5f^2g^2h^2 + 4a^4b^2c^2g^3l^3 - 3a^2 \\
& *b^4c^2f^4m^2 + 14a^3b^3c^2e^3m^3 - 5a^3b^3c^2f^3l^3 - 3a^4b \\
& ^2c^2g^2k^4 - 3a^3b^2c^3g^4k^2 + a^3b^3c^2g^3k^3 - 20a^2b^4c \\
& ^2d^3m^3 - 18a^3b^2c^3e^3l^3 + 16a^3b^2c^3d^3m^3 + 12a^4b^2c \\
& ^2e^2l^4 + 12a^2b^2c^4e^4l^2 - 9a^2c^6d^2e^2j^2 + 6a^2b^4c^2 \\
& *e^3l^3 + 4a^3b^2c^3f^3k^3 + 14a^2b^3c^3d^3l^3 - 9a^2c^6e^2f \\
& ^2g^2 - 9a^2c^6d^2f^2h^2 - 5a^2b^3c^3e^3k^3 - 3a^3b^2c^3f^2j \\
& j^4 - 3a^2b^2c^4f^4j^2 + a^2b^3c^3f^3j^3 - 18a^2b^2c^4d^3k^3 \\
& + 12a^3b^2c^3d^2k^4 + 4a^2b^2c^4e^3j^3 - 3a^2b^4c^2d^2k^4 - \\
& 3a^2b^2c^4e^2h^4 + 6a^7c^*k^*l^4*m - 3a^7b^*k^*l^4*m^4 - 6a^7c^*h^*k^*m^4 \\
& - 6a^7c^*g^*l^4*m^4 + 3a^6b^*c^*h^*l^5 - 6a^*c^7*d^4*e^*j - 6a^*c^7*d^4*f^*h - \\
& 3b^*c^7*d^4*e^*f + 6a^*c^7*d^4*e^4*f + 3a^*b^*c^6*e^5*h - a^5b^2c^*j^3l^3 - a \\
& ^3b^4c^*g^3l^3 - a^*b^4c^3e^3j^3 - a^*b^2c^5e^3g^3 + 3a^7b^*j^*m^5 + \\
& 6a^7c^*f^*m^5 + 6a^*c^7*d^5*k + 3b^*c^7*d^5*g - 3a^6c^2j^4m^2 - 3a^6b \\
& ^2j^2m^4 + 2a^6c^2j^3l^3 + a^5b^3j^3m^3 - 2a^6c^2h^3m^3 - 3a^6 \\
& c^2h^2l^4 - 3a^5c^3h^4l^2 - a^*b^6*c^*e^3l^3 + 20a^5c^3f^3m^3 - \\
& 15a^6c^2f^2m^4 - 15a^4c^4f^4m^2 + 2a^5c^3h^3k^3 - 2a^5c^3g^3 \\
& *l^3 + a^3b^5g^3m^3 - 3a^5c^3g^2k^4 - 3a^4c^4g^4k^2 - 3a^4b^4* \\
& f^2m^4 + 20a^4c^4e^3l^3 - 15a^5c^3e^2l^4 - 15a^3c^5e^4l^2 + 2* \\
& a^4c^4g^3j^3 - 2a^4c^4f^3k^3 - 2a^4c^4d^3m^3 - 3b^4c^4d^4k^2 \\
& - 3a^4c^4f^2j^4 - 3a^3c^5f^4j^2 + 20a^3c^5d^3k^3 - 15a^4c^4* \\
& d^2k^4 - 15a^2c^6d^4k^2 - 2a^3c^5e^3j^3 + b^5c^3d^3j^3 + 2a^3* \\
& c^5f^3h^3 - 3a^3c^5e^2h^4 - 3a^2c^6e^4h^2 - 3b^2c^6d^4g^2 + 2 \\
& *a^2c^6e^3g^3 - 2a^2c^6d^3h^3 + b^3c^5d^3g^3 - 3a^2c^6d^2g^4 \\
& - a^4b^2c^2h^3k^3 - a^3b^2c^3g^3j^3 - a^2b^4c^2f^3k^3 - a^2b^2 \\
& *c^4f^3h^3 + 2a^7c^*k^3*m^3 + a^7b^*l^3*m^3 - 3a^7c^*j^2*m^4 + 6a^3c^ \\
& 5f^5m - 3a^6b^2f^*m^5 + 6a^6c^2e^*l^5 + 6a^2c^6e^5*l + b^7c^*d^3*l \\
& ^3 + a^*b^7e^3m^3 - 3b^2c^6d^5k + 6a^5c^3d^*k^5 - 3a^*c^7*d^4*g^2 + \\
& 2a^*c^7*d^3*f^3 + b^*c^7*d^3*e^3 - a^6b^2k^3m^3 - a^4b^4h^3m^3 - a^2b \\
& ^6f^3m^3 - b^6c^2d^3k^3 - b^4c^4d^3h^3 - b^2c^6d^3f^3 - b^8d^3* \\
& m^3 - a^6c^2k^6 - a^5c^3j^6 - a^4c^4h^6 - a^3c^5g^6 - a^2c^6f^6 - \\
& a^7c^*l^6 - a^*c^7e^6 - a^8m^6 - c^8d^6, z, k1)*(root(34992a^4b^2c^8* \\
& z^6 - 8748a^3b^4c^7z^6 + 729a^2b^6c^6z^6 - 46656a^5c^9z^6 + 3499 \\
& 2a^4b^3c^6mz^5 - 8748a^3b^5c^5mz^5 + 729a^2b^7c^4mz^5 - 3499 \\
& 2a^4b^2c^7jz^5 + 8748a^3b^4c^6jz^5 - 729a^2b^6c^5jz^5 - 4665 \\
& 6a^5b^*c^7*mz^5 + 46656a^5c^8jz^5 + 34992a^5b^*c^6*j*mz^4 - 11664a^ \\
& ^5b^*c^6*k^*l*z^4 + 3888a^4b^*c^7*f^*jz^4 + 3888a^4b^*c^7*e^*kz^4 + 3888a^ \\
& ^4b^*c^7*d^*l*z^4 + 3888a^4b^*c^7*g^*hz^4 + 3888a^3b^*c^8*d^*e*z^4 + 243a^* \\
& b^5c^6d^*e*z^4 - 25272a^4b^3c^5j*mz^4 + 9720a^4b^3c^5k^*l*z^4 + 60 \\
& 75a^3b^5c^4j*mz^4 - 2673a^3b^5c^4k^*l*z^4 - 486a^2b^7c^3j*mz^4 \\
& + 243a^2b^7c^3k^*l*z^4 - 7776a^4b^2c^6h^*kz^4 - 7776a^4b^2c^6g^* \\
& l*z^4 - 7776a^4b^2c^6f^*mz^4 + 2430a^3b^4c^5h^*kz^4 + 2430a^3b^4* \\
& c^5g^*l*z^4 + 2430a^3b^4c^5f^*mz^4 - 243a^2b^6c^4h^*kz^4 - 243a^2* \\
& b^6c^4g^*l*z^4 - 243a^2b^6c^4f^*mz^4 - 1944a^3b^3c^6f^*jz^4 - 1944 \\
& *a^3b^3c^6e^*kz^4 - 1944a^3b^3c^6d^*l*z^4 + 243a^2b^5c^5f^*jz^4 + \\
& 243a^2b^5c^5e^*kz^4 + 243a^2b^5c^5d^*l*z^4 - 1944a^3b^3c^6g^*hz^ \\
& ^4 + 243a^2b^5c^5g^*hz^4 + 3888a^3b^2c^7e^*gz^4 + 3888a^3b^2c^7* \\
& d^*hz^4 - 486a^2b^4c^6e^*gz^4 - 486a^2b^4c^6d^*hz^4 - 1944a^2b^3* \\
& c^7d^*e*z^4 + 7776a^5c^7h^*kz^4 + 7776a^5c^7g^*l*z^4 + 7776a^5c^7f^* \\
& m*z^4 - 7776a^4c^8e^*gz^4 - 7776a^4c^8d^*hz^4 - 13608a^5b^2c^5m^2 \\
& *z^4 + 11421a^4b^4c^4m^2z^4 - 2916a^3b^6c^3m^2z^4 + 243a^2b^8c^ \\
& ^2m^2z^4 + 13608a^4b^2c^6j^2z^4 - 3159a^3b^4c^5j^2z^4 + 243a^2 \\
& *b^6c^4j^2z^4 + 1944a^3b^2c^7f^2z^4 - 243a^2b^4c^6f^2z^4 - 388 \\
& 8a^6c^6m^2z^4 - 19440a^5c^7j^2z^4 - 3888a^4c^8f^2z^4 + 3078a^4
\end{aligned}$$

$$\begin{aligned}
& *b^4*c^3*k^1*m*z^3 - 2592*a^5*b^2*c^4*k^1*m*z^3 - 891*a^3*b^6*c^2*k^1*m*z^3 \\
& - 4536*a^4*b^3*c^4*j*k^1*z^3 + 1053*a^3*b^5*c^3*j*k^1*z^3 - 81*a^2*b^7*c^2 \\
& *j*k^1*z^3 - 2592*a^4*b^3*c^4*h*k^1*m*z^3 - 2592*a^4*b^3*c^4*g^1*m*z^3 + 810* \\
& a^3*b^5*c^3*h*k^1*m*z^3 + 810*a^3*b^5*c^3*g^1*m*z^3 - 81*a^2*b^7*c^2*h*k^1*m*z^3 \\
& - 81*a^2*b^7*c^2*g^1*m*z^3 + 7776*a^4*b^2*c^5*f*j*m*z^3 + 3888*a^4*b^2*c^5 \\
& *h*j*k^1*z^3 + 3888*a^4*b^2*c^5*g*j^1*z^3 - 3888*a^4*b^2*c^5*f*k^1*z^3 - 291 \\
& 6*a^3*b^4*c^4*f*j*m*z^3 + 1458*a^3*b^4*c^4*f*k^1*z^3 - 972*a^3*b^4*c^4*h*j* \\
& k^1*z^3 - 972*a^3*b^4*c^4*g*j^1*z^3 - 486*a^3*b^4*c^4*e*k^1*m*z^3 - 486*a^3*b^4 \\
& *c^4*d^1*m*z^3 + 324*a^2*b^6*c^3*f*j*m*z^3 - 162*a^2*b^6*c^3*f*k^1*z^3 + 81 \\
& *a^2*b^6*c^3*h*j*k^1*z^3 + 81*a^2*b^6*c^3*g*j^1*z^3 + 81*a^2*b^6*c^3*e*k^1*m*z^3 \\
& + 81*a^2*b^6*c^3*d^1*m*z^3 - 486*a^3*b^4*c^4*g*h*m*z^3 + 81*a^2*b^6*c^3*g \\
& *h*m*z^3 + 648*a^3*b^3*c^5*e*j*k^1*z^3 + 648*a^3*b^3*c^5*d*j^1*z^3 - 81*a^2*b^5 \\
& *c^4*e*j*k^1*z^3 - 81*a^2*b^5*c^4*d*j^1*z^3 + 2592*a^3*b^3*c^5*e*g^1*m*z^3 + \\
& 2592*a^3*b^3*c^5*d*h^1*m*z^3 - 1296*a^3*b^3*c^5*f*h^1*k^1*z^3 - 1296*a^3*b^3*c^5* \\
& f*g^1*z^3 - 1296*a^3*b^3*c^5*e*h^1*z^3 + 648*a^3*b^3*c^5*g*h^1*j^1*z^3 - 324*a^2 \\
& *b^5*c^4*e*g^1*m*z^3 - 324*a^2*b^5*c^4*d*h^1*m*z^3 + 162*a^2*b^5*c^4*f*h^1*k^1*z^3 \\
& + 162*a^2*b^5*c^4*f*g^1*z^3 + 162*a^2*b^5*c^4*e*h^1*z^3 - 81*a^2*b^5*c^4*g \\
& *h^1*j^1*z^3 + 5184*a^3*b^2*c^6*d*e^1*m*z^3 - 2592*a^3*b^2*c^6*e*g^1*j^1*z^3 - 2592*a \\
& ^3*b^2*c^6*d*h^1*j^1*z^3 - 2106*a^2*b^4*c^5*d*e^1*m*z^3 + 1296*a^3*b^2*c^6*e*f^1*k^1 \\
& *z^3 + 1296*a^3*b^2*c^6*d*g^1*k^1*z^3 + 1296*a^3*b^2*c^6*d*f^1*z^3 + 324*a^2*b^4 \\
& *c^5*e*g^1*j^1*z^3 + 324*a^2*b^4*c^5*d*h^1*j^1*z^3 - 162*a^2*b^4*c^5*e*f^1*k^1*z^3 - 16 \\
& 2*a^2*b^4*c^5*d*g^1*k^1*z^3 - 162*a^2*b^4*c^5*d*f^1*z^3 + 1296*a^3*b^2*c^6*f*g^1 \\
& *h^1*z^3 - 162*a^2*b^4*c^5*f*g^1*h^1*z^3 + 1944*a^2*b^3*c^6*d*e^1*j^1*z^3 - 1296*a^2*b \\
& ^2*c^7*d*e^1*f^1*z^3 + 81*a^2*b^8*c^k^1*m*z^3 + 6480*a^5*b*c^5*j*k^1*z^3 + 2592 \\
& *a^5*b*c^5*h*k^1*m*z^3 + 2592*a^5*b*c^5*g^1*m*z^3 - 1296*a^4*b*c^6*e*j*k^1*z^3 \\
& - 1296*a^4*b*c^6*d*j^1*z^3 - 5184*a^4*b*c^6*e*g^1*m*z^3 - 5184*a^4*b*c^6*d*h^1 \\
& *m*z^3 + 2592*a^4*b*c^6*f*h^1*k^1*z^3 + 2592*a^4*b*c^6*f*g^1*z^3 + 2592*a^4*b*c^6 \\
& *e*h^1*z^3 - 1296*a^4*b*c^6*g*h^1*j^1*z^3 + 243*a*b^6*c^4*d*e^1*m*z^3 - 3888*a^3 \\
& *b*c^7*d*e^1*j^1*z^3 - 243*a*b^5*c^5*d*e^1*j^1*z^3 + 162*a*b^4*c^6*d*e^1*f^1*z^3 - 2592 \\
& *a^6*c^5*k^1*m*z^3 - 5184*a^5*c^6*h^1*j^1*k^1*z^3 - 5184*a^5*c^6*g^1*j^1*z^3 - 5184 \\
& *a^5*c^6*f^1*j^1*m*z^3 + 2592*a^5*c^6*f^1*k^1*z^3 + 2592*a^5*c^6*e^1*k^1*m*z^3 + 2592 \\
& *a^5*c^6*d^1*m*z^3 + 2592*a^5*c^6*g^1*h^1*m*z^3 + 5184*a^4*c^7*e^1*g^1*j^1*z^3 + 5184 \\
& *a^4*c^7*d^1*h^1*j^1*z^3 - 2592*a^4*c^7*e^1*f^1*k^1*z^3 - 2592*a^4*c^7*d^1*g^1*k^1*z^3 - 2592 \\
& *a^4*c^7*d^1*f^1*z^3 - 2592*a^4*c^7*d^1*e^1*m*z^3 - 2592*a^4*c^7*f^1*g^1*h^1*z^3 + 2592 \\
& *a^3*c^8*d^1*e^1*f^1*z^3 + 6480*a^5*b^2*c^4*j^1*m^2*z^3 + 6480*a^4*b^3*c^4*j^2*m^2*z^3 \\
& - 5022*a^4*b^4*c^3*j^1*m^2*z^3 - 1296*a^3*b^5*c^3*j^2*m^2*z^3 + 1134*a^3*b^6*c^2 \\
& *j^1*m^2*z^3 + 81*a^2*b^7*c^2*j^2*m^2*z^3 + 2592*a^4*b^3*c^4*h^1*l^2*z^3 - 194 \\
& 4*a^4*b^2*c^5*h^2*l^1*z^3 - 810*a^3*b^5*c^3*h^1*l^2*z^3 + 729*a^3*b^4*c^4*h^2*l^1 \\
& *z^3 + 81*a^2*b^7*c^2*h^1*l^2*z^3 - 81*a^2*b^6*c^3*h^2*l^1*z^3 - 5184*a^4*b^3*c^4 \\
& *f^1*m^2*z^3 + 1620*a^3*b^5*c^3*f^1*m^2*z^3 + 1296*a^3*b^3*c^5*f^2*m^2*z^3 - 16 \\
& 2*a^2*b^7*c^2*f^1*m^2*z^3 - 162*a^2*b^5*c^4*f^2*m^2*z^3 - 1944*a^4*b^2*c^5*g^1*k^1 \\
& *z^3 + 729*a^3*b^4*c^4*g^1*k^2*z^3 - 648*a^3*b^3*c^5*g^2*k^1*z^3 - 81*a^2*b^6*c^3 \\
& *g^1*k^2*z^3 + 81*a^2*b^5*c^4*g^2*k^1*z^3 - 1944*a^4*b^2*c^5*e^1*l^2*z^3 + 729 \\
& *a^3*b^4*c^4*e^1*l^2*z^3 + 648*a^3*b^2*c^6*e^2*l^1*z^3 - 81*a^2*b^6*c^3*e^1*l^2*z^3 \\
& - 81*a^2*b^4*c^5*e^2*l^1*z^3 + 1296*a^3*b^3*c^5*f^1*j^2*z^3 - 1296*a^3*b^2*c^6 \\
& *f^2*j^1*z^3 - 162*a^2*b^5*c^4*f^1*j^2*z^3 + 162*a^2*b^4*c^5*f^2*j^1*z^3 - 648* \\
& a^3*b^3*c^5*d^1*k^2*z^3 + 81*a^2*b^5*c^4*d^1*k^2*z^3 + 648*a^3*b^2*c^6*e^1*h^2*z^3 \\
& - 81*a^2*b^4*c^5*e^1*h^2*z^3 - 648*a^2*b^2*c^7*d^2*g^1*z^3 - 10368*a^5*b*c^5*j^2 \\
& *m^2*z^3 - 81*a^2*b^8*c^j^1*m^2*z^3 - 2592*a^5*b*c^5*h^1*l^2*z^3 + 5184*a^5*b*c^5 \\
& *f^1*m^2*z^3 - 2592*a^4*b*c^6*f^2*m^2*z^3 + 1296*a^4*b*c^6*g^2*k^1*z^3 - 2592* \\
& a^4*b*c^6*f^1*j^2*z^3 + 1296*a^4*b*c^6*d^1*k^2*z^3 + 81*a*b^4*c^6*d^2*g^1*z^3 + 2 \\
& 592*a^6*c^5*j^1*m^2*z^3 + 1296*a^5*c^6*h^2*l^1*z^3 + 1296*a^5*c^6*g^1*k^2*z^3 + 1 \\
& 296*a^5*c^6*e^1*l^2*z^3 - 1296*a^4*c^7*e^2*l^1*z^3 + 2592*a^4*c^7*f^2*j^1*z^3 - 2 \\
& 592*a^6*b*c^4*m^3*z^3 - 324*a^3*b^7*c^m^3*z^3 - 27*a^2*b^8*c^1^3*z^3 - 1296 \\
& *a^4*c^7*e^1*h^2*z^3 - 864*a^5*b*c^5*k^3*z^3 + 1296*a^3*c^8*d^2*g^1*z^3 + 432*a^4 \\
& *b*c^6*h^3*z^3 + 27*a*b^4*c^6*e^3*z^3 - 432*a^2*b*c^8*d^3*z^3 + 216*a*b^3*c^7 \\
& *d^3*z^3 + 1134*a^4*b^5*c^2*m^3*z^3 - 432*a^5*b^3*c^3*m^3*z^3 + 1512*a^5*b^2*c^4 \\
& *l^3*z^3 - 1107*a^4*b^4*c^3*l^3*z^3 + 297*a^3*b^6*c^2*l^3*z^3 + 864*a^4*b^3*c^4*k^3 \\
& *z^3 - 270*a^3*b^5*c^3*k^3*z^3 + 27*a^2*b^7*c^2*k^3*z^3 -
\end{aligned}$$

$$\begin{aligned}
& 2592a^4b^2c^5j^3z^3 + 486a^3b^4c^4j^3z^3 - 27a^2b^6c^3j^3z^3 \\
& - 216a^3b^3c^5h^3z^3 + 27a^2b^5c^4h^3z^3 + 216a^3b^2c^6g^3z^3 \\
& - 27a^2b^4c^5g^3z^3 - 216a^2b^2c^7e^3z^3 - 432a^6c^5l^3z^3 \\
& + 27a^2b^9m^3z^3 + 4320a^5c^6j^3z^3 - 432a^4c^7g^3z^3 + 432a^3c^8e^3z^3 \\
& - 27b^5c^6d^3z^3 + 81a^3b^6c^*j^*k^*l^*m^*z^2 - 1296a^5b^*c^4h^*j^*k^*m^*z^2 \\
& - 1296a^5b^*c^4g^*j^*l^*m^*z^2 + 1296a^5b^*c^4f^*k^*l^*m^*z^2 - 81a^2b^7c^*f^*k^*l^*m^*z^2 \\
& + 2592a^4b^*c^5e^*g^*j^*m^*z^2 + 2592a^4b^*c^5d^*h^*j^*m^*z^2 - 1296a^4b^*c^5f^*h^*j^*k^*z^2 \\
& - 1296a^4b^*c^5f^*g^*j^*l^*z^2 - 1296a^4b^*c^5e^*f^*k^*m^*z^2 - 1296a^4b^*c^5d^*f^*l^*m^*z^2 \\
& - 648a^4b^*c^5e^*h^*j^*l^*z^2 - 648a^4b^*c^5e^*g^*k^*l^*z^2 - 648a^4b^*c^5d^*h^*k^*l^*z^2 \\
& - 648a^4b^*c^5d^*g^*k^*m^*z^2 - 1296a^4b^*c^5f^*g^*h^*m^*z^2 - 162a^*b^6c^3d^*e^*j^*m^*z^2 \\
& + 81a^*b^6c^3d^*e^*k^*l^*z^2 + 1296a^3b^*c^6d^*e^*f^*m^*z^2 - 648a^3b^*c^6d^*f^*g^*k^*z^2 \\
& - 648a^3b^*c^6d^*e^*h^*k^*z^2 - 648a^3b^*c^6d^*e^*g^*l^*z^2 - 81a^*b^5c^4d^*e^*h^*k^*z^2 \\
& - 81a^*b^5c^4d^*e^*g^*l^*z^2 + 81a^*b^5c^4d^*e^*f^*m^*z^2 - 81a^*b^4c^5d^*e^*f^*j^*z^2 \\
& + 81a^*b^4c^5d^*e^*g^*h^*z^2 + 648a^5b^2c^3j^*k^*l^*m^*z^2 - 567a^4b^4c^2j^*k^*l^*m^*z^2 \\
& - 1944a^4b^3c^3f^*k^*l^*m^*z^2 + 729a^3b^5c^2f^*k^*l^*m^*z^2 + 648a^4b^3c^3h^*j^*k^*m^*z^2 \\
& + 648a^4b^3c^3g^*j^*l^*m^*z^2 - 81a^3b^5c^2h^*j^*k^*m^*z^2 - 81a^3b^5c^2g^*j^*l^*m^*z^2 \\
& + 1944a^4b^2c^4f^*j^*k^*l^*z^2 - 729a^3b^4c^3f^*j^*k^*l^*z^2 + 648a^4b^2c^4e^*j^*k^*m^*z^2 \\
& + 648a^4b^2c^4d^*j^*l^*m^*z^2 - 81a^3b^4c^3e^*j^*k^*m^*z^2 - 81a^3b^4c^3d^*j^*l^*m^*z^2 \\
& + 81a^2b^6c^2f^*j^*k^*l^*z^2 + 1296a^4b^2c^4f^*h^*k^*m^*z^2 + 1296a^4b^2c^4g^*h^*j^*m^*z^2 \\
& - 648a^3b^4c^3f^*h^*k^*m^*z^2 - 648a^3b^4c^3f^*g^*l^*m^*z^2 - 324a^4b^2c^4g^*h^*k^*l^*z^2 \\
& - 324a^4b^2c^4e^*h^*l^*m^*z^2 + 81a^3b^4c^3g^*h^*k^*l^*z^2 - 81a^3b^4c^3g^*h^*j^*m^*z^2 \\
& + 81a^2b^6c^2f^*h^*k^*m^*z^2 + 81a^2b^6c^2f^*g^*l^*m^*z^2 - 1296a^3b^3c^4e^*g^*j^*m^*z^2 \\
& - 1296a^3b^3c^4d^*h^*j^*m^*z^2 + 648a^3b^3c^4f^*h^*j^*k^*z^2 + 648a^3b^3c^4f^*g^*j^*l^*z^2 \\
& + 648a^3b^3c^4e^*f^*k^*m^*z^2 + 648a^3b^3c^4d^*f^*l^*m^*z^2 + 486a^3b^3c^4e^*g^*k^*l^*z^2 \\
& + 486a^3b^3c^4d^*h^*k^*l^*z^2 + 162a^3b^3c^4e^*h^*j^*l^*z^2 + 162a^3b^3c^4d^*g^*k^*m^*z^2 \\
& + 162a^2b^5c^3e^*g^*j^*m^*z^2 + 162a^2b^5c^3d^*h^*j^*m^*z^2 - 81a^2b^5c^3f^*h^*j^*k^*z^2 \\
& - 81a^2b^5c^3f^*g^*j^*l^*z^2 - 81a^2b^5c^3e^*g^*k^*l^*z^2 - 81a^2b^5c^3d^*h^*k^*l^*z^2 \\
& - 81a^2b^5c^3d^*f^*l^*m^*z^2 + 648a^3b^3c^4f^*g^*h^*m^*z^2 - 81a^2b^5c^3f^*g^*h^*m^*z^2 \\
& - 3240a^3b^2c^5d^*e^*j^*m^*z^2 + 1620a^3b^2c^5d^*e^*k^*l^*z^2 + 1377a^2b^4c^4d^*e^*j^*m^*z^2 \\
& - 648a^3b^2c^5e^*f^*j^*k^*z^2 - 648a^3b^2c^5d^*f^*j^*l^*z^2 - 648a^2b^4c^4d^*e^*k^*l^*z^2 \\
& - 324a^3b^2c^5d^*g^*j^*k^*z^2 + 81a^2b^4c^4e^*f^*j^*k^*z^2 + 81a^2b^4c^4d^*f^*j^*l^*z^2 \\
& + 972a^3b^2c^5e^*f^*h^*l^*z^2 - 648a^3b^2c^5f^*g^*h^*j^*z^2 - 324a^3b^2c^5e^*g^*h^*k^*z^2 \\
& - 324a^3b^2c^5d^*g^*h^*l^*z^2 - 162a^2b^4c^4e^*f^*h^*l^*z^2 + 81a^2b^4c^4f^*g^*h^*j^*z^2 \\
& + 81a^2b^4c^4e^*g^*h^*k^*z^2 + 81a^2b^4c^4d^*g^*h^*l^*z^2 - 648a^2b^3c^5d^*e^*f^*m^*z^2 \\
& + 486a^2b^3c^5d^*e^*h^*k^*z^2 + 486a^2b^3c^5d^*e^*g^*l^*z^2 + 162a^2b^3c^5d^*f^*g^*k^*z^2 \\
& + 648a^2b^2c^6d^*e^*f^*j^*z^2 - 324a^2b^2c^6d^*e^*g^*h^*z^2 - 1296a^6b^*c^3k^*l^*m^2z^2 \\
& - 81a^4b^5c^*k^*l^*m^2z^2 - 1296a^5b^*c^4j^2k^*l^*z^2 - 324a^5b^*c^4h^2l^*m^*z^2 \\
& + 324a^5b^*c^4h^*k^2l^*z^2 - 324a^5b^*c^4g^*k^2m^*z^2 + 972a^5b^*c^4h^*j^*l^2z^2 \\
& + 324a^5b^*c^4g^*k^*l^2z^2 - 324a^5b^*c^4e^*l^2m^*z^2 - 324a^4b^*c^5e^2l^*m^*z^2 \\
& - 1944a^5b^*c^4f^*j^*m^2z^2 + 1296a^5b^*c^4e^*k^*m^2z^2 + 1296a^5b^*c^4d^*l^*m^2z^2 \\
& + 648a^4b^*c^5f^2j^*m^*z^2 + 81a^2b^7c^*f^*j^*m^2z^2 + 1296a^5b^*c^4g^*h^*m^2z^2 \\
& - 324a^4b^*c^5g^2j^*k^*z^2 + 324a^4b^*c^5g^2h^*l^*z^2 + 972a^4b^*c^5f^*h^2l^*z^2 \\
& + 324a^4b^*c^5g^*h^2k^*z^2 - 324a^4b^*c^5e^*h^2m^*z^2 - 324a^4b^*c^5d^*j^*k^2z^2 \\
& - 324a^3b^*c^6d^2j^*k^*z^2 + 972a^4b^*c^5f^*g^*k^2z^2 + 972a^3b^*c^6d^2g^*m^*z^2 \\
& + 324a^4b^*c^5e^*h^*k^2z^2 + 324a^3b^*c^6d^2h^*l^*z^2 + 81a^*b^5c^4d^2g^*m^*z^2 \\
& + 972a^4b^*c^5e^*f^*l^2z^2 + 324a^4b^*c^5d^*g^*l^2z^2 - 324a^3b^*c^6e^2h^*j^*z^2 \\
& + 324a^3b^*c^6e^2g^*k^*z^2 - 324a^3b^*c^6e^2f^*l^*z^2 - 1296a^4b^*c^5d^*e^*m^2z^2 \\
& + 81a^*b^7c^2d^*e^*m^2z^2 - 324a^3b^*c^6d^*g^2j^*z^2 - 81a^*b^4c^5d^2g^*j^*z^2 \\
& + 81a^*b^4c^5d^2e^*l^*z^2 + 324a^3b^*c^6e^*g^2h^*z^2 + 81a^*b^4c^5d^*e^2k^*z^2 \\
& + 1296a^3b^*c^6d^*e^*j^2z^2 - 324a^3b^*c^6e^*f^*h^2z^2 + 324a^3b^*c^6d^*g^*h^2z^2 \\
& + 81a^*b^5c^4d^*e^*j^2z^2 - 324a^2b^*c^7d^2f^*g^*z^2 + 324a^2b^*c
\end{aligned}$$

$$\begin{aligned}
& ^7d^2e^h z^2 + 81a^3b^3c^6d^2f^g z^2 - 81a^3b^3c^6d^2e^h z^2 + 324a^2b^3c^7d^2e^2g z^2 - 81a^3b^3c^6d^2e^2g z^2 + 1296a^6c^4j^k l^m z^2 \\
& - 1296a^5c^5f^j k^l z^2 - 1296a^5c^5e^j k^m z^2 - 1296a^5c^5d^j l^m z^2 - 1296a^5c^5g^h j^m z^2 + 1296a^5c^5e^h l^m z^2 + 1296a^4c^6 \\
& *e^f j^k z^2 + 1296a^4c^6d^g j^k z^2 + 1296a^4c^6d^f j^l z^2 - 1296a^4c^6d^e k^l z^2 + 1296a^4c^6d^e j^m z^2 + 1296a^4c^6f^g h^j z^2 - \\
& 1296a^4c^6e^f h^l z^2 - 1296a^3c^7d^e f^j z^2 + 648a^5b^3c^2k^l m^2 z^2 + 648a^4b^3c^3j^2k^l z^2 + 486a^5b^2c^3h^l^2 m^2 z^2 - 81a^4 \\
& *b^4c^2h^l^2 m^2 z^2 + 81a^4b^3c^3h^2l^1 m^2 z^2 - 81a^3b^5c^2j^2k^l z^2 - 162a^4b^2c^4g^2k^m z^2 - 81a^4b^3c^3h^k^2l^1 z^2 + 81a^4b^3 \\
& *c^3g^k^2 m^2 z^2 - 567a^4b^3c^3h^j^l^2 z^2 + 486a^4b^2c^4h^2j^l z^2 - 81a^4b^3c^3g^k^l^2 z^2 + 81a^4b^3c^3e^l^2 m^2 z^2 + 81a^3b^5c^2 \\
& *h^j^l^2 z^2 - 81a^3b^4c^3h^2j^l z^2 + 81a^3b^3c^4e^2l^1 m^2 z^2 + 2430a^4b^3c^3f^j^m^2 z^2 - 2268a^4b^2c^4f^j^2 m^2 z^2 - 810a^3b^5c^2 \\
& *f^j^m^2 z^2 + 810a^3b^4c^3f^j^2 m^2 z^2 - 648a^4b^3c^3e^k^m^2 z^2 - 648a^4b^3c^3d^l^1 m^2 z^2 - 648a^4b^2c^4h^j^2 k^z^2 - 648a^4b^2c^4 \\
& *g^j^2 l^1 z^2 - 162a^3b^3c^4f^2j^m z^2 + 81a^3b^5c^2e^k^m^2 z^2 + 81a^3b^5c^2d^l^1 m^2 z^2 + 81a^3b^4c^3h^j^2 k^z^2 + 81a^3b^4c^3g^j^2 \\
& l^1 z^2 - 81a^2b^6c^2f^j^2 m^2 z^2 - 648a^4b^3c^3g^h^m^2 z^2 + 486a^4b^2c^4g^j^k^2 z^2 - 486a^4b^2c^4e^k^2 l^1 z^2 + 486a^3b^2c^5d^2 \\
& *k^m z^2 - 162a^4b^2c^4d^k^2 m^2 z^2 + 81a^3b^5c^2g^h^m^2 z^2 - 81a^3b^4c^3g^j^k^2 z^2 + 81a^3b^4c^3e^k^2 l^1 z^2 + 81a^3b^3c^4g^2j^k \\
& *z^2 - 81a^2b^4c^4d^2k^m z^2 + 486a^4b^2c^4e^j^l^2 z^2 - 486a^4b^2c^4d^k^l^2 z^2 - 162a^3b^2c^5e^2j^l z^2 - 81a^3b^4c^3e^j^l^2 z^2 \\
& + 81a^3b^4c^3d^k^l^2 z^2 - 81a^3b^3c^4g^2h^l z^2 - 1458a^4b^2c^4f^h^l^2 z^2 + 648a^3b^4c^3f^h^l^2 z^2 - 567a^3b^3c^4f^h^2 l^1 z^2 \\
& + 486a^3b^2c^5e^2h^m z^2 - 81a^3b^3c^4g^h^2 k^z^2 + 81a^3b^3c^4e^h^2 m^2 z^2 - 81a^2b^6c^2f^h^l^2 z^2 + 81a^2b^5c^3f^h^2 l^1 z^2 - \\
& 81a^2b^4c^4e^2h^m z^2 - 1296a^4b^2c^4e^g^m^2 z^2 - 1296a^4b^2c^4d^h^m^2 z^2 + 648a^3b^4c^3e^g^m^2 z^2 + 648a^3b^4c^3d^h^m^2 z^2 + \\
& 81a^3b^3c^4d^j^k^2 z^2 - 81a^2b^6c^2e^g^m^2 z^2 - 81a^2b^6c^2d^h^m^2 z^2 + 81a^2b^3c^5d^2j^k z^2 - 567a^3b^3c^4f^g^k^2 z^2 - 567 \\
& *a^2b^3c^5d^2g^m z^2 + 486a^3b^2c^5f^g^2 k^z^2 - 486a^3b^2c^5e^g^2 l^1 z^2 + 486a^3b^2c^5d^g^2 m^2 z^2 - 81a^3b^3c^4e^h^k^2 z^2 + 81a^2 \\
& *b^5c^3f^g^k^2 z^2 - 81a^2b^4c^4f^g^2 k^z^2 + 81a^2b^4c^4e^g^2 l^1 z^2 - 81a^2b^4c^4d^g^2 m^2 z^2 - 81a^2b^3c^5d^2h^l z^2 - 567a^3b^3 \\
& *c^4e^f^l^2 z^2 - 486a^3b^2c^5d^h^2 k^z^2 - 162a^3b^2c^5e^h^2 j^k z^2 - 81a^3b^3c^4d^g^l^2 z^2 + 81a^2b^5c^3e^f^l^2 z^2 + 81a^2b^4c^4 \\
& *d^h^2 k^z^2 + 81a^2b^3c^5e^2h^j^z^2 - 81a^2b^3c^5e^2g^k^z^2 + 81a^2b^3c^5e^2f^l^1 z^2 + 1944a^3b^3c^4d^e^m^2 z^2 - 729a^2b^5c^3 \\
& *d^e^m^2 z^2 + 648a^3b^2c^5e^g^j^2 z^2 + 648a^3b^2c^5d^h^j^2 z^2 - 81a^2b^4c^4e^g^j^2 z^2 - 81a^2b^4c^4d^h^j^2 z^2 + 486a^3b^2c^5 \\
& *d^f^k^2 z^2 + 486a^2b^2c^6d^2g^j^z^2 - 486a^2b^2c^6d^2e^l^1 z^2 - 162a^2b^2c^6d^2f^k^z^2 - 81a^2b^4c^4d^d^f^k^2 z^2 + 81a^2b^3c^5d^g^2 \\
& *j^z^2 - 486a^2b^2c^6d^2e^2k^z^2 - 81a^2b^3c^5e^g^2 h^z^2 - 648a^2b^3c^5d^e^j^2 z^2 - 162a^2b^2c^6e^2f^h^z^2 + 81a^2b^3c^5e^f^h^2 \\
& *z^2 - 81a^2b^3c^5d^g^h^2 z^2 - 162a^2b^2c^6d^f^g^2 z^2 - 189a^5b^3c^2l^3 m^2 z^2 + 162a^5b^2c^3k^3 m^2 z^2 - 27a^4b^4c^2k^3 m^2 z^2 \\
& - 702a^4b^3c^3j^3 m^2 z^2 - 81a^3b^6c^j^2 m^2 z^2 + 81a^3b^5c^2j^3 m^2 z^2 - 54a^5b^3c^2j^m^3 z^2 - 486a^5b^2c^3j^l^3 z^2 + 216a^4b^4 \\
& *c^2j^l^3 z^2 - 189a^4b^3c^3j^k^3 z^2 - 54a^4b^2c^4h^3 m^2 z^2 + 27a^3b^5c^2j^k^3 z^2 + 27a^3b^3c^4g^3 m^2 z^2 - 810a^4b^4c^2f^m^3 z^2 \\
& + 540a^5b^2c^3f^m^3 z^2 - 324a^3b^2c^5f^3 m^2 z^2 + 54a^2b^4c^4f^3 m^2 z^2 + 675a^4b^3c^3f^l^3 z^2 - 243a^3b^5c^2f^l^3 z^2 - 189a^2 \\
& *b^3c^5e^3 m^2 z^2 + 27a^3b^3c^4h^3 j^z^2 - 486a^4b^2c^4f^k^3 z^2 - 486a^2b^2c^6d^3 m^2 z^2 + 216a^3b^4c^3f^k^3 z^2 - 54a^3b^2c^5g^3 \\
& *j^z^2 - 27a^2b^6c^2f^k^3 z^2 - 270a^3b^3c^4f^j^3 z^2 - 54a^2b^3c^5f^3 j^z^2 + 27a^2b^5c^3f^j^3 z^2 + 162a^2b^2c^6e^3 j^z^2 + 162a^3 \\
& *b^2c^5f^h^3 z^2 - 27a^2b^4c^4f^h^3 z^2 + 27a^2b^3c^5f^g^3 z^2
\end{aligned}$$

$$\begin{aligned}
& + 81*a*b^2*c^7*d^2*e^2*z^2 - 648*a^6*c^4*h*l^2*m*z^2 + 648*a^5*c^5*g^2*k*m \\
& *z^2 - 648*a^5*c^5*h^2*j*l*z^2 + 1296*a^5*c^5*h*j^2*k*z^2 + 1296*a^5*c^5*g* \\
& j^2*l*z^2 + 1296*a^5*c^5*f*j^2*m*z^2 - 648*a^5*c^5*g*j*k^2*z^2 + 648*a^5*c^ \\
& 5*e*k^2*l*z^2 + 648*a^5*c^5*d*k^2*m*z^2 - 648*a^4*c^6*d^2*k*m*z^2 - 648*a^5 \\
& *c^5*e*j*l^2*z^2 + 648*a^5*c^5*d*k*l^2*z^2 + 648*a^4*c^6*e^2*j*l*z^2 + 324* \\
& a^6*b*c^3*l^3*m*z^2 + 27*a^4*b^5*c*l^3*m*z^2 + 648*a^5*c^5*f*h*l^2*z^2 - 64 \\
& 8*a^4*c^6*e^2*h*m*z^2 + 1512*a^5*b*c^4*j^3*m*z^2 + 1080*a^6*b*c^3*j*m^3*z^2 \\
& - 162*a^4*b^5*c*j*m^3*z^2 - 648*a^4*c^6*f*g^2*k*z^2 + 648*a^4*c^6*e*g^2*l* \\
& z^2 - 648*a^4*c^6*d*g^2*m*z^2 - 27*a^3*b^6*c*j*l^3*z^2 + 648*a^4*c^6*e*h^2* \\
& j*z^2 + 648*a^4*c^6*d*h^2*k*z^2 + 324*a^5*b*c^4*j*k^3*z^2 - 1296*a^4*c^6*e* \\
& g*j^2*z^2 - 1296*a^4*c^6*d*h*j^2*z^2 - 108*a^4*b*c^5*g^3*m*z^2 - 648*a^4*c^ \\
& 6*d*f*k^2*z^2 - 648*a^3*c^7*d^2*g*j*z^2 + 648*a^3*c^7*d^2*f*k*z^2 + 648*a^3 \\
& *c^7*d^2*e*l*z^2 + 270*a^3*b^6*c*f*m^3*z^2 + 648*a^3*c^7*d*e^2*k*z^2 - 540* \\
& a^5*b*c^4*f*l^3*z^2 + 324*a^3*b*c^6*e^3*m*z^2 - 108*a^4*b*c^5*h^3*j*z^2 + 2 \\
& 7*a^2*b^7*c*f*l^3*z^2 + 27*a*b^5*c^4*e^3*m*z^2 + 648*a^3*c^7*e^2*f*h*z^2 + \\
& 216*a*b^4*c^5*d^3*m*z^2 + 648*a^4*b*c^5*f*j^3*z^2 + 216*a^3*b*c^6*f^3*j*z^2 \\
& + 648*a^3*c^7*d*f*g^2*z^2 - 27*a*b^4*c^5*e^3*j*z^2 + 324*a^2*b*c^7*d^3*j*z \\
& ^2 - 189*a*b^3*c^6*d^3*j*z^2 - 108*a^3*b*c^6*f*g^3*z^2 - 108*a^2*b*c^7*e^3* \\
& f*z^2 + 27*a*b^3*c^6*e^3*f*z^2 + 162*a*b^2*c^7*d^3*f*z^2 - 1134*a^5*b^2*c^3 \\
& *j^2*m^2*z^2 + 648*a^4*b^4*c^2*j^2*m^2*z^2 + 81*a^5*b^2*c^3*k^2*l^2*z^2 + 1 \\
& 62*a^4*b^2*c^4*f^2*m^2*z^2 + 81*a^4*b^2*c^4*h^2*k^2*z^2 + 81*a^4*b^2*c^4*g^ \\
& 2*l^2*z^2 + 162*a^3*b^2*c^5*f^2*j^2*z^2 + 81*a^3*b^2*c^5*e^2*k^2*z^2 + 81*a \\
& ^3*b^2*c^5*d^2*l^2*z^2 + 81*a^3*b^2*c^5*g^2*h^2*z^2 + 81*a^2*b^2*c^6*e^2*g^ \\
& 2*z^2 + 81*a^2*b^2*c^6*d^2*h^2*z^2 - 216*a^6*c^4*k^3*m*z^2 + 216*a^6*c^4*j* \\
& l^3*z^2 + 27*a^3*b^7*j*m^3*z^2 + 216*a^5*c^5*h^3*m*z^2 + 432*a^6*c^4*f*m^3* \\
& z^2 + 432*a^4*c^6*f^3*m*z^2 - 27*b^6*c^4*d^3*m*z^2 - 27*a^2*b^8*f*m^3*z^2 + \\
& 216*a^5*c^5*f*k^3*z^2 + 216*a^4*c^6*g^3*j*z^2 + 216*a^3*c^7*d^3*m*z^2 + 21 \\
& 6*a^5*b^4*c*m^4*z^2 - 216*a^3*c^7*e^3*j*z^2 + 27*b^5*c^5*d^3*j*z^2 - 216*a^ \\
& 4*c^6*f*h^3*z^2 - 27*b^4*c^6*d^3*f*z^2 - 216*a^2*c^8*d^3*f*z^2 - 648*a^6*c^ \\
& 4*j^2*m^2*z^2 - 324*a^6*c^4*k^2*l^2*z^2 - 648*a^5*c^5*f^2*m^2*z^2 - 324*a^5 \\
& *c^5*h^2*k^2*z^2 - 324*a^5*c^5*g^2*l^2*z^2 - 648*a^4*c^6*f^2*j^2*z^2 - 324* \\
& a^4*c^6*e^2*k^2*z^2 - 324*a^4*c^6*d^2*l^2*z^2 - 405*a^6*b^2*c^2*m^4*z^2 - 3 \\
& 24*a^4*c^6*g^2*h^2*z^2 - 324*a^3*c^7*e^2*g^2*z^2 - 324*a^3*c^7*d^2*h^2*z^2 \\
& + 243*a^4*b^2*c^4*j^4*z^2 - 27*a^3*b^4*c^3*j^4*z^2 - 324*a^2*c^8*d^2*e^2*z^ \\
& 2 + 27*a^2*b^2*c^6*f^4*z^2 - 108*a^7*c^3*m^4*z^2 - 27*a^4*b^6*m^4*z^2 - 540 \\
& *a^5*c^5*j^4*z^2 - 108*a^3*c^7*f^4*z^2 - 216*a^5*b*c^3*f*j*k*l*m*z - 54*a^3 \\
& *b^5*c*f*j*k*l*m*z + 27*a^3*b^5*c*g*h*k*l*m*z - 27*a^2*b^6*c*e*g*k*l*m*z - \\
& 27*a^2*b^6*c*d*h*k*l*m*z + 432*a^4*b*c^4*d*g*j*k*m*z - 432*a^4*b*c^4*d*e*k* \\
& l*m*z + 216*a^4*b*c^4*e*g*j*k*l*z + 216*a^4*b*c^4*e*f*j*k*m*z + 216*a^4*b*c \\
& ^4*d*h*j*k*l*z + 216*a^4*b*c^4*d*f*j*l*m*z + 216*a^4*b*c^4*f*g*h*j*m*z - 27 \\
& *a*b^6*c^2*d*e*j*k*l*z - 27*a*b^6*c^2*d*e*h*k*m*z - 27*a*b^6*c^2*d*e*g*l*m* \\
& z + 216*a^3*b*c^5*d*e*h*j*k*z + 216*a^3*b*c^5*d*e*g*j*l*z - 216*a^3*b*c^5*d \\
& *e*f*j*m*z + 27*a*b^5*c^3*d*e*h*j*k*z + 27*a*b^5*c^3*d*e*g*j*l*z + 27*a*b^5 \\
& *c^3*d*e*g*h*m*z - 27*a*b^4*c^4*d*e*g*h*j*z + 27*a*b^7*c*d*e*k*l*m*z + 270* \\
& a^4*b^3*c^2*f*j*k*l*m*z - 108*a^4*b^3*c^2*g*h*k*l*m*z - 216*a^4*b^2*c^3*f*h \\
& *j*k*m*z - 216*a^4*b^2*c^3*f*g*j*l*m*z - 216*a^4*b^2*c^3*e*g*k*l*m*z - 216* \\
& a^4*b^2*c^3*d*h*k*l*m*z + 162*a^3*b^4*c^2*e*g*k*l*m*z + 162*a^3*b^4*c^2*d*h \\
& *k*l*m*z + 108*a^4*b^2*c^3*g*h*j*k*l*z + 108*a^4*b^2*c^3*e*h*j*l*m*z + 54*a \\
& ^3*b^4*c^2*f*h*j*k*m*z + 54*a^3*b^4*c^2*f*g*j*l*m*z - 27*a^3*b^4*c^2*g*h*j* \\
& k*l*z + 540*a^3*b^3*c^3*d*e*k*l*m*z - 216*a^2*b^5*c^2*d*e*k*l*m*z - 162*a^3 \\
& *b^3*c^3*e*g*j*k*l*z - 162*a^3*b^3*c^3*d*h*j*k*l*z - 108*a^3*b^3*c^3*d*g*j* \\
& k*m*z - 54*a^3*b^3*c^3*e*f*j*k*m*z - 54*a^3*b^3*c^3*d*f*j*l*m*z + 27*a^2*b^ \\
& 5*c^2*e*g*j*k*l*z + 27*a^2*b^5*c^2*d*h*j*k*l*z - 108*a^3*b^3*c^3*e*g*h*k*m* \\
& z - 108*a^3*b^3*c^3*d*g*h*l*m*z - 54*a^3*b^3*c^3*f*g*h*j*m*z + 27*a^2*b^5*c \\
& ^2*e*g*h*k*m*z + 27*a^2*b^5*c^2*d*g*h*l*m*z - 540*a^3*b^2*c^4*d*e*j*k*l*z + \\
& 216*a^2*b^4*c^3*d*e*j*k*l*z - 216*a^3*b^2*c^4*d*e*h*k*m*z - 216*a^3*b^2*c^ \\
& 4*d*e*g*l*m*z + 162*a^2*b^4*c^3*d*e*h*k*m*z + 162*a^2*b^4*c^3*d*e*g*l*m*z + \\
& 108*a^3*b^2*c^4*e*g*h*j*k*z - 108*a^3*b^2*c^4*e*f*h*j*l*z + 108*a^3*b^2*c^ \\
& 4*d*g*h*j*l*z + 108*a^3*b^2*c^4*d*f*g*k*m*z - 27*a^2*b^4*c^3*e*g*h*j*k*z -
\end{aligned}$$

$$\begin{aligned}
& 27a^2b^4c^3d^2g^2h^2j^2k^2l^2m^2z - 162a^2b^3c^4d^2e^2h^2j^2k^2z - 162a^2b^3c^4d^2e^2g^2j^2k^2l^2m^2z + 54a^2b^3c^4d^2e^2f^2j^2k^2l^2m^2z - 108a^2b^3c^4d^2e^2g^2h^2m^2z + 108a^2b^2c^5d^2e^2g^2h^2j^2k^2l^2m^2z + 324a^6b^2c^2j^2k^2l^2m^2z - 81a^5b^3c^2j^2k^2l^2m^2z + 27a^4b^4c^2j^2k^2l^2m^2z - 27a^4b^4c^2h^2k^2l^2m^2z - 27a^4b^4c^2g^2k^2l^2m^2z + 216a^5b^2c^3h^2j^2k^2m^2z + 216a^5b^2c^3g^2j^2l^2m^2z + 54a^4b^4c^2f^2k^2l^2m^2z + 27a^4b^4c^2h^2j^2k^2m^2z + 27a^4b^4c^2g^2j^2l^2m^2z + 27a^2b^6c^2f^2k^2l^2m^2z + 216a^5b^2c^3e^2k^2l^2m^2z - 108a^5b^2c^3h^2j^2k^2l^2m^2z + 27a^3b^5c^2e^2k^2l^2m^2z + 216a^5b^2c^3d^2k^2l^2m^2z + 216a^4b^2c^4e^2j^2l^2m^2z - 108a^5b^2c^3g^2j^2k^2l^2m^2z + 27a^3b^5c^2d^2k^2l^2m^2z - 324a^5b^2c^3e^2j^2k^2m^2z - 324a^5b^2c^3d^2j^2l^2m^2z - 216a^5b^2c^3f^2h^2l^2m^2z - 108a^4b^2c^4f^2j^2k^2l^2m^2z - 27a^3b^5c^2e^2j^2k^2m^2z - 27a^3b^5c^2d^2j^2l^2m^2z - 324a^5b^2c^3g^2h^2j^2m^2z + 216a^5b^2c^3f^2h^2k^2m^2z + 216a^5b^2c^3f^2g^2l^2m^2z + 216a^5b^2c^3e^2h^2l^2m^2z - 216a^4b^2c^4f^2h^2k^2m^2z - 216a^4b^2c^4f^2g^2l^2m^2z - 27a^3b^5c^2g^2h^2j^2m^2z + 216a^4b^2c^4e^2g^2l^2m^2z - 108a^4b^2c^4g^2h^2j^2l^2m^2z - 216a^4b^2c^4f^2h^2j^2l^2m^2z + 216a^4b^2c^4e^2h^2j^2m^2z + 216a^4b^2c^4d^2h^2k^2m^2z - 108a^4b^2c^4g^2h^2j^2k^2z - 432a^4b^2c^4e^2g^2j^2m^2z - 432a^4b^2c^4d^2h^2j^2m^2z + 216a^4b^2c^4f^2h^2j^2k^2z + 216a^4b^2c^4f^2g^2j^2l^2z + 27a^2b^6c^2e^2g^2j^2m^2z + 27a^2b^6c^2d^2h^2j^2m^2z - 432a^3b^2c^5d^2g^2j^2m^2z - 216a^4b^2c^4f^2g^2j^2k^2z + 216a^3b^2c^5d^2f^2k^2m^2z + 216a^3b^2c^5d^2e^2l^2m^2z - 108a^4b^2c^4e^2h^2j^2k^2l^2m^2z - 108a^4b^2c^4d^2g^2k^2l^2m^2z - 108a^3b^2c^5d^2h^2j^2l^2m^2z + 108a^3b^2c^5d^2g^2k^2l^2z - 54a^2b^5c^3d^2g^2j^2m^2z + 27a^2b^5c^3d^2g^2k^2l^2z + 27a^2b^5c^3d^2e^2l^2m^2z - 216a^4b^2c^4e^2f^2j^2l^2m^2z + 216a^3b^2c^5d^2e^2k^2m^2z - 108a^4b^2c^4d^2g^2j^2l^2m^2z - 108a^3b^2c^5e^2g^2j^2k^2z + 27a^2b^5c^3d^2e^2k^2m^2z + 324a^4b^2c^4d^2e^2j^2m^2z + 216a^3b^2c^5e^2f^2h^2m^2z - 108a^4b^2c^4e^2g^2h^2l^2m^2z + 108a^3b^2c^5e^2g^2h^2l^2z + 108a^3b^2c^5e^2f^2j^2k^2z + 108a^3b^2c^5d^2f^2j^2l^2z + 27a^2b^6c^2d^2e^2j^2m^2z - 216a^3b^2c^5e^2f^2h^2l^2m^2z + 108a^3b^2c^5f^2g^2h^2j^2z - 27a^2b^4c^4d^2e^2j^2l^2m^2z + 216a^3b^2c^5d^2f^2g^2m^2z - 108a^3b^2c^5e^2g^2h^2j^2z + 54a^2b^4c^4d^2f^2g^2m^2z - 27a^2b^4c^4d^2g^2h^2k^2z - 27a^2b^4c^4d^2e^2h^2m^2z - 27a^2b^4c^4d^2e^2j^2k^2z - 108a^3b^2c^5d^2g^2h^2j^2z + 54a^2b^4c^4d^2e^2h^2l^2z + 27a^2b^6c^2d^2e^2h^2l^2z - 27a^2b^5c^3d^2e^2h^2l^2z - 27a^2b^4c^4d^2e^2g^2m^2z - 27a^2b^4c^4d^2e^2f^2m^2z + 216a^2b^2c^6d^2f^2g^2j^2z - 108a^3b^2c^5d^2e^2g^2k^2z - 108a^2b^2c^6d^2e^2h^2j^2z + 108a^2b^2c^6d^2e^2g^2k^2z - 54a^2b^3c^5d^2f^2g^2j^2z - 27a^2b^5c^3d^2e^2g^2k^2z + 27a^2b^4c^4d^2e^2g^2k^2z + 27a^2b^3c^5d^2e^2h^2j^2z - 27a^2b^3c^5d^2e^2g^2k^2z - 108a^2b^2c^6d^2e^2g^2j^2z + 27a^2b^3c^5d^2e^2g^2j^2z - 108a^2b^2c^6d^2e^2f^2j^2z + 27a^2b^3c^5d^2e^2f^2j^2z - 432a^5c^4e^2h^2j^2l^2m^2z + 432a^4c^5d^2e^2j^2k^2l^2z + 432a^4c^5e^2f^2h^2j^2l^2z - 432a^4c^5d^2f^2g^2k^2m^2z - 27a^2b^7c^2d^2e^2j^2m^2z - 54a^5b^2c^2j^2k^2l^2m^2z + 108a^5b^2c^2h^2k^2l^2m^2z + 108a^5b^2c^2g^2k^2l^2m^2z - 54a^5b^2c^2h^2j^2l^2m^2z + 378a^4b^2c^3f^2k^2l^2m^2z - 270a^5b^2c^2f^2k^2l^2m^2z - 189a^3b^4c^2f^2k^2l^2m^2z - 108a^5b^2c^2h^2j^2k^2m^2z - 108a^5b^2c^2g^2j^2l^2m^2z - 54a^4b^3c^2h^2j^2k^2m^2z - 54a^4b^3c^2g^2j^2l^2m^2z - 162a^4b^3c^2e^2k^2l^2m^2z + 54a^4b^2c^3g^2j^2k^2m^2z + 27a^4b^3c^2h^2j^2k^2l^2z - 162a^4b^3c^2d^2k^2l^2m^2z + 108a^4b^2c^3g^2h^2l^2m^2z - 54a^3b^3c^3e^2j^2l^2m^2z + 27a^4b^3c^2g^2j^2k^2l^2z - 27a^3b^4c^2g^2h^2l^2m^2z - 270a^4b^2c^3f^2j^2k^2l^2z + 189a^4b^3c^2e^2j^2k^2m^2z + 189a^4b^3c^2d^2j^2l^2m^2z - 162a^4b^2c^3e^2j^2k^2m^2z - 162a^4b^2c^3d^2j^2l^2m^2z + 135a^3b^3c^3f^2j^2k^2l^2z + 108a^4b^2c^3g^2h^2k^2m^2z + 54a^4b^3c^2f^2h^2l^2m^2z - 54a^4b^2c^3f^2h^2l^2m^2z + 54a^3b^4c^2f^2j^2k^2l^2z - 27a^3b^4c^2g^2h^2k^2m^2z + 27a^3b^4c^2e^2j^2k^2m^2z + 27a^3b^4c^2d^2j^2l^2m^2z - 27a^2b^5c^2f^2j^2k^2l^2z - 270a^3b^2c^4d^2j^2k^2m^2z + 189a^4b^3c^2g^2h^2j^2m^2z - 162a^4b^2c^3g^2h^2j^2m^2z + 162a^4b^2c^3e^2j^2k^2l^2z + 162a^3b^3c^3f^2h^2k^2m^2z + 162a^3b^3c^3f^2g^2l^2m^2z - 54a^4b^3c^2f^2h^2k^2m^2z - 54a^4b^3c^2f^2g^2l^2m^2z - 54a^4b^3c^2e^2h^2l^2m^2z + 54a^4b^2c^3d^2j^2k^2m^2z + 54a^2b^4c^3d^2j^2k^2m^2z + 27a^3b^4c^2g^2h^2j^2m^2z - 27a^3b^4c^2e^2j^2k^2l^2z - 27a^2b^5c^2f^2h^2k^2m^2z - 27a^2b^5c^2f^2g^2l^2m^2z + 162a^4b^2c^3d^2j^2k^2l^2z - 162a^3b^3c^3e^2g^2l^2m^2z + 108a^4b^2c^3e^2h^2k^2m^2z + 108a^3b^2c^4d^2
\end{aligned}$$



$$\begin{aligned}
& 2*h*1*m*z - 54*a^4*b^2*c^3*f*g*k^2*m*z - 27*a^3*b^4*c^2*e*h*k^2*m*z - 27*a^3*b^4*c^2*d*j*k*1^2*z + 27*a^3*b^3*c^3*g^2*h*j*1*z + 27*a^2*b^5*c^2*e*g^2*1*m*z - 27*a^2*b^4*c^3*d^2*h*1*m*z + 270*a^4*b^2*c^3*f*h*j*1^2*z - 270*a^3*b^2*c^4*e^2*h*j*m*z - 162*a^4*b^2*c^3*e*h*k*1^2*z - 162*a^3*b^3*c^3*d*h^2*k*m*z + 162*a^3*b^2*c^4*e^2*h*k*1*z + 108*a^4*b^2*c^3*d*g*1^2*m*z + 108*a^3*b^2*c^4*e^2*g*k*m*z - 54*a^4*b^2*c^3*e*f*1^2*m*z - 54*a^3*b^4*c^2*f*h*j*1^2*z + 54*a^3*b^3*c^3*f*h^2*j*1*z - 54*a^3*b^3*c^3*e*h^2*j*m*z + 54*a^3*b^2*c^4*e^2*f*1*m*z + 54*a^2*b^4*c^3*e^2*h*j*m*z + 27*a^3*b^4*c^2*e*h*k*1^2*z - 27*a^3*b^4*c^2*d*g*1^2*m*z + 27*a^3*b^3*c^3*g*h^2*j*k*z + 27*a^2*b^5*c^2*d*h^2*k*m*z - 27*a^2*b^4*c^3*e^2*h*k*1*z - 27*a^2*b^4*c^3*e^2*g*k*m*z + 432*a^4*b^2*c^3*e*g*j*m^2*z + 432*a^4*b^2*c^3*d*h*j*m^2*z - 270*a^4*b^2*c^3*d*g*k*m^2*z - 216*a^3*b^4*c^2*e*g*j*m^2*z - 216*a^3*b^4*c^2*d*h*j*m^2*z + 216*a^3*b^3*c^3*e*g*j^2*m*z + 216*a^3*b^3*c^3*d*h*j^2*m*z - 162*a^3*b^2*c^4*e*f^2*k*m*z - 162*a^3*b^2*c^4*d*f^2*1*m*z - 108*a^3*b^2*c^4*f^2*h*j*k*z - 108*a^3*b^2*c^4*f^2*g*j*1*z + 54*a^4*b^2*c^3*e*f*k*m^2*z + 54*a^4*b^2*c^3*d*f*1*m^2*z + 54*a^3*b^4*c^2*d*g*k*m^2*z - 54*a^3*b^3*c^3*f*h*j^2*k*z - 54*a^3*b^3*c^3*f*g*j^2*1*z - 27*a^2*b^5*c^2*e*g*j^2*m*z - 27*a^2*b^5*c^2*d*h*j^2*m*z + 27*a^2*b^4*c^3*f^2*h*j*k*z + 27*a^2*b^4*c^3*f^2*g*j*1*z + 27*a^2*b^4*c^3*e*f^2*k*m*z + 27*a^2*b^4*c^3*d*f^2*1*m*z + 324*a^2*b^3*c^4*d^2*g*j*m*z - 270*a^3*b^2*c^4*d*g^2*j*m*z - 162*a^3*b^2*c^4*f^2*g*h*m*z + 162*a^3*b^2*c^4*e*g^2*j*1*z - 162*a^2*b^3*c^4*d^2*e*1*m*z - 135*a^2*b^3*c^4*d^2*g*k*1*z + 108*a^3*b^2*c^4*d*g^2*k*1*z + 54*a^4*b^2*c^3*f*g*h*m^2*z + 54*a^3*b^3*c^3*f*g*j*k^2*z - 54*a^3*b^2*c^4*f*g^2*j*k*z + 54*a^2*b^4*c^3*d*g^2*j*m*z - 54*a^2*b^3*c^4*d^2*f*k*m*z + 27*a^3*b^3*c^3*e*h*j*k^2*z + 27*a^3*b^3*c^3*d*g*k^2*1*z + 27*a^2*b^4*c^3*f^2*g*h*m*z - 27*a^2*b^4*c^3*e*g^2*j*1*z - 27*a^2*b^4*c^3*d*g^2*k*1*z + 27*a^2*b^3*c^4*d^2*h*j*1*z + 162*a^3*b^2*c^4*d*h^2*j*k*z - 162*a^2*b^3*c^4*d*e^2*k*m*z + 108*a^3*b^2*c^4*e*g^2*h*m*z + 54*a^3*b^3*c^3*e*f*j*1^2*z + 27*a^3*b^3*c^3*d*g*j*1^2*z - 27*a^2*b^4*c^3*e*g^2*h*m*z - 27*a^2*b^4*c^3*d*h^2*j*k*z + 27*a^2*b^3*c^4*e^2*g*j*k*z - 621*a^3*b^3*c^3*d*e*j*m^2*z + 594*a^3*b^2*c^4*d*e*j^2*m*z + 243*a^2*b^5*c^2*d*e*j*m^2*z - 243*a^2*b^4*c^3*d*e*j^2*m*z + 135*a^3*b^3*c^3*e*g*h*1^2*z - 108*a^3*b^2*c^4*e*g*h^2*1*z + 108*a^3*b^2*c^4*d*g*h^2*m*z + 54*a^3*b^2*c^4*e*f*j^2*k*z + 54*a^3*b^2*c^4*e*f*h^2*m*z + 54*a^3*b^2*c^4*d*g*j^2*k*z + 54*a^3*b^2*c^4*d*f*j^2*1*z - 54*a^2*b^3*c^4*e^2*f*h*m*z - 27*a^2*b^5*c^2*e*g*h*1^2*z + 27*a^2*b^4*c^3*e*g*h^2*1*z - 27*a^2*b^4*c^3*d*g*h^2*m*z - 27*a^2*b^3*c^4*e^2*g*h*1*z - 27*a^2*b^3*c^4*e*f^2*j*k*z - 27*a^2*b^3*c^4*d*f^2*j*1*z + 162*a^2*b^2*c^5*d^2*e*j*1*z + 54*a^3*b^2*c^4*f*g*h*j^2*z - 54*a^3*b^2*c^4*d*f*j*k^2*z + 54*a^2*b^3*c^4*e*f^2*h*1*z + 54*a^2*b^2*c^5*d^2*f*j*k*z - 27*a^2*b^3*c^4*f^2*g*h*j*z - 270*a^2*b^2*c^5*d^2*f*g*m*z - 162*a^3*b^2*c^4*d*g*h*k^2*z + 162*a^2*b^2*c^5*d^2*g*h*k*z + 162*a^2*b^2*c^5*d*e^2*j*k*z + 108*a^2*b^2*c^5*d^2*e*h*m*z - 54*a^2*b^3*c^4*d*f*g^2*m*z + 27*a^2*b^4*c^3*d*g*h*k^2*z + 27*a^2*b^3*c^4*e*g^2*h*j*z + 270*a^3*b^2*c^4*d*e*h*1^2*z - 270*a^2*b^2*c^5*d*e^2*h*1*z - 162*a^2*b^4*c^3*d*e*h*1^2*z + 108*a^2*b^3*c^4*d*e*h^2*1*z + 108*a^2*b^2*c^5*d*e^2*g*m*z + 54*a^2*b^2*c^5*e^2*f*h*j*z + 27*a^2*b^3*c^4*d*g*h^2*j*z + 162*a^2*b^2*c^5*d*e*f^2*m*z - 54*a^3*b^2*c^4*d*e*f*m^2*z - 54*a^2*b^2*c^5*d*f^2*g*k*z + 135*a^2*b^3*c^4*d*e*g*k^2*z - 108*a^2*b^2*c^5*d*e*g^2*k*z + 54*a^2*b^2*c^5*d*f*g^2*j*z - 54*a^2*b^2*c^5*d*e*f*j^2*z - 9*a*b^7*c*d*e*1^3*z - 36*a*b*c^7*d^3*e*g*z - 108*a^6*b*c^2*k^2*1^2*m*z + 27*a^5*b^3*c*k^2*1^2*m*z - 18*a^5*b^2*c^2*j*k^3*m*z - 27*a^4*b^3*c^2*j^3*k*1*z - 108*a^5*b*c^3*h^2*k^2*m*z - 108*a^5*b*c^3*g^2*1^2*m*z + 108*a^5*b*c^3*h^2*k*1^2*z + 108*a^5*b*c^3*g^2*k*m^2*z + 90*a^5*b^2*c^2*f*1^3*m*z - 18*a^5*b^2*c^2*h*k*1^3*z + 18*a^4*b^2*c^3*h^3*k*1*z + 18*a^4*b^2*c^3*h^3*j*m*z - 108*a^5*b*c^3*h*j^2*1^2*z + 18*a^4*b^3*c^2*f*k^3*m*z - 18*a^3*b^3*c^3*g^3*j*m*z - 9*a^4*b^3*c^2*g*k^3*1*z + 9*a^3*b^3*c^3*g^3*k*1*z + 252*a^4*b^2*c^3*f*j^3*m*z + 216*a^5*b*c^3*f*j^2*m^2*z + 180*a^3*b^2*c^4*f^3*j*m*z - 108*a^4*b*c^4*e^2*k^2*m*z - 108*a^4*b*c^4*d^2*1^2*m*z + 90*a^5*b^2*c^2*e*k*m^3*z + 90*a^5*b^2*c^2*d*1*m^3*z - 90*a^3*b^2*c^4*f^3*k*1*z + 54*a^3*b^5*c*f*j^2*m^2*z - 54*a^3*b^4*c^2*f*j^3*m*z + 36*a^5*b^2*c^2*f*j*m^3*z + 36*a^4*b^2*c^3*h*j^3*k*z + 36*a^4*b^2*c^3*g*j^3*1*z - 36*a^2*b^4*c^3*f^3*j*m*z - 27*a^2*b^6*c*f^2*j*m^2
\end{aligned}$$

$$\begin{aligned}
& *z + 18*a^2*b^4*c^3*f^3*k*1*z - 216*a^4*b*c^4*d^2*k*m^2*z + 108*a^5*b*c^3*d \\
& *k^2*m^2*z - 108*a^4*b^3*c^2*f*j*1^3*z - 108*a^4*b*c^4*g^2*h^2*m*z + 108*a^ \\
& 2*b^3*c^4*e^3*j*m*z + 90*a^5*b^2*c^2*g*h*m^3*z + 54*a^4*b^3*c^2*e*k*1^3*z - \\
& 54*a^2*b^3*c^4*e^3*k*1*z + 234*a^2*b^2*c^5*d^3*j*m*z - 144*a^2*b^2*c^5*d^3 \\
& *k*1*z + 90*a^4*b^2*c^3*f*j*k^3*z - 72*a^4*b^2*c^3*d*k^3*1*z + 27*a^4*b^3*c \\
& ^2*g*h*1^3*z - 27*a^3*b^3*c^3*g*h^3*1*z - 18*a^3*b^4*c^2*f*j*k^3*z + 9*a^3*b \\
& ^4*c^2*d*k^3*1*z + 216*a^4*b*c^4*f^2*h*1^2*z - 216*a^4*b*c^4*e^2*h*m^2*z + \\
& 108*a^4*b*c^4*g^2*h*k^2*z - 18*a^4*b^2*c^3*g*h*k^3*z + 18*a^3*b^2*c^4*g^3* \\
& h*k*z + 18*a^3*b^2*c^4*f*g^3*m*z + 9*a^3*b^4*c^2*g*h*k^3*z - 9*a^3*b^3*c^3* \\
& e*j^3*k*z - 9*a^3*b^3*c^3*d*j^3*1*z - 144*a^4*b^3*c^2*e*g*m^3*z - 144*a^4*b \\
& ^3*c^2*d*h*m^3*z - 108*a^3*b*c^5*e^2*g^2*m*z + 108*a^3*b*c^5*d^2*j^2*k*z - \\
& 108*a^3*b*c^5*d^2*h^2*m*z - 18*a^2*b^3*c^4*f^3*h*k*z - 18*a^2*b^3*c^4*f^3*g \\
& *1*z - 9*a^3*b^3*c^3*g*h*j^3*z - 216*a^4*b*c^4*d*g^2*m^2*z + 144*a^4*b^2*c^ \\
& 3*e*g*1^3*z - 126*a^3*b^2*c^4*d*h^3*1*z - 108*a^4*b*c^4*d*h^2*1^2*z - 108*a \\
& ^3*b*c^5*f^2*g^2*k*z - 108*a^3*b*c^5*e^2*h^2*k*z - 90*a^2*b^2*c^5*e^3*f*m*z \\
& + 72*a^2*b^2*c^5*e^3*g*1*z - 63*a^3*b^4*c^2*e*g*1^3*z - 36*a^3*b^4*c^2*d*h \\
& *1^3*z + 27*a^2*b^4*c^3*d*h^3*1*z + 27*a*b^6*c^2*d^2*g*m^2*z - 18*a^4*b^2*c \\
& ^3*d*h*1^3*z - 18*a^3*b^2*c^4*f*h^3*j*z - 18*a^3*b^2*c^4*e*h^3*k*z + 18*a^2 \\
& *b^2*c^5*e^3*h*k*z + 108*a^3*b*c^5*e^2*h*j^2*z + 54*a^3*b^3*c^3*d*h*k^3*z + \\
& 27*a^3*b^3*c^3*e*g*k^3*z - 27*a^2*b^3*c^4*e*g^3*k*z + 27*a^2*b^3*c^4*d*g^3 \\
& *1*z - 27*a*b^4*c^4*d^2*g^2*1*z - 9*a^2*b^5*c^2*e*g*k^3*z - 9*a^2*b^5*c^2*d \\
& *h*k^3*z + 207*a^3*b^4*c^2*d*e*m^3*z - 108*a^2*b*c^6*d^2*e^2*m*z - 90*a^4*b \\
& ^2*c^3*d*e*m^3*z - 72*a^3*b^2*c^4*e*g*j^3*z - 72*a^3*b^2*c^4*d*h*j^3*z + 27 \\
& *a*b^3*c^5*d^2*e^2*m*z + 18*a^2*b^2*c^5*e*f^3*k*z + 18*a^2*b^2*c^5*d*f^3*1* \\
& z + 9*a^2*b^4*c^3*e*g*j^3*z + 9*a^2*b^4*c^3*d*h*j^3*z - 216*a^3*b*c^5*d*e^2 \\
& *1^2*z - 198*a^3*b^3*c^3*d*e*1^3*z + 108*a^3*b*c^5*d*g^2*j^2*z - 108*a^3*b* \\
& c^5*d*f^2*k^2*z + 72*a^2*b^5*c^2*d*e*1^3*z - 27*a*b^5*c^3*d*e^2*1^2*z + 27* \\
& a*b^4*c^4*d^2*g*j^2*z + 18*a^2*b^2*c^5*f^3*g*h*z + 144*a^3*b^2*c^4*d*e*k^3* \\
& z - 63*a^2*b^4*c^3*d*e*k^3*z + 27*a*b^4*c^4*d^2*e*k^2*z - 9*a^2*b^3*c^4*e*g \\
& *h^3*z - 108*a^2*b*c^6*d^2*g^2*h*z + 81*a^2*b^3*c^4*d*e*j^3*z + 27*a*b^3*c^ \\
& 5*d^2*g^2*h*z - 27*a*b^2*c^6*d^2*e^2*j*z - 18*a^2*b^2*c^5*d*g^3*h*z + 108*a \\
& ^2*b*c^6*d*e^2*h^2*z - 27*a*b^3*c^5*d*e^2*h^2*z + 27*a*b^2*c^6*d^2*f^2*g*z \\
& - 18*a^2*b^2*c^5*d*e*h^3*z - 216*a^6*c^3*j^2*k*1*m*z + 216*a^6*c^3*h*j*1^2* \\
& m*z + 216*a^6*c^3*f*k*1*m^2*z - 216*a^5*c^4*f^2*k*1*m*z - 216*a^5*c^4*g^2*j \\
& *k*m*z + 216*a^5*c^4*f*j^2*k*1*z + 216*a^5*c^4*f*h^2*1*m*z + 216*a^5*c^4*e* \\
& j^2*k*m*z + 216*a^5*c^4*d*j^2*1*m*z + 216*a^5*c^4*g*h*j^2*m*z - 216*a^5*c^4 \\
& *e*j*k^2*1*z - 216*a^5*c^4*d*j*k^2*m*z + 216*a^4*c^5*d^2*j*k*m*z - 18*a^6*b \\
& ^2*c*k*1*m^3*z + 216*a^5*c^4*f*g*k^2*m*z - 216*a^5*c^4*d*j*k*1^2*z - 72*a^6 \\
& *b*c^2*j*1^3*m*z + 18*a^5*b^3*c*j*1^3*m*z - 216*a^5*c^4*f*h*j*1^2*z + 216*a \\
& ^5*c^4*e*h*k*1^2*z + 216*a^5*c^4*e*f*1^2*m*z - 216*a^4*c^5*e^2*h*k*1*z + 21 \\
& 6*a^4*c^5*e^2*h*j*m*z - 216*a^4*c^5*e^2*f*1*m*z - 216*a^5*c^4*e*f*k*m^2*z + \\
& 216*a^5*c^4*d*g*k*m^2*z - 216*a^5*c^4*d*f*1*m^2*z + 216*a^4*c^5*e*f^2*k*m* \\
& z + 216*a^4*c^5*d*f^2*1*m*z + 108*a^5*b*c^3*j^3*k*1*z - 216*a^5*c^4*f*g*h*m \\
& ^2*z + 216*a^4*c^5*f^2*g*h*m*z + 216*a^4*c^5*f*g^2*j*k*z - 216*a^4*c^5*e*g^ \\
& 2*j*1*z + 216*a^4*c^5*d*g^2*j*m*z - 72*a^6*b*c^2*h*k*m^3*z - 72*a^6*b*c^2*g \\
& *1*m^3*z + 54*a^5*b^3*c*h*k*m^3*z + 54*a^5*b^3*c*g*1*m^3*z - 216*a^4*c^5*d* \\
& h^2*j*k*z - 18*a^4*b^4*c*f*1^3*m*z + 9*a^4*b^4*c*h*k*1^3*z - 216*a^4*c^5*e* \\
& f*j^2*k*z - 216*a^4*c^5*e*f*h^2*m*z - 216*a^4*c^5*d*g*j^2*k*z - 216*a^4*c^5 \\
& *d*f*j^2*1*z - 216*a^4*c^5*d*e*j^2*m*z - 72*a^5*b*c^3*f*k^3*m*z + 72*a^4*b* \\
& c^4*g^3*j*m*z + 36*a^5*b*c^3*g*k^3*1*z - 36*a^4*b*c^4*g^3*k*1*z - 216*a^4*c \\
& ^5*f*g*h*j^2*z + 216*a^4*c^5*d*f*j*k^2*z - 216*a^3*c^6*d^2*f*j*k*z - 216*a^ \\
& 3*c^6*d^2*e*j*1*z + 72*a^4*b^4*c*f*j*m^3*z - 63*a^4*b^4*c*e*k*m^3*z - 63*a^ \\
& 4*b^4*c*d*1*m^3*z + 216*a^4*c^5*d*g*h*k^2*z - 216*a^3*c^6*d^2*g*h*k*z + 216 \\
& *a^3*c^6*d^2*f*g*m*z - 216*a^3*c^6*d*e^2*j*k*z + 144*a^5*b*c^3*f*j*1^3*z - \\
& 144*a^3*b*c^5*e^3*j*m*z - 72*a^5*b*c^3*e*k*1^3*z + 72*a^3*b*c^5*e^3*k*1*z - \\
& 63*a^4*b^4*c*g*h*m^3*z + 18*a^3*b^5*c*f*j*1^3*z - 18*a*b^5*c^3*e^3*j*m*z - \\
& 9*a^3*b^5*c*e*k*1^3*z + 9*a*b^5*c^3*e^3*k*1*z - 216*a^4*c^5*d*e*h*1^2*z - \\
& 216*a^3*c^6*e^2*f*h*j*z + 216*a^3*c^6*d*e^2*h*1*z - 126*a*b^4*c^4*d^3*j*m*z \\
& + 108*a^4*b*c^4*g*h^3*1*z + 63*a*b^4*c^4*d^3*k*1*z + 36*a^5*b*c^3*g*h*1^3*
\end{aligned}$$

$$\begin{aligned}
& z - 9a^3b^5c^*g^*h^*l^3z + 216a^4c^5d^*e^*f^*m^2z + 216a^3c^6d^*f^2g^*k \\
& *z - 216a^3c^6d^*e^*f^2m^*z + 36a^4b^*c^4e^*j^3k^*z + 36a^4b^*c^4d^*j^3* \\
& l^*z - 216a^3c^6d^*f^*g^2j^*z + 72a^3b^5c^*e^*g^*m^3z + 72a^3b^5c^*d^*h^*m \\
& ^3z + 72a^3b^*c^5f^3h^*k^*z + 72a^3b^*c^5f^3g^*l^*z + 36a^4b^*c^4g^*h^*j \\
& ^3z + 18a^*b^4c^4e^3f^*m^*z + 9a^2b^6c^*e^*g^*l^3z + 9a^2b^6c^*d^*h^*l^3 \\
& *z - 9a^*b^4c^4e^3h^*k^*z - 9a^*b^4c^4e^3g^*l^*z + 216a^3c^6d^*e^*f^*j^2* \\
& z - 144a^2b^*c^6d^3f^*m^*z + 108a^3b^*c^5e^*g^3k^*z - 108a^3b^*c^5d^*g^3 \\
& *l^*z + 108a^*b^3c^5d^3f^*m^*z - 72a^4b^*c^4d^*h^*k^3z + 72a^2b^*c^6d^3* \\
& h^*k^*z - 54a^*b^3c^5d^3h^*k^*z + 36a^4b^*c^4e^*g^*k^3z - 36a^2b^*c^6d^3* \\
& g^*l^*z - 27a^*b^3c^5d^3g^*l^*z - 81a^2b^6c^*d^*e^*m^3z + 216a^4b^*c^4d^*e \\
& *l^3z + 72a^2b^*c^6e^3f^*j^*z + 72a^2b^*c^6d^*e^3l^*z - 18a^*b^3c^5e^3 \\
& *f^*j^*z - 18a^*b^3c^5d^*e^3l^*z - 90a^*b^2c^6d^3f^*j^*z + 72a^*b^2c^6d^3 \\
& *e^*k^*z + 36a^3b^*c^5e^*g^*h^3z - 36a^2b^*c^6e^3g^*h^*z + 9a^*b^6c^2d^*e^* \\
& k^3z + 9a^*b^3c^5e^3g^*h^*z - 180a^3b^*c^5d^*e^*j^3z + 18a^*b^2c^6d^3* \\
& g^*h^*z - 9a^*b^5c^3d^*e^*j^3z + 18a^*b^2c^6d^*e^3h^*z + 9a^*b^4c^4d^*e^*h^ \\
& ^3z + 36a^2b^*c^6d^*e^*g^3z - 9a^*b^3c^5d^*e^*g^3z - 18a^*b^2c^6d^*e^*f^3 \\
& *z + 27a^5b^2c^2h^2l^*m^2z - 27a^5b^2c^2j^*k^2l^2z + 27a^4b^3c^ \\
& ^2h^2k^2m^*z + 27a^4b^3c^2g^2l^2m^*z + 27a^5b^2c^2g^*k^2m^2z - \\
& 27a^4b^3c^2h^2k^*l^2z - 27a^4b^3c^2g^2k^*m^2z - 135a^4b^2c^3e^ \\
& ^2l^*m^2z + 27a^5b^2c^2e^*l^2m^2z + 27a^4b^3c^2h^*j^2l^2z - 27a^ \\
& ^4b^2c^3h^2j^2l^*z + 27a^3b^4c^2e^2l^*m^2z - 270a^4b^3c^2f^*j^2 \\
& *m^2z - 270a^4b^2c^3f^2j^*m^2z + 162a^3b^4c^2f^2j^*m^2z - 108a^ \\
& ^3b^3c^3f^2j^2m^*z - 27a^4b^2c^3h^2j^*k^2z - 27a^4b^2c^3g^2j^*l \\
& ^2z + 27a^3b^3c^3e^2k^2m^*z + 27a^3b^3c^3d^2l^2m^*z + 27a^2b^5 \\
& *c^2f^2j^2m^*z + 162a^3b^3c^3d^2k^*m^2z - 27a^4b^3c^2d^*k^2m^2z \\
& - 27a^4b^2c^3g^*j^2k^2z + 27a^3b^3c^3g^2h^2m^*z - 27a^2b^5c^2 \\
& *d^2k^*m^2z + 162a^3b^2c^4d^2k^2l^*z - 108a^4b^2c^3g^*h^2l^2z - \\
& 27a^4b^2c^3e^*j^2l^2z + 27a^3b^4c^2g^*h^2l^2z + 27a^3b^2c^4e^ \\
& ^2j^2l^*z - 27a^2b^4c^3d^2k^2l^*z - 162a^3b^3c^3f^2h^*l^2z + 162* \\
& a^3b^3c^3e^2h^*m^2z - 135a^4b^2c^3e^*h^2m^2z + 135a^3b^2c^4f^2 \\
& *h^2l^*z + 27a^3b^4c^2e^*h^2m^2z - 27a^3b^3c^3g^2h^*k^2z - 27a^3 \\
& *b^2c^4e^2j^*k^2z - 27a^3b^2c^4d^2j^*l^2z + 27a^2b^5c^2f^2h^*l^ \\
& ^2z - 27a^2b^5c^2e^2h^*m^2z - 27a^2b^4c^3f^2h^2l^*z - 27a^3b^2* \\
& c^4g^2h^2j^*z + 27a^2b^3c^4e^2g^2m^*z - 27a^2b^3c^4d^2j^2k^*z + \\
& 27a^2b^3c^4d^2h^2m^*z + 351a^3b^2c^4d^2g^*m^2z - 189a^2b^4c^3 \\
& *d^2g^*m^2z + 162a^3b^3c^3d^*g^2m^2z - 162a^3b^2c^4e^2g^*l^2z + \\
& 135a^3b^3c^3d^*h^2l^2z + 135a^3b^2c^4f^2g^*k^2z - 27a^2b^5c^2* \\
& d^*h^2l^2z - 27a^2b^5c^2d^*g^2m^2z - 27a^2b^4c^3f^2g^*k^2z + 27* \\
& a^2b^4c^3e^2g^*l^2z + 27a^2b^3c^4f^2g^2k^*z + 27a^2b^3c^4e^2h^ \\
& ^2k^*z + 135a^3b^2c^4e^*f^2l^2z - 108a^3b^2c^4e^*g^2k^2z + 108a^ \\
& ^2b^2c^5d^2g^2l^*z + 27a^3b^2c^4e^*h^2j^2z + 27a^2b^4c^3e^*g^2k \\
& ^2z - 27a^2b^4c^3e^*f^2l^2z - 27a^2b^3c^4e^2h^*j^2z - 27a^2b^2 \\
& *c^5e^2f^2l^*z - 27a^2b^2c^5e^2g^2j^*z - 27a^2b^2c^5d^2h^2j^*z \\
& + 162a^2b^3c^4d^*e^2l^2z - 135a^2b^2c^5d^2g^*j^2z - 27a^2b^3c^ \\
& ^4d^*g^2j^2z + 27a^2b^3c^4d^*f^2k^2z - 162a^2b^2c^5d^2e^*k^2z - \\
& 27a^2b^2c^5e^*f^2h^2z - 72a^7c^2k^*l^*m^3z + 9a^5b^4k^*l^*m^3z + 7 \\
& 2a^6c^3j^*k^3m^*z - 72a^6c^3h^*k^*l^3z - 72a^6c^3f^*l^3m^*z - 72a^5 \\
& c^4h^3k^*l^*z - 72a^5c^4h^3j^*m^*z - 9a^4b^5h^*k^*m^3z - 9a^4b^5g^*l^* \\
& m^3z - 144a^6c^3f^*j^*m^3z - 144a^5c^4h^*j^3k^*z - 144a^5c^4g^*j^3l^ \\
& *z - 144a^5c^4f^*j^3m^*z - 144a^4c^5f^3j^*m^*z + 72a^6c^3e^*k^*m^3z + \\
& 72a^6c^3d^*l^*m^3z + 72a^4c^5f^3k^*l^*z + 72a^6c^3g^*h^*m^3z + 18b^ \\
& ^6c^3d^3j^*m^*z - 18a^3b^6f^*j^*m^3z - 9b^6c^3d^3k^*l^*z + 9a^3b^6e^* \\
& k^*m^3z + 9a^3b^6d^*l^*m^3z + 144a^5c^4d^*k^3l^*z + 144a^3c^6d^3k^*l^ \\
& *z - 72a^5c^4f^*j^*k^3z - 72a^3c^6d^3j^*m^*z + 9a^3b^6g^*h^*m^3z - 72 \\
& *a^5c^4g^*h^*k^3z - 72a^4c^5g^3h^*k^*z - 72a^4c^5f^*g^3m^*z - 108a^5* \\
& b^*c^3j^4m^*z + 63a^6b^2c^*j^*m^4z + 36a^6b^*c^2k^*l^4z - 9a^5b^3c^*k \\
& *l^4z - 144a^5c^4e^*g^*l^3z - 144a^3c^6e^3g^*l^*z + 72a^5c^4d^*h^*l^3 \\
& *z + 72a^4c^5f^*h^3j^*z + 72a^4c^5e^*h^3k^*z + 72a^4c^5d^*h^3l^*z + 7 \\
& 2a^3c^6e^3h^*k^*z + 72a^3c^6e^3f^*m^*z - 18b^5c^4d^3f^*m^*z + 9b^5c
\end{aligned}$$

$$\begin{aligned}
& ^4d^3h^kz + 9b^5c^4d^3g^1z - 9a^2b^7e^g m^3z - 9a^2b^7d^h m^3z + 144a^4c^5e^g j^3z + 144a^4c^5d^h j^3z - 72a^5c^4d^e m^3z \\
& - 72a^3c^6e^f^3k^z - 72a^3c^6d^f^3l^z + 144a^6b^c^2f^m^4z - 108a^5b^3c^f^m^4z - 72a^3c^6f^3g^h^z + 36a^5b^c^3h^k^4z - 36a^3b^c^5f^4m^z + 18b^4c^5d^3f^j^z - 9b^4c^5d^3e^k^z + 9a^4b^4c^g^1^4z - 144a^4c^5d^e^k^3z - 144a^2c^7d^3e^k^z + 72a^2c^7d^3f^j^z - 9b^4c^5d^3g^h^z + 72a^3c^6d^g^3h^z + 72a^2c^7d^3g^h^z - 72a^5b^c^3d^l^4z - 72a^4b^c^4f^j^4z + 45a^ab^2c^6d^4l^z - 36a^2b^c^6e^4k^z - 9a^3b^5c^d^l^4z + 9a^ab^3c^5e^4k^z - 72a^3c^6d^e^h^3z - 72a^2c^7d^e^3h^z + 9b^3c^6d^3e^g^z + 72a^2c^7d^e^f^3z + 36a^3b^c^5d^h^4z - 9a^ab^2c^6e^4g^z + 36a^ab^c^7d^3f^2z + 90a^5b^2c^2j^3m^2z + 45a^5b^2c^2j^2l^3z + 9a^4b^3c^2j^2k^3z - 9a^4b^3c^2h^3m^2z - 45a^4b^2c^3g^3m^2z + 9a^3b^4c^2g^3m^2z + 198a^4b^3c^2f^2m^3z - 108a^3b^3c^3f^3m^2z + 18a^2b^5c^2f^3m^2z - 117a^4b^2c^3f^2l^3z + 117a^3b^2c^4e^3m^2z + 63a^3b^4c^2f^2l^3z - 63a^2b^4c^3e^3m^2z - 171a^2b^3c^4d^3m^2z - 54a^3b^3c^3f^2k^3z + 9a^3b^2c^4g^3j^2z + 9a^2b^5c^2f^2k^3z + 18a^3b^2c^4f^2j^3z + 18a^2b^3c^4f^3j^2z - 9a^2b^4c^3f^2j^3z - 45a^2b^2c^5e^3j^2z + 9a^2b^3c^4f^2h^3z - 9a^2b^2c^5f^2g^3z + 9a^ab^8d^e^m^3z - 36a^ab^c^7d^4h^z - 108a^6c^3h^2l^m^2z + 108a^6c^3j^k^2l^2z - 108a^6c^3g^k^2m^2z - 108a^6c^3e^l^2m^2z + 108a^5c^4h^2j^2l^z + 108a^5c^4e^2l^m^2z + 216a^5c^4f^2j^m^2z + 108a^5c^4h^2j^k^2z + 108a^5c^4g^2j^l^2z + 108a^5c^4g^j^2k^2z - 216a^4c^5d^2k^2l^z + 108a^5c^4e^j^2l^2z - 108a^4c^5e^2j^2l^z - 9a^6b^2c^l^3m^2z + 108a^5c^4e^h^2m^2z - 108a^4c^5f^2h^2l^z + 108a^4c^5e^2j^k^2z + 108a^4c^5d^2j^l^2z - 144a^6b^c^2j^2m^3z + 108a^4c^5g^2h^2j^z - 27a^4b^4c^j^3m^2z + 27a^4b^3c^2j^4m^z + 9a^5b^2c^2k^4l^z + 216a^4c^5e^2g^l^2z - 108a^4c^5f^2g^k^2z - 108a^4c^5d^2g^m^2z - 9a^4b^4c^j^2l^3z - 108a^4c^5e^h^2j^2z - 108a^4c^5e^f^2l^2z + 108a^3c^6e^2f^2l^z - 36a^5b^c^3j^2k^3z + 36a^5b^c^3h^3m^2z + 108a^3c^6e^2g^2j^z + 108a^3c^6d^2h^2j^z - 216a^5b^c^3f^2m^3z + 144a^4b^c^4f^3m^2z + 108a^3c^6d^2g^j^2z - 72a^3b^5c^f^2m^3z - 45a^5b^2c^2g^l^4z - 9a^4b^3c^2h^k^4z - 9a^3b^2c^4g^4l^z + 9a^2b^3c^4f^4m^z + 216a^3c^6d^2e^k^2z - 9a^2b^6c^f^2l^3z + 9a^ab^6c^2e^3m^2z + 108a^3c^6e^f^2h^2z + 108a^3b^c^5d^3m^2z + 108a^2c^7d^2e^2j^z + 72a^4b^c^4f^2k^3z + 72a^ab^5c^3d^3m^2z - 72a^3b^c^5f^3j^2z + 54a^4b^3c^2d^l^4z - 45a^4b^2c^3e^k^4z + 18a^3b^3c^3f^j^4z + 9a^3b^4c^2e^k^4z - 9a^2b^2c^5f^4j^z - 108a^2c^7d^2f^2g^z + 9a^3b^2c^4g^h^4z + 9a^ab^4c^4e^3j^2z - 72a^2b^c^6d^3j^2z + 54a^ab^3c^5d^3j^2z - 36a^3b^c^5f^2h^3z - 9a^2b^3c^4d^h^4z + 9a^2b^2c^5e^g^4z + 9a^ab^2c^6e^3f^2z + 36a^7c^2l^3m^2z + 72a^6c^3j^3m^2z - 36a^6c^3j^2l^3z + 9a^4b^5j^2m^3z + 36a^5c^4g^3m^2z + 36a^5c^4f^2l^3z - 36a^4c^5e^3m^2z - 9b^7c^2d^3m^2z + 9a^2b^7f^2m^3z - 36a^4c^5g^3j^2z + 72a^4c^5f^2j^3z + 36a^3c^6e^3j^2z - 9b^5c^4d^3j^2z + 36a^3c^6f^2g^3z - 9a^4b^2c^3j^5z - 36a^2c^7e^3f^2z - 9b^3c^6d^3f^2z + 36a^7c^2j^m^4z - 36a^6c^3k^4l^z - 18a^5b^4j^m^4z + 36a^6c^3g^l^4z + 36a^4c^5g^4l^z + 18a^4b^5f^m^4z - 9b^4c^5d^4l^z + 36a^5c^4e^k^4z + 36a^3c^6f^4j^z - 36a^2c^7d^4l^z - 36a^4c^5g^h^4z + 9b^3c^6d^4h^z - 36a^3c^6e^g^4z + 36a^2c^7e^4g^z - 9b^2c^7d^4e^z - 36a^7b^c^m^5z + 36a^c^8d^4e^z + 9a^6b^3m^5z + 36a^5c^4j^5z + 9a^4b^3c^g^h^j^k^l^m - 9a^3b^4c^e^g^j^k^l^m - 9a^3b^4c^d^h^j^k^l^m - 9a^3b^4c^f^g^h^k^l^m + 36a^4b^c^3d^e^j^k^l^m + 9a^2b^5c^d^e^j^k^l^m + 36a^4b^c^3e^f^h^j^l^m + 36a^4b^c^3e^f^g^k^l^m + 36a^4b^c^3d^f^h^k^l^m + 9a^2b^5c^e^f^g^k^l^m + 9a^2b^5c^d^f^h^k^l^m + 36a^3b^c^4d^e^f^j^k^l^m + 9a^ab^5c^2d^e^f^j^k^l^m + 36a^3b^c^4d^e^g^h^k^l^m + 36a^3b^c^4d^e^f^h^k^m + 36a^3b^c^4d^e^f^g^l^m + 9a^ab^5c^2d^e^f^h^k^m + 9a^ab^5c^2d^e^f^g^l^m - 9a^ab^4c^3d^e^f^h^j^k - 9a^ab^4c^3d^e^f^g^j^l - 9a^ab
\end{aligned}$$

$$\begin{aligned}
& ^4c^3d*efg*hm + 9*a*b^3c^4d*efg*h*j - 9*a*b^6c*d*ef*k*lm + 18*a \\
& ^4b^2c^2*eg*j*k*lm + 18*a^4b^2c^2d*h*j*k*lm + 18*a^4b^2c^2f*g*h* \\
& k*lm - 36*a^3b^3c^2d*ej*k*lm - 36*a^3b^3c^2*efg*k*lm - 36*a^3b^ \\
& 3c^2d*f*h*k*lm + 9*a^3b^3c^2f*g*h*j*k*l + 9*a^3b^3c^2*eg*h*j*k*lm + \\
& 9*a^3b^3c^2d*g*h*j*lm - 108*a^3b^2c^3d*ef*k*lm + 54*a^2b^4c^2d \\
& *ef*k*lm - 36*a^3b^2c^3d*f*g*j*k*lm + 18*a^3b^2c^3*efg*j*k*l + 18*a \\
& ^3b^2c^3d*f*h*j*k*l + 18*a^3b^2c^3d*e*h*j*k*lm + 18*a^3b^2c^3d*eg* \\
& j*lm - 9*a^2b^4c^2*efg*j*k*l - 9*a^2b^4c^2d*f*h*j*k*l - 9*a^2b^4c \\
& ^2d*e*h*j*k*lm - 9*a^2b^4c^2d*eg*j*lm + 18*a^3b^2c^3*efg*h*k*lm + 1 \\
& 8*a^3b^2c^3d*f*g*h*lm - 9*a^2b^4c^2*efg*h*k*lm - 9*a^2b^4c^2d*f*g \\
& *h*lm - 36*a^2b^3c^3d*ef*j*k*l - 36*a^2b^3c^3d*ef*h*k*lm - 36*a^2b \\
& ^3c^3d*efg*lm + 9*a^2b^3c^3*efg*h*j*k + 9*a^2b^3c^3d*f*g*h*j*l \\
& + 9*a^2b^3c^3d*eg*h*j*lm + 18*a^2b^2c^4d*ef*h*j*k + 18*a^2b^2c^4d \\
& *efg*j*l + 18*a^2b^2c^4d*efg*hm - 9*a^5b^2c*h*j*k^2*lm - 9*a^5b \\
& ^2c*g*j*k*l^2*lm + 27*a^5b^2c*f*j*k*lm^2 - 9*a^4b^3c*f*j^2*k*lm + 9*a \\
& ^3b^4c*f^2*j*k*lm - 18*a^5b*c^2*ej*k^2*lm - 9*a^5b^2c*g*h*k*lm^2 + \\
& 9*a^4b^3c*ej*k^2*lm - 18*a^5b*c^2*f*h*k^2*lm - 18*a^5b*c^2d*j*k*l^ \\
& 2*lm + 9*a^4b^3c*f*h*k^2*lm + 9*a^4b^3c*d*j*k*l^2*lm + 36*a^5b*c^2*e*h* \\
& k*l^2*lm - 36*a^4b*c^3e^2*h*k*lm + 18*a^5b*c^2*f*h*j*l^2*lm - 18*a^5b*c^ \\
& 2f*g*k*l^2*lm - 18*a^4b^3c*e*h*k*l^2*lm + 9*a^4b^3c*f*g*k*l^2*lm + 9*a^3* \\
& b^4c*e*h^2*k*lm - 9*a^2b^5c*e^2*h*k*lm - 54*a^5b*c^2*e*h*j*lm^2 - 18 \\
& *a^5b*c^2*eg*k*lm^2 - 18*a^5b*c^2d*h*k*lm^2 + 18*a^4b^3c*e*h*j*lm^ \\
& 2 - 9*a^4b^3c*f*h*j*k*lm^2 - 9*a^4b^3c*f*g*j*lm^2 + 9*a^4b^3c*e*g*k*l \\
& *lm^2 + 9*a^4b^3c*d*h*k*lm^2 + 18*a^4b*c^3f*g^2*j*k*lm - 18*a^4b*c^3e* \\
& g^2*j*lm + 18*a^3b^4c*d*g*k^2*lm - 9*a^3b^4c*ef*k^2*lm - 9*a^2b^5* \\
& c*d*g^2*k*lm - 18*a^4b*c^3f*g^2*h*lm - 18*a^4b*c^3d*h^2*j*k*lm - 9*a^3 \\
& *b^4c*d*f*k*l^2*lm - 54*a^4b*c^3d*g*j^2*k*lm - 18*a^4b*c^3f*g*h^2*k*lm - \\
& 18*a^4b*c^3e*g*j^2*k*l - 18*a^4b*c^3d*h*j^2*k*l - 18*a^3b^4c*d*g*j*k* \\
& m^2 + 9*a^3b^4c*ef*j*k*lm^2 + 9*a^3b^4c*d*f*j*lm^2 - 9*a^3b^4c*d*ek \\
& *lm^2 - 54*a^3b*c^4d^2*f*j*k*lm + 36*a^4b*c^3d*g*j*k^2*l - 36*a^3b*c^4 \\
& *d^2*g*j*k*l - 18*a^4b*c^3*ef*j*k^2*l + 18*a^4b*c^3d*f*j*k^2*lm - 18*a^3 \\
& *b*c^4d^2*ej*lm + 9*a^3b^4c*f*g*h*j*lm^2 - 9*a*b^5c^2d^2*g*j*k*l + 36 \\
& *a^4b*c^3d*g*h*k^2*lm - 36*a^3b*c^4d^2*g*h*k*lm + 18*a^4b*c^3*eg*h*k^2* \\
& l - 18*a^4b*c^3*ef*h*k^2*lm - 18*a^4b*c^3d*f*j*k*l^2 - 18*a^3b*c^4d^2* \\
& f*h*lm - 18*a^3b*c^4d*e^2*j*k*lm - 9*a*b^5c^2d^2*g*h*k*lm - 54*a^4b*c^3 \\
& *d*g*h*k*l^2 - 54*a^3b*c^4e^2*f*h*j*lm - 18*a^4b*c^3d*f*g*l^2*lm - 18*a^3 \\
& *b*c^4e^2*f*g*k*lm - 54*a^4b*c^3d*f*g*k*lm^2 - 36*a^4b*c^3*efg*j*lm^2 - \\
& 36*a^4b*c^3d*f*h*j*lm^2 + 36*a^3b*c^4e*f^2*g*j*lm + 36*a^3b*c^4d*f^2*h* \\
& j*lm - 18*a^4b*c^3d*e*h*k*lm^2 - 18*a^4b*c^3d*eg*lm^2 + 18*a^3b*c^4e* \\
& f^2*h*j*l - 18*a^3b*c^4e*f^2*g*k*l - 18*a^3b*c^4d*f^2*h*k*l + 18*a^3b* \\
& c^4d*f^2*g*k*lm - 9*a^2b^5c*e*f*g*j*lm^2 - 9*a^2b^5c*d*f*h*j*lm^2 - 54*a^ \\
& 3b*c^4d*f*g^2*j*lm - 18*a^3b*c^4e*f*g^2*j*l - 18*a*b^4c^3d^2*f*g*j*lm + \\
& 9*a*b^4c^3d^2*g*h*j*k + 9*a*b^4c^3d^2*f*g*k*l + 9*a*b^4c^3d^2*eg*k* \\
& m - 9*a*b^4c^3d^2*ef*lm - 18*a^3b*c^4e*f*g^2*h*lm - 18*a^3b*c^4d*f*h \\
& ^2*j*k - 9*a*b^4c^3d*e^2*f*k*lm + 18*a^3b*c^4d*f*g*j^2*k - 18*a^3b*c^4* \\
& d*f*g*h^2*lm - 18*a^3b*c^4d*e*h*j^2*k - 18*a^3b*c^4d*eg*j^2*l + 18*a*b^ \\
& 4c^3d*ef^2*j*lm - 9*a*b^5c^2d*ef*j^2*lm - 9*a*b^4c^3d*ef^2*k*l - 18* \\
& a^2b*c^5d^2*ef*j*l - 9*a*b^3c^4d^2*eg*j*k + 9*a*b^3c^4d^2*ef*j*l - \\
& 54*a^2b*c^5d^2*eg*h*l - 18*a^2b*c^5d^2*ef*h*lm - 18*a^2b*c^5d*e^2*f \\
& *j*k + 18*a*b^3c^4d^2*eg*h*l - 9*a*b^3c^4d^2*f*g*h*k + 9*a*b^3c^4d^2 \\
& *ef*h*lm + 9*a*b^3c^4d*e^2*f*j*k - 36*a^3b*c^4d*ef*h*l^2 + 36*a^2b*c^ \\
& 5d*e^2*f*h*l + 18*a^2b*c^5d*e^2*g*h*k - 18*a^2b*c^5d*e^2*f*g*lm - 18*a* \\
& b^3c^4d*e^2*f*h*l - 9*a*b^5c^2d*ef*h*l^2 + 9*a*b^4c^3d*ef*h^2*l + 9 \\
& *a*b^3c^4d*e^2*f*g*lm - 18*a^2b*c^5d*ef^2*h*k - 18*a^2b*c^5d*ef^2*g* \\
& l + 9*a*b^3c^4d*ef^2*h*k + 9*a*b^3c^4d*ef^2*g*l + 27*a*b^2c^5d^2*ef \\
& *g*k + 9*a*b^4c^3d*ef*g*k^2 - 9*a*b^3c^4d*ef*g^2*k - 9*a*b^2c^5d^2 \\
& *ef*h*j - 9*a*b^2c^5d*e^2*f*g*j - 9*a*b^2c^5d*ef^2*g*h + 72*a^4c^4d \\
& *f*g*j*k*lm + 72*a^4c^4d*ef*k*lm + 9*a*b^6c*d^2*g*k*lm + 9*a*b^6c*d*e \\
& *f*j*lm^2 - 27*a^4b^2c^2f^2*j*k*lm - 9*a^4b^2c^2g^2*h*j*lm + 36*a^3*
\end{aligned}$$

$$\begin{aligned}
& b^3c^2e^2hk^1m - 18a^4b^2c^2eh^2k^1m - 9a^4b^2c^2g^2h^2jk^1m + 18a^4b^2c^2f^2h^2jk^1m + 18a^4b^2c^2f^2g^2jk^1m - 18a^4b^2c^2 \\
& 2eh^2j^2k^1m - 9a^4b^2c^2g^2h^2jk^1m - 9a^3b^3c^2f^2h^2jk^1m - 9a^3b^3c^2f^2g^2jk^1m - 63a^4b^2c^2d^2g^2k^1m + 63a^3b^2c^3d^2g^2k^1m \\
& - 45a^2b^4c^2d^2g^2k^1m + 36a^4b^2c^2ef^2k^1m + 27a^3b^3c^2d^2g^2k^1m - 9a^4b^2c^2f^2h^2jk^2m - 9a^4b^2c^2eh^2jk^2m + \\
& 9a^3b^3c^2eg^2jk^1m - 9a^3b^2c^3d^2h^2jk^1m + 36a^4b^2c^2d^2f^2k^1m + 27a^4b^2c^2eh^2jk^1m - 27a^3b^2c^3e^2h^2jk^1m - 18a^3 \\
& b^2c^3e^2f^2jk^1m - 9a^4b^2c^2f^2g^2jk^1m - 9a^4b^2c^2d^2g^2jk^1m + 9a^3b^3c^2f^2g^2h^1m - 9a^3b^3c^2eh^2jk^1 + 9a^3b^3c^2d^2 \\
& h^2jk^1m - 9a^3b^2c^3e^2g^2jk^1m + 9a^2b^4c^2e^2h^2jk^1 + 72a^4b^2c^2d^2g^2jk^1m + 36a^4b^2c^2d^2e^2k^1m + 27a^4b^2c^2eg^2h^1 \\
& 2m - 27a^4b^2c^2ef^2jk^1m - 27a^4b^2c^2d^2f^2jk^1m - 27a^3b^2c^3e^2g^2h^1m + 27a^3b^2c^3ef^2jk^1m + 27a^3b^2c^3d^2f^2jk^1m + \\
& 18a^3b^3c^2d^2g^2jk^1m + 9a^3b^3c^2f^2g^2h^2k^1m + 9a^3b^3c^2eg^2jk^1m - 9a^3b^3c^2eg^2h^2k^1m - 9a^3b^3c^2ef^2jk^1m + 9a^3b^3 \\
& c^2d^2h^2jk^1 - 9a^3b^3c^2d^2f^2jk^1m + 9a^2b^4c^2e^2g^2h^1m + 36a^2b^3c^3d^2g^2jk^1 - 27a^4b^2c^2f^2g^2h^2jk^1m + 27a^3b^2c^3f^2 \\
& 2g^2h^2jk^1m - 18a^4b^2c^2ef^2h^2k^1m - 18a^3b^3c^2d^2g^2jk^2m - 18a^3b^2c^3d^2g^2h^2k^1m + 18a^2b^3c^3d^2f^2jk^1m - 9a^4b^2c^2eg^2h^2k^1 \\
& m^2 - 9a^4b^2c^2d^2g^2h^1m^2 - 9a^3b^3c^2f^2g^2h^2jk^1m + 9a^3b^3c^2ef^2jk^2m - 9a^3b^2c^3f^2g^2h^2k^1 + 9a^2b^4c^2d^2g^2jk^1 + 9a^2 \\
& b^3c^3d^2e^2jk^1m + 36a^3b^2c^3ef^2g^2jk^1m + 36a^2b^3c^3d^2g^2h^2k^1m - 18a^3b^3c^2d^2g^2h^2k^2m - 18a^3b^2c^3d^2g^2h^2k^1m + 9a^3b^3 \\
& c^2ef^2h^2k^2m + 9a^3b^3c^2d^2f^2jk^1m - 9a^3b^2c^3f^2g^2h^2jk^1 - 9a^3b^2c^3eg^2h^2jk^1m - 9a^2b^4c^2ef^2g^2jk^1m + 9a^2b^4c^2d^2g^2 \\
& h^2k^1m + 9a^2b^3c^3d^2f^2h^1m + 9a^2b^3c^3d^2e^2jk^1m + 36a^3b^2c^3d^2f^2h^2k^1m + 36a^3b^2c^3d^2e^2jk^1m + 18a^3b^3c^2d^2g^2h^2k^1m^2 \\
& + 18a^3b^2c^3eg^2h^2jk^1 + 18a^3b^2c^3ef^2h^2k^1 - 18a^3b^2c^3ef^2h^2jk^1m - 18a^3b^2c^3d^2g^2h^2k^1 + 18a^3b^2c^3d^2e^2h^2k^1m + 18a^2 \\
& b^3c^3e^2f^2h^2jk^1m - 9a^3b^3c^2eg^2h^2jk^1m - 9a^3b^3c^2ef^2h^2k^1m^2 + 9a^3b^3c^2d^2f^2g^1m^2 - 9a^3b^3c^2d^2e^2h^1m^2 - 9a^3b^2c^3 \\
& f^2g^2h^2jk^1 - 9a^3b^2c^3d^2g^2h^2jk^1m - 9a^2b^4c^2d^2f^2h^2k^1m - 9a^2b^4c^2d^2e^2jk^1 - 9a^2b^3c^3e^2f^2h^2k^1 + 9a^2b^3c^3e^2f^2g^2k^1m \\
& - 9a^2b^3c^3d^2e^2h^1m + 36a^3b^3c^2ef^2g^2jk^1m + 36a^3b^3c^2d^2f^2h^2jk^1m + 18a^3b^3c^2d^2f^2g^2k^1m^2 - 18a^3b^2c^3ef^2g^2jk^1m - 18a^3b^2c^3 \\
& d^2f^2h^2jk^1m - 18a^2b^3c^3d^2f^2h^2jk^1m + 9a^3b^3c^2d^2e^2h^2k^1m + 9a^3b^3c^2d^2e^2g^1m^2 - 9a^3b^2c^3eg^2h^2jk^1 - 9a^3b^2c^3d^2g^2h^2jk^1 \\
& + 9a^2b^4c^2ef^2g^2jk^1m + 9a^2b^4c^2d^2f^2h^2jk^1m + 9a^2b^3c^3ef^2g^2k^1 + 9a^2b^3c^3d^2f^2h^2k^1 + 72a^2b^2c^4d^2f^2g^2jk^1m + 36a^2b^2 \\
& c^4d^2ef^2k^1m + 27a^3b^2c^3d^2g^2h^2jk^2 + 27a^3b^2c^3d^2f^2g^2k^1 + 27a^3b^2c^3d^2e^2g^2k^1m - 27a^2b^2c^4d^2g^2h^2jk^1 - 27a^2b^2c^4d^2 \\
& f^2g^2k^1 - 27a^2b^2c^4d^2eg^2k^1m + 18a^2b^3c^3d^2f^2g^2jk^1m - 18a^2b^2c^4d^2e^2h^2k^1 - 9a^3b^2c^3ef^2h^2jk^2 + 9a^2b^3c^3ef^2g^2jk^1 - 9a^2b^3c^3 \\
& d^2g^2h^2jk^1 - 9a^2b^3c^3d^2f^2g^2k^1 - 9a^2b^3c^3d^2e^2g^2k^1m - 9a^2b^2c^4d^2f^2h^2jk^1 - 9a^2b^2c^4d^2e^2h^2jk^1m + 36a^2b^2c^4d^2e^2f^2k^1m \\
& - 27a^3b^2c^3d^2e^2h^2jk^1 + 27a^2b^2c^4d^2e^2h^2jk^1 - 18a^3b^2c^3d^2e^2g^2k^1m - 63a^2b^2c^4d^2e^2f^2jk^1m - 45a^2b^4c^2d^2e^2f^2jk^1m + 36a^2b^2c^4d^2e^2f^2k^1 \\
& - 27a^3b^2c^3ef^2g^2h^1m + 27a^2b^2c^4d^2e^2f^2g^2h^1m + 9a^2b^4c^2ef^2g^2h^1m - 9a^2b^3c^3ef^2g^2h^2k^1 + 9a^2b^3c^3d^2e^2g^2jk^1 + 18a^2b^2c^4d^2e^2g^2 \\
& 2jk^1 - 9a^3b^2c^3d^2e^2g^2h^2m^2 - 9a^2b^3c^3d^2e^2g^2jk^2 - 9a^2b^2c^4e^2f^2g^2h^2k^1 - 9a^2b^2c^4d^2e^2f^2g^2h^2k^1 - 18a^2b^2c^4d^2e^2g^2h^1 \\
& - 9a^2b^3c^3d^2f^2g^2h^2k^2 - 9a^2b^2c^4e^2f^2g^2h^2k^1 - 9a^2b^2c^4d^2e^2f^2g^2h^2k^1 - 9a^2b^3c^3d^2f^2g^2h^2k^2 - 9a^2b^2c^4d^2e^2f^2g^2h^2k^1 - 9a^2b^2c^4d^2e^2f^2g^2h^2k^1
\end{aligned}$$

$$\begin{aligned}
&g^2*h*j + 36*a^2*b^3*c^3*d*e*f*h^2 - 18*a^2*b^2*c^4*d*e*f*h^2*1 - 9*a^2*b^2*c^4*d*f*g*h^2*j - 9*a^2*b^2*c^4*d*e*g*h^2*j^2 - 27*a^2*b^2*c^4*d*e*f*g*k^2 \\
&+ 18*a^2*b^2*c^4*d^2*f*h*k^2 - 9*a^2*b^3*c^3*e*f*g^2*k^2 - 9*a^2*b^2*c^4*e^2*f*h*j^2 - 9*a^2*b^2*c^4*d*f^2*h^2*k + 45*a^2*b^3*c^3*d*e*f^2*m^2 + 36*a^2*b^2*c^4*d^2*e*g*1^2 + 9*a^2*b^3*c^3*d*e*g^2*1^2 + 9*a^2*b^2*c^4*e*f^2*g*j^2 + 9*a^2*b^2*c^4*d*f^2*h*j^2 - 9*a^2*b^2*c^4*d*e^2*h*k^2 - 36*a^2*b^2*c^4*d*e^2*f*1^2 - 9*a^2*b^2*c^4*d*f*g^2*j^2 - 12*a^6*b*c*h*k*1^3*m + 3*a*b^6*c*e^3*k*1*m + 3*a*b^6*c*d*e*f*1^3 - 12*a*b*c^6*d*e^3*f*h + 9*a^5*b^2*c*h^2*k*1^2*m + 18*a^5*b*c^2*g^2*k^2*1*m - 9*a^5*b^2*c*h^2*j*1*m^2 + 9*a^5*b*c^2*h^2*j^2*1*m - 9*a^4*b^3*c*g^2*k^2*1*m - 3*a^4*b^2*c^2*g^3*k*1*m + 18*a^5*b*c^2*f^2*k*1*m^2 + 15*a^3*b^3*c^2*f^3*k*1*m + 9*a^5*b^2*c*h*j^2*k*m^2 + 9*a^5*b^2*c*g*j^2*1*m^2 - 9*a^5*b^2*c*f*k^2*1^2*m + 9*a^5*b*c^2*h^2*j*k^2*m + 9*a^5*b*c^2*g^2*j*1^2*m - 9*a^4*b^3*c*f^2*k*1*m^2 + 36*a^3*b^2*c^3*e^3*k*1*m - 27*a^5*b*c^2*g^2*j*k*m^2 - 18*a^5*b*c^2*h^2*j*k*1^2 - 18*a^2*b^4*c^2*e^3*k*1*m - 9*a^5*b^2*c*g*j*k^2*m^2 - 9*a^5*b^2*c*e*k^2*1*m^2 + 9*a^5*b*c^2*h*j^2*k^2*1 + 9*a^5*b*c^2*g*j^2*k^2*m + 9*a^4*b^3*c*g^2*j*k*m^2 + 9*a^3*b^4*c*e^2*k*1^2*m + 3*a^4*b^2*c^2*h^3*j*k*1 - 54*a^4*b*c^3*d^2*k^2*1*m - 51*a^2*b^3*c^3*d^3*k*1*m - 27*a^4*b*c^3*e^2*j^2*1*m - 18*a^5*b*c^2*g*h^2*1^2*m - 9*a^5*b^2*c*e*j*1^2*m^2 - 9*a^5*b^2*c*d*k*1^2*m^2 + 9*a^5*b*c^2*g^2*h*1*m^2 + 9*a^5*b*c^2*g*j^2*k*1^2 + 9*a^5*b*c^2*e*j^2*1^2*m - 9*a^3*b^4*c*e^2*j*1*m^2 - 9*a^2*b^5*c*d^2*k^2*1*m + 3*a^4*b^2*c^2*g*h^3*1*m - 3*a^3*b^3*c^2*g^3*j*k*1 + 18*a^5*b*c^2*e*j^2*k*m^2 + 18*a^5*b*c^2*d*j^2*1*m^2 + 18*a^4*b*c^3*f^2*j^2*k*1 + 9*a^5*b*c^2*g*h^2*k*m^2 + 9*a^5*b*c^2*f*h^2*1*m^2 + 9*a^5*b*c^2*f*j*k^2*1^2 - 9*a^4*b^3*c*e*j^2*k*m^2 - 9*a^4*b^3*c*d*j^2*1*m^2 + 9*a^4*b^2*c^2*f*j^3*k*1 + 9*a^4*b^2*c^2*e*j^3*k*m + 9*a^4*b^2*c^2*d*j^3*1*m + 9*a^4*b*c^3*f^2*h^2*1*m + 9*a^4*b*c^3*e^2*j*k^2*m + 9*a^4*b*c^3*d^2*j*1^2*m - 3*a^3*b^3*c^2*g^3*h*k*m - 3*a^3*b^2*c^3*f^3*j*k*1 + 3*a^2*b^4*c^2*f^3*j*k*1 + 45*a^4*b*c^3*d^2*j*k*m^2 - 27*a^5*b*c^2*d*j*k^2*m^2 + 18*a^5*b*c^2*g*h*j^2*m^2 + 18*a^4*b*c^3*e^2*j*k*1^2 + 15*a^2*b^3*c^3*e^3*j*k*1 - 12*a^3*b^2*c^3*f^3*h*k*m - 12*a^3*b^2*c^3*f^3*g*1*m + 9*a^5*b*c^2*g*h*k^2*1^2 - 9*a^4*b^3*c*g*h*j^2*m^2 + 9*a^4*b^3*c*d*j*k^2*m^2 + 9*a^4*b^2*c^2*g*h*j^3*m + 9*a^4*b*c^3*g^2*h^2*k*1 + 9*a^4*b*c^3*g^2*h^2*j*m + 9*a^2*b^5*c*d^2*j*k*m^2 + 3*a^2*b^4*c^2*f^3*h*k*m + 3*a^2*b^4*c^2*f^3*g*1*m + 36*a^2*b^2*c^4*d^3*j*k*1 + 18*a^4*b*c^3*e^2*g*1^2*m + 15*a^2*b^3*c^3*e^3*g*1*m + 12*a^4*b^2*c^2*d*j*k^3*1 + 9*a^5*b*c^2*f*g*k^2*m^2 + 9*a^5*b*c^2*e*h*k^2*m^2 + 9*a^4*b*c^3*g^2*h*j^2*1 + 9*a^4*b*c^3*f^2*h*k^2*1 + 9*a^4*b*c^3*f^2*g*k^2*m + 9*a^4*b*c^3*d^2*h*1*m^2 - 9*a^3*b^3*c^2*e*h^3*k*m + 6*a^2*b^3*c^3*e^3*h*k*m + 45*a^4*b*c^3*e^2*h*j*m^2 + 36*a^2*b^2*c^4*d^3*h*k*m - 33*a^3*b^2*c^3*d*g^3*1*m - 27*a^4*b*c^3*f^2*h*j*1^2 - 27*a^4*b*c^3*e^2*f*1*m^2 - 27*a^4*b*c^3*e*h^2*j^2*m - 18*a^4*b*c^3*g^2*h*j*k^2 - 18*a^4*b*c^3*f*g^2*k^2*1 - 18*a^4*b*c^3*e*g^2*k^2*m - 18*a^3*b*c^4*d^2*g^2*1*m + 12*a^4*b^2*c^2*d*h*k^3*m + 9*a^5*b*c^2*e*f*1^2*m^2 + 9*a^5*b*c^2*d*g*1^2*m^2 + 9*a^4*b*c^3*f^2*g*k*1^2 + 9*a^4*b*c^3*e^2*g*k*m^2 + 9*a^4*b*c^3*g*h^2*j^2*k + 9*a^4*b*c^3*f*h^2*j^2*1 + 9*a^4*b*c^3*e*f^2*1^2*m - 9*a^3*b^4*c*e*h^2*j*m^2 + 9*a^3*b*c^4*e^2*f^2*1*m + 9*a^2*b^5*c*e^2*h*j*m^2 + 9*a^2*b^4*c^2*d*g^3*1*m - 9*a^2*b^2*c^4*d^3*g*1*m - 9*a*b^5*c^2*d^2*g^2*1*m - 6*a^4*b^2*c^2*e*h*k^3*1 - 6*a^3*b^2*c^3*f*g^3*j*m + 3*a^4*b^2*c^2*g*h*j*k^3 + 3*a^4*b^2*c^2*f*g*k^3*1 + 3*a^4*b^2*c^2*e*g*k^3*m + 3*a^3*b^2*c^3*g^3*h*j*k + 3*a^3*b^2*c^3*f*g^3*k*1 + 3*a^3*b^2*c^3*e*g^3*k*m - 27*a^3*b*c^4*d^2*h^2*k*1 + 18*a^4*b*c^3*e*f^2*k*m^2 + 18*a^4*b*c^3*d*f^2*1*m^2 + 9*a^4*b*c^3*f*h^2*j*k^2 + 9*a^4*b*c^3*f*g^2*j*1^2 + 9*a^4*b*c^3*e*g^2*k*1^2 + 9*a^4*b*c^3*d*h^2*k^2*1 + 9*a^3*b^4*c*e*g*j^2*m^2 + 9*a^3*b^4*c*d*h*j^2*m^2 - 9*a^3*b^3*c^2*e*g*j^3*m - 9*a^3*b^3*c^2*d*h*j^3*m + 9*a^3*b*c^4*e^2*g^2*k*1 + 9*a^3*b*c^4*e^2*g^2*j*m + 9*a^3*b*c^4*d^2*h^2*j*m - 3*a^2*b^3*c^3*f^3*h*j*k - 3*a^2*b^3*c^3*f^3*g*j*1 - 3*a^2*b^3*c^3*e*f^3*k*m - 3*a^2*b^3*c^3*d*f^3*1*m + 45*a^4*b*c^3*d*g^2*j*m^2 + 45*a^3*b*c^4*d^2*g*j^2*m + 24*a^4*b^2*c^2*d*g*k*1^3 + 24*a^2*b^2*c^4*e^3*f*j*m + 18*a^4*b*c^3*f^2*g*h*m^2 + 18*a^4*b*c^3*d*h^2*j*1^2 + 18*a^3*b*c^4*e^2*h^2*j*k - 12*a^4*b^2*c^2*e*g*j*1^3 - 12*a^4*b^2*c^2*e*f*k*1^3 - 12*a^4*b^2*c^2*d*e*1^3*m - 12*a^2*b^2*c^4*e^3*g*j*1 - 12*a^2*b^2*c^4*e^3*f*k*1 - 12*a^2*b^2*c^4*d*e^3*
\end{aligned}$$

$$\begin{aligned}
& 1*m + 9*a^4*b*c^3*f*g*j^2*k^2 + 9*a^4*b*c^3*e*h*j^2*k^2 + 9*a^3*b^2*c^3*e*h^3*j*k + 9*a^3*b^2*c^3*d*h^3*j*1 + 9*a^3*b*c^4*f^2*g^2*j*k + 9*a^3*b*c^4*d^2*h*j^2*1 + 9*a^2*b^5*c*d*g^2*j*m^2 + 9*a*b^5*c^2*d^2*g*j^2*m - 3*a^4*b^2*c^2*d*h*j*1^3 - 3*a^2*b^3*c^3*f^3*g*h*m - 3*a^2*b^2*c^4*e^3*h*j*k + 18*a^4*b*c^3*f*g*h^2*1^2 + 18*a^3*b*c^4*e^2*g*h^2*m + 18*a^3*b*c^4*d^2*h*j*k^2 + 18*a^3*b*c^4*d^2*f*k^2*1 + 18*a^3*b*c^4*d^2*e*k^2*m + 9*a^4*b*c^3*e*g^2*h*m^2 + 9*a^4*b*c^3*e*f*j^2*1^2 + 9*a^4*b*c^3*d*g*j^2*1^2 + 9*a^3*b^2*c^3*f*g*h^3*1 + 9*a^3*b^2*c^3*e*g*h^3*m + 9*a^3*b*c^4*f^2*g^2*h*1 + 9*a^3*b*c^4*e^2*g*j^2*k + 9*a^3*b*c^4*e^2*f*j^2*1 - 9*a^2*b^3*c^3*d*g^3*j*1 + 9*a*b^4*c^3*d^2*g^2*j*1 - 3*a^4*b^2*c^2*f*g*h*1^3 - 3*a^3*b^3*c^2*e*g*j*k^3 - 3*a^3*b^3*c^2*d*h*j*k^3 - 3*a^3*b^3*c^2*d*f*k^3*1 - 3*a^3*b^3*c^2*d*e*k^3*m - 3*a^2*b^2*c^4*e^3*g*h*m - 33*a^3*b^2*c^3*d*e*j^3*m - 27*a^4*b*c^3*e*f*h^2*m^2 - 27*a^3*b*c^4*d^2*e*k*1^2 - 18*a^4*b*c^3*d*e*j^2*m^2 - 18*a^3*b*c^4*e*f^2*j^2*k - 18*a^3*b*c^4*d*f^2*j^2*1 - 9*a^4*b^2*c^2*d*e*j*m^3 + 9*a^4*b*c^3*d*g*h^2*m^2 + 9*a^4*b*c^3*d*e*k^2*1^2 + 9*a^3*b*c^4*f^2*g*h^2*k + 9*a^3*b*c^4*e^2*f*j*k^2 + 9*a^3*b*c^4*d^2*f*j*1^2 + 9*a^3*b*c^4*e*f^2*h^2*m + 9*a^3*b*c^4*d*e^2*k^2*1 - 9*a^2*b^5*c*d*e*j^2*m^2 + 9*a^2*b^4*c^2*d*e*j^3*m - 9*a^2*b^3*c^3*d*g^3*h*m + 9*a^2*b*c^5*d^2*e^2*k*1 + 9*a^2*b*c^5*d^2*e^2*j*m + 9*a*b^4*c^3*d^2*g^2*h*m - 6*a^3*b^2*c^3*d*g*j^3*k - 3*a^3*b^3*c^2*f*g*h*k^3 + 3*a^3*b^2*c^3*e*f*j^3*k + 3*a^3*b^2*c^3*d*f*j^3*1 + 3*a^2*b^2*c^4*e*f^3*j*k + 3*a^2*b^2*c^4*d*f^3*j*1 + 45*a^3*b*c^4*d^2*g*h*1^2 + 36*a^4*b^2*c^2*e*f*g*m^3 + 36*a^4*b^2*c^2*d*f*h*m^3 - 27*a^3*b*c^4*e^2*g*h*k^2 - 27*a^3*b*c^4*d*g^2*h^2*1 - 18*a^3*b*c^4*f^2*g*h*j^2 + 18*a^3*b*c^4*d*e^2*j*1^2 + 15*a^3*b^3*c^2*d*e*j*1^3 + 12*a^2*b^2*c^4*e*f^3*g*m + 12*a^2*b^2*c^4*d*f^3*h*m + 9*a^3*b*c^4*f*g^2*h^2*j + 9*a^3*b*c^4*e*g^2*h^2*k + 9*a^3*b*c^4*d*f^2*j*k^2 + 9*a^2*b*c^5*d^2*f^2*j*k + 9*a*b^5*c^2*d^2*g*h*1^2 - 9*a*b^4*c^3*d^2*g*h^2*1 - 6*a^2*b^2*c^4*e*f^3*h*1 + 3*a^3*b^2*c^3*f*g*h*j^3 + 3*a^2*b^2*c^4*f^3*g*h*j + 45*a^3*b*c^4*d^2*f*g*m^2 - 27*a^2*b*c^5*d^2*f^2*g*m + 18*a^3*b*c^4*e^2*f*g*1^2 + 15*a^3*b^3*c^2*e*f*g*1^3 - 12*a^3*b^2*c^3*d*e*j*k^3 + 9*a^3*b*c^4*d^2*e*h*m^2 + 9*a^3*b*c^4*e*g^2*h*j^2 + 9*a^3*b*c^4*e*f^2*h*k^2 - 9*a^2*b^3*c^3*d*f*h^3*1 + 9*a^2*b*c^5*d^2*f^2*h*1 + 9*a*b^5*c^2*d^2*f*g*m^2 + 9*a*b^3*c^4*d^2*f^2*g*m + 6*a^3*b^3*c^2*d*f*h*1^3 + 3*a^2*b^4*c^2*d*e*j*k^3 + 18*a^3*b*c^4*e*f*g^2*k^2 + 18*a^2*b*c^5*d^2*g^2*h*j + 18*a^2*b*c^5*d^2*f*g^2*1 + 18*a^2*b*c^5*d^2*e*g^2*m - 12*a^3*b^2*c^3*d*f*h*k^3 + 9*a^3*b*c^4*e*f*h^2*j^2 + 9*a^3*b*c^4*d*f^2*g*1^2 + 9*a^3*b*c^4*d*e^2*g*m^2 + 9*a^3*b*c^4*d*g*h^2*j^2 + 9*a^2*b^2*c^4*e*f*g^3*k + 9*a^2*b^2*c^4*d*g^3*h*j + 9*a^2*b^2*c^4*d*f*g^3*1 + 9*a^2*b^2*c^4*d*e*g^3*m + 9*a^2*b*c^5*e^2*f^2*h*j + 9*a^2*b*c^5*e^2*f^2*g*k - 9*a*b^3*c^4*d^2*g^2*h*j - 9*a*b^3*c^4*d^2*f*g^2*1 - 9*a*b^3*c^4*d^2*e*g^2*m - 3*a^3*b^2*c^3*e*f*g*k^3 + 3*a^2*b^4*c^2*e*f*g*k^3 + 3*a^2*b^4*c^2*d*f*h*k^3 - 54*a^3*b*c^4*d*e*f^2*m^2 - 51*a^3*b^3*c^2*d*e*f*m^3 - 27*a^3*b*c^4*d*e*g^2*1^2 + 9*a^3*b*c^4*d*e*h^2*k^2 + 9*a^2*b*c^5*e^2*f*g^2*j + 9*a^2*b*c^5*d^2*f*h^2*j + 9*a^2*b*c^5*d^2*e*h^2*k + 9*a^2*b*c^5*d*e^2*g^2*1 - 9*a*b^5*c^2*d*e*f^2*m^2 - 9*a*b^4*c^3*d^2*e*g*1^2 - 9*a*b^2*c^5*d^2*e^2*g*1 - 9*a*b^2*c^5*d^2*e^2*f*m - 3*a^2*b^3*c^3*e*f*g*j^3 - 3*a^2*b^3*c^3*d*f*h*j^3 + 36*a^3*b^2*c^3*d*e*f*1^3 - 27*a^2*b*c^5*d^2*f*g*j^2 - 18*a^2*b^4*c^2*d*e*f*1^3 - 18*a^2*b*c^5*d*e^2*h^2*j + 9*a^2*b*c^5*d^2*e*h*j^2 + 9*a^2*b*c^5*d*f^2*g^2*j + 9*a*b^4*c^3*d*e^2*f*1^2 + 9*a*b^3*c^4*d^2*f*g*j^2 - 9*a*b^2*c^5*d^2*f^2*g*j - 9*a*b^2*c^5*d^2*e*f^2*1 + 3*a^2*b^2*c^4*d*e*h^3*j - 18*a^2*b*c^5*e^2*f*g*h^2 + 18*a^2*b*c^5*d^2*e*f*k^2 + 15*a^2*b^3*c^3*d*e*f*k^3 + 9*a^2*b*c^5*e*f^2*g^2*h + 9*a^2*b*c^5*d*e^2*g*j^2 - 9*a*b^3*c^4*d^2*e*f*k^2 + 9*a*b^2*c^5*d^2*e*g^2*j - 9*a*b^2*c^5*d*e^2*f^2*k + 3*a^2*b^2*c^4*e*f*g*h^3 + 18*a^2*b*c^5*d*e*f^2*j^2 + 9*a^2*b*c^5*d*f^2*g*h^2 - 9*a*b^3*c^4*d*e*f^2*j^2 + 9*a*b^2*c^5*d^2*f*g^2*h - 3*a^2*b^2*c^4*d*e*f*j^3 + 9*a^2*b*c^5*d*e*g^2*h^2 - 9*a*b^2*c^5*d^2*e*g*h^2 + 9*a*b^2*c^5*d*e^2*f*h^2 - 36*a^6*c^2*f*j*k*1*m^2 + 36*a^5*c^3*f^2*j*k*1*m - 36*a^5*c^3*f*h^2*j*1*m + 36*a^5*c^3*e*h*j^2*1*m - 18*a^6*b*c*j^2*k*1*m^2 + 9*a^6*b*c*j*k^2*1^2*m + 3*a^5*b^2*c*j^3*k*1*m - 36*a^5*c^3*f*g*j*k^2*m - 36*a^5*c^3*e*f*k^2*1*m + 36*a^5*c^3*d*g*k^2*1*m - 36*a^4*c^4*d^2*g*k*1*m - 36*a^5*c^3*e*h*j*k*1^2 - 36*a^5*c^3*e*f*j*1^2*m - 36*a^5*c^3*d*f*k*1^2*m + 36*a^4*c^4*e^2*h*j*k*1 +
\end{aligned}$$



$$\begin{aligned}
& 36a^4c^4e^2fj^1m + 9a^6b^3c^2h^3k^1m^2 - 3a^4b^3c^3h^3k^1m - 36 \\
& a^5c^3e^2g^2h^1m^2 + 36a^5c^3e^2f^2j^1m^2 - 36a^5c^3d^2g^2j^1m^2 + 36 \\
& a^5c^3d^2f^2j^1m^2 - 36a^5c^3d^2e^2k^1m^2 + 36a^4c^4e^2g^2h^1m - 36 \\
& a^4c^4e^2f^2j^1m - 36a^4c^4d^2f^2j^1m + 9a^6b^3c^2h^3j^1m^2 + 9a \\
& ^6b^3c^2g^2k^1m^2 + 9a^5b^2c^2g^2k^3m + 3a^3b^4c^2g^3k^1m + 36a^5 \\
& c^3f^2g^2h^1m^2 + 36a^5c^3e^2f^2h^1m^2 - 36a^4c^4f^2g^2h^1m - 36a^4 \\
& c^4e^2f^2h^1m - 24a^4b^3c^3f^3k^1m - 12a^5b^3c^2h^3j^3k^1m - 12a^5 \\
& b^3c^2g^2j^3m - 3a^2b^5c^3f^3k^1m - 36a^4c^4e^2g^2h^1m - 36a^4c \\
& ^4e^2f^2g^2m + 12a^5b^2c^2e^2k^1m^3 - 6a^5b^2c^2f^2j^1m^3 + 3a^5b^2 \\
& c^2h^3j^3k^1m^3 + 48a^3b^3c^4d^3k^1m + 36a^4c^4e^2f^2h^2j^1m + 36a^4c^4 \\
& d^2g^2h^2k^1 - 36a^4c^4d^2f^2h^2k^1m - 36a^4c^4d^2e^2j^2k^1 + 24a^5b^3 \\
& c^2d^2k^3m + 21a^5b^3c^2d^3k^1m - 12a^5b^3c^2g^2j^3k^1 - 9a^4b^3 \\
& c^2d^2k^3m + 6a^5b^3c^2f^2j^3k^1m + 3a^5b^2c^2g^2h^1m^3 - 36a^4c^4e \\
& ^2f^2h^1j^2m - 12a^5b^3c^2g^2h^1k^3m - 3a^5b^2c^2e^2j^3k^1m^3 - 3a^5b^2c^2d \\
& ^2j^1m^3 - 36a^4c^4d^2g^2h^1j^2k^1 - 36a^4c^4d^2f^2g^2k^2m - 36a^4c^4d^2e \\
& ^2h^1k^2m - 36a^4c^4d^2e^2g^2k^2m + 36a^3c^5d^2g^2h^1j^2k^1 + 36a^3c^5d^2 \\
& f^2g^2k^1 - 36a^3c^5d^2f^2g^2j^1m + 36a^3c^5d^2e^2h^1k^1 + 36a^3c^5d^2 \\
& e^2g^2k^1m - 36a^3c^5d^2e^2f^1m + 24a^5b^2c^2e^2h^1m^3 - 24a^3b^3c^4e \\
& ^3j^2k^1 - 12a^5b^2c^2f^2h^1k^1m^3 - 12a^5b^2c^2f^2g^1m^3 - 3a^5b^2c^2g^2 \\
& h^1j^1m^3 - 3a^4b^3c^2e^2j^2k^1m^3 - 3a^4b^5c^2e^3j^2k^1 + 36a^4c^4d^2e^2h^1 \\
& j^1m^2 + 36a^4c^4d^2e^2g^2k^1m^2 - 36a^3c^5d^2e^2h^1j^1m - 36a^3c^5d^2e^2 \\
& g^2k^1 - 36a^3c^5d^2e^2f^1k^1m + 24a^4b^3c^3e^2h^3k^1m - 24a^3b^3c^4e^3 \\
& g^1m - 18a^4b^3c^3d^3j^2k^1 - 12a^4b^3c^3g^2h^3j^1 - 12a^4b^3c^3f^2h^3 \\
& k^1 - 12a^4b^3c^3d^2h^3m + 12a^3b^3c^4e^3h^1k^1m + 6a^4b^3c^3f^2h^3 \\
& j^1m - 3a^4b^3c^3g^2h^1j^1m^3 - 3a^4b^3c^3f^2h^1k^1m^3 - 3a^4b^3c^3e^2g^1m^3 \\
& m - 3a^4b^3c^3d^2h^1m^3 - 3a^4b^5c^2e^3h^1k^1m - 3a^4b^5c^2e^3g^1m + \\
& 36a^4c^4e^2f^2g^2h^1m^2 - 36a^4c^4d^2e^2f^2j^1m^2 - 36a^3c^5e^2f^2g^2h^1 - \\
& 36a^3c^5d^2f^2g^2j^1k^1 - 36a^3c^5d^2e^2f^2k^1 + 36a^3c^5d^2e^2f^2j^1m - \\
& 18a^4b^3c^3d^3h^1k^1m - 9a^4b^3c^3d^3g^1m + 30a^5b^3c^2d^2g^2k^1m^3 - \\
& 30a^4b^3c^3d^2g^2k^1m^3 - 24a^5b^3c^2e^2f^2k^1m^3 - 24a^5b^3c^2d^2f^1m^3 + \\
& 24a^4b^3c^3e^2g^2j^3m + 24a^4b^3c^3d^2h^1j^3m + 15a^4b^3c^3e^2f^2k^1m^3 + \\
& 15a^4b^3c^3d^2f^1m^3 + 12a^5b^3c^2e^2g^2j^1m^3 + 12a^5b^3c^2d^2h^1j^1m^3 - \\
& 12a^4b^3c^3f^2h^1j^3k^1 - 12a^4b^3c^3f^2g^2j^3m + 6a^4b^3c^3e^2g^2j^1m^3 + 6 \\
& a^4b^3c^3d^2h^1j^1m^3 + 6a^4b^3c^3e^2h^1j^3m + 36a^3c^5d^2e^2g^2h^1 - 24a \\
& ^5b^3c^2f^2g^2h^1m^3 + 15a^4b^3c^3f^2g^2h^1m^3 - 9a^4b^6c^2d^2g^2j^1m^2 - 6a^ \\
& ^3b^4c^2d^2g^2k^1m^3 - 6a^4b^3c^3e^3f^2j^1m + 3a^3b^4c^2e^2g^2j^1m^3 + 3a^3b \\
& ^4c^2e^2f^2k^1m^3 + 3a^3b^4c^2d^2h^1j^1m^3 + 3a^3b^4c^2d^2e^1m^3 + 3a^3b^4c^2 \\
& e^3h^1j^2k^1 + 3a^3b^4c^3e^3g^2j^1m + 3a^3b^4c^3e^3f^2k^1 + 3a^3b^4c^3d \\
& e^3m - 36a^3c^5d^2e^2g^2h^2k^1 + 30a^2b^3c^5d^3f^2j^1m - 30a^3b^3c^4d \\
& ^3f^2j^1m + 24a^3b^3c^4d^2g^3j^1 - 24a^2b^3c^5d^3h^1j^2k^1 - 24a^2b^3c^5d \\
& ^3f^2k^1 - 24a^2b^3c^5d^3e^2k^1m + 15a^3b^3c^4d^3h^1j^2k^1 + 15a^3b^3c^4d \\
& ^3f^2k^1 + 15a^3b^3c^4d^3e^2k^1m - 12a^3b^3c^4e^2g^3j^2k^1 + 12a^2b^3c^5d \\
& ^3g^2j^1m + 6a^3b^3c^4d^3g^2j^1m + 3a^3b^4c^2f^2g^2h^1m^3 + 3a^3b^4c^3e^3 \\
& g^2h^1m + 24a^3b^3c^4d^2g^3h^1m - 12a^3b^3c^4f^2g^3h^1k^1 + 12a^2b^3c^5d^3 \\
& g^2h^1m - 9a^3b^4c^2d^2e^2j^1m^3 + 6a^3b^3c^4e^2g^3h^1m + 6a^3b^3c^4d^3g^2h^1 \\
& m + 36a^3c^5d^2e^2f^2g^2k^2 - 36a^2c^6d^2e^2f^2g^2k^1 - 24a^4b^3c^3d^2e^2j^1 \\
& ^3 - 18a^3b^4c^2e^2f^2g^2m^3 - 18a^3b^4c^2d^2f^2h^1m^3 - 3a^2b^5c^2d^2e^2j^1 \\
& ^3 - 3a^3b^3c^4d^2e^3j^1m - 24a^4b^3c^3e^2f^2g^1m^3 + 24a^3b^3c^4d^2f^2h^3m \\
& + 12a^4b^3c^3d^2f^2h^1m^3 - 12a^3b^3c^4e^2g^2h^3j^1 - 12a^3b^3c^4e^2f^2h^3k^1 \\
& - 12a^3b^3c^4d^2e^2h^3m - 12a^3b^2c^5d^3e^2j^2k^1 + 6a^3b^3c^4d^2g^2h^3k^1 \\
& - 3a^2b^5c^2e^2f^2g^1m^3 - 3a^2b^5c^2d^2f^2h^1m^3 - 3a^3b^3c^4e^3g^2h^1j^1 - 3 \\
& a^3b^3c^4e^3f^2h^1k^1 - 3a^3b^3c^4e^3f^2g^1m - 3a^3b^3c^4d^2e^3h^1m + 24a \\
& ^2b^2c^5d^3e^2h^1m - 12a^2b^2c^5d^3f^2h^1k^1 - 3a^2b^2c^5d^3g^2h^1j^1 - 3a^2b \\
& ^2c^5d^3f^2g^1m - 3a^2b^2c^5d^3e^2g^1m + 48a^4b^3c^3d^2e^2f^1m^3 + 24a^2b^2 \\
& c^5d^2e^2f^3m + 21a^2b^5c^2d^2e^2f^1m^3 - 12a^2b^2c^5e^2f^3g^2j^1 - 12a^2b^2 \\
& c^5d^2f^3h^1j^1 - 9a^2b^3c^4d^2e^2f^3m + 6a^2b^2c^5d^2f^3g^2k^1 + 12a^2b^2c^5 \\
& d^2e^3f^1m - 6a^2b^2c^5d^2e^3g^2k^1 + 3a^2b^2c^5d^2e^3h^1j^1 - 24a^3b^3c^4 \\
& d^2e^2f^2k^3 - 12a^2b^2c^5d^2e^2g^3j^1 - 3a^2b^5c^2d^2e^2f^2k^3 + 3a^2b^2c^5e^2 \\
& e^3f^2g^2h^1 - 12a^2b^2c^5d^2f^2g^3h^1 + 9a^2b^2c^5d^2e^2f^3j^1 + 9a^2b^2c^6d^2e^2
\end{aligned}$$

$$\begin{aligned}
& e^2 f^j + 3 a^2 b^4 c^3 d e f^j + 9 a^2 b^6 c^6 d^2 e^2 g^h + 9 a^2 b^6 c^6 d^2 e^2 f^2 h - 3 a^2 b^3 c^4 d e f^3 h - 18 a^2 b^6 c^6 d^2 e^2 f^2 g^2 + 9 a^2 b^6 c^6 d^2 e^2 f^2 g + 3 a^2 b^2 c^5 d e f^3 g - 36 a^4 b^2 c^2 e^2 k^1 l^2 m - 9 a^4 b^2 c^2 g^2 j^2 k^m + 45 a^3 b^3 c^2 d^2 k^2 l^m + 36 a^4 b^2 c^2 e^2 j^1 m^2 + 9 a^4 b^2 c^2 g^2 j^k l^2 m + 9 a^3 b^3 c^2 e^2 j^2 l^m + 9 a^4 b^2 c^2 g^2 h^k l^2 m - 9 a^4 b^2 c^2 f^2 h^1 l^2 m - 9 a^3 b^3 c^2 f^2 j^2 k^1 l - 45 a^3 b^3 c^2 d^2 j^k m^2 + 36 a^3 b^2 c^3 d^2 j^2 k^m + 18 a^4 b^2 c^2 f^2 h^k m^2 + 18 a^4 b^2 c^2 f^2 g^1 m^2 - 9 a^4 b^2 c^2 g^2 h^k k^1 l^2 - 9 a^4 b^2 c^2 f^2 h^2 k^2 m - 9 a^4 b^2 c^2 f^2 g^2 l^2 m - 9 a^4 b^2 c^2 e^2 j^2 k^2 l - 9 a^4 b^2 c^2 d^2 j^2 k^2 m - 9 a^3 b^3 c^2 e^2 j^k k^1 l^2 - 9 a^2 b^4 c^2 d^2 j^2 k^m - 36 a^3 b^2 c^3 d^2 j^k l^2 m - 27 a^3 b^2 c^3 e^2 h^2 k^m + 9 a^4 b^2 c^2 g^2 h^2 j^1 l^2 + 9 a^4 b^2 c^2 f^2 h^2 k^1 l^2 - 9 a^4 b^2 c^2 f^2 g^2 k^m l^2 - 9 a^4 b^2 c^2 e^2 g^2 l^m l^2 - 9 a^4 b^2 c^2 d^2 j^2 k^1 l^2 + 9 a^4 b^2 c^2 d^2 h^2 l^2 m - 9 a^3 b^3 c^2 e^2 g^1 l^2 m + 9 a^2 b^4 c^2 e^2 h^2 k^m + 9 a^2 b^4 c^2 d^2 j^k l^2 m - 45 a^3 b^3 c^2 e^2 h^2 j^m l^2 + 36 a^4 b^2 c^2 e^2 h^2 j^m l^2 + 36 a^3 b^2 c^3 e^2 h^2 j^2 m - 36 a^3 b^2 c^3 d^2 h^k l^2 m + 36 a^2 b^3 c^3 d^2 g^2 l^m - 9 a^4 b^2 c^2 f^2 h^2 j^2 l^2 - 9 a^4 b^2 c^2 d^2 h^2 k^m l^2 + 9 a^3 b^3 c^2 f^2 h^2 j^1 l^2 + 9 a^3 b^3 c^2 e^2 f^1 m l^2 + 9 a^3 b^3 c^2 e^2 h^2 j^2 m - 9 a^3 b^2 c^3 f^2 h^2 j^1 l - 9 a^2 b^4 c^2 e^2 h^2 j^2 m + 9 a^2 b^4 c^2 d^2 h^k l^2 m + 36 a^3 b^2 c^3 d^2 h^k k^1 l^2 - 27 a^4 b^2 c^2 e^2 g^2 j^2 m l^2 - 27 a^4 b^2 c^2 d^2 h^2 j^2 m l^2 - 9 a^4 b^2 c^2 d^2 h^k l^2 m l^2 - 9 a^3 b^3 c^2 e^2 f^2 k^m l^2 - 9 a^3 b^3 c^2 d^2 f^2 l^m l^2 + 9 a^3 b^2 c^3 f^2 h^2 j^2 k + 9 a^3 b^2 c^3 f^2 g^2 j^2 l - 9 a^3 b^2 c^3 e^2 g^2 k^2 l - 9 a^3 b^2 c^3 e^2 f^2 k^2 m - 9 a^3 b^2 c^3 d^2 f^2 l^2 m - 9 a^2 b^4 c^2 d^2 h^k k^1 l^2 + 9 a^2 b^3 c^3 d^2 h^2 k^1 l - 81 a^3 b^2 c^3 d^2 g^2 j^m l^2 + 54 a^2 b^4 c^2 d^2 g^2 j^m l^2 - 45 a^3 b^3 c^2 d^2 g^2 j^m l^2 - 45 a^2 b^3 c^3 d^2 g^2 j^2 m + 36 a^3 b^2 c^3 d^2 f^2 k^m l^2 + 36 a^3 b^2 c^3 d^2 g^2 j^2 m + 18 a^3 b^2 c^3 e^2 g^2 j^1 l^2 + 18 a^3 b^2 c^3 e^2 f^2 k^1 l^2 + 18 a^3 b^2 c^3 d^2 e^2 l^2 m - 9 a^4 b^2 c^2 d^2 f^2 k^2 m l^2 - 9 a^3 b^3 c^2 f^2 g^2 h^m l^2 - 9 a^3 b^3 c^2 d^2 h^2 j^1 l^2 - 9 a^3 b^2 c^3 f^2 g^2 j^k l^2 - 9 a^3 b^2 c^3 d^2 e^2 l^m l^2 - 9 a^3 b^2 c^3 f^2 g^2 h^2 m - 9 a^3 b^2 c^3 e^2 g^2 j^2 l - 9 a^3 b^2 c^3 e^2 f^2 k^2 l - 9 a^2 b^4 c^2 d^2 f^2 k^m l^2 - 9 a^2 b^4 c^2 d^2 g^2 j^2 m - 9 a^2 b^3 c^3 e^2 h^2 j^k - 9 a^2 b^2 c^4 d^2 f^2 k^m - 27 a^2 b^2 c^4 d^2 g^2 j^1 l - 9 a^3 b^2 c^3 e^2 f^2 j^1 l^2 - 9 a^3 b^2 c^3 d^2 h^2 j^2 k - 9 a^3 b^2 c^3 d^2 f^2 k^1 l^2 - 9 a^3 b^2 c^3 d^2 e^2 k^m l^2 - 9 a^2 b^3 c^3 e^2 g^2 h^2 m - 9 a^2 b^3 c^3 d^2 h^2 j^k l^2 - 9 a^2 b^3 c^3 d^2 f^2 k^2 l - 9 a^2 b^3 c^3 d^2 e^2 k^2 m + 36 a^3 b^3 c^2 d^2 e^2 j^2 m l^2 + 36 a^3 b^2 c^3 e^2 f^2 h^m l^2 - 27 a^2 b^2 c^4 d^2 g^2 h^m + 9 a^3 b^3 c^2 e^2 f^2 h^2 m l^2 + 9 a^3 b^2 c^3 f^2 g^2 h^k l^2 - 9 a^2 b^4 c^2 e^2 f^2 h^m l^2 + 9 a^2 b^3 c^3 d^2 e^2 k^1 l^2 - 9 a^2 b^2 c^4 e^2 f^2 h^m - 45 a^2 b^3 c^3 d^2 g^2 h^1 l^2 - 36 a^3 b^2 c^3 e^2 f^2 g^2 m l^2 + 36 a^3 b^2 c^3 d^2 g^2 h^1 l^2 - 36 a^3 b^2 c^3 d^2 f^2 h^m l^2 + 36 a^2 b^2 c^4 d^2 g^2 h^2 l - 9 a^3 b^2 c^3 e^2 g^2 h^2 k^2 + 9 a^2 b^4 c^2 e^2 f^2 g^2 m l^2 - 9 a^2 b^4 c^2 d^2 g^2 h^1 l^2 + 9 a^2 b^4 c^2 d^2 f^2 h^m l^2 + 9 a^2 b^3 c^3 e^2 g^2 h^k l^2 + 9 a^2 b^3 c^3 d^2 g^2 h^2 l - 9 a^2 b^3 c^3 d^2 e^2 j^1 l^2 - 9 a^2 b^2 c^4 e^2 g^2 h^k - 9 a^2 b^2 c^4 e^2 f^2 g^2 m - 9 a^2 b^2 c^4 d^2 f^2 j^2 k - 9 a^2 b^2 c^4 d^2 f^2 h^2 m - 9 a^2 b^2 c^4 d^2 e^2 j^2 l - 45 a^2 b^3 c^3 d^2 f^2 g^2 m l^2 + 36 a^3 b^2 c^3 d^2 f^2 g^2 m l^2 - 27 a^3 b^2 c^3 d^2 f^2 h^2 l^2 + 18 a^2 b^2 c^4 d^2 e^2 j^k l^2 + 9 a^2 b^4 c^2 d^2 f^2 h^2 l^2 - 9 a^2 b^4 c^2 d^2 f^2 g^2 m l^2 - 9 a^2 b^3 c^3 e^2 f^2 g^2 l^2 + 9 a^2 b^2 c^4 e^2 g^2 h^2 j + 9 a^2 b^2 c^4 e^2 f^2 h^2 k - 9 a^2 b^2 c^4 e^2 f^2 g^2 l - 9 a^2 b^2 c^4 d^2 f^2 g^2 m - 9 a^2 b^2 c^4 d^2 e^2 j^2 k + 9 a^2 b^2 c^4 d^2 e^2 h^2 m + 18 a^4 b^2 c^2 f^2 j^2 m l^2 + 18 a^3 b^2 c^3 e^2 h^2 l^2 - 9 a^2 b^4 c^2 e^2 h^2 l^2 + 18 a^2 b^2 c^4 d^2 g^2 k^2 + 12 a^6 c^2 j^3 k^1 m + 3 a^6 b^2 j^k k^1 m^3 - 12 a^6 c^2 g^k k^3 l^m - 12 a^5 c^3 g^3 k^1 m - 24 a^6 c^2 e^k k^1^3 m - 24 a^4 c^4 e^3 k^1 m + 12 a^6 c^2 h^2 j^k k^1^3 + 12 a^6 c^2 f^2 j^1^3 m + 12 a^5 c^3 h^3 j^k k^1 - 3 a^5 b^3 h^2 j^k k^1 m^3 - 3 a^5 b^3 g^2 j^1 m^3 - 3 a^5 b^3 f^2 k^1 m^3 + 12 a^6 c^2 g^2 h^1^3 m + 12 a^5 c^3 g^2 h^3 l^1 m - 12 a^6 c^2 e^2 j^k k^1 m^3 - 12 a^6 c^2 d^2 j^1 m^3 - 12 a^5 c^3 f^2 j^3 k^1 - 12 a^5 c^3 e^2 j^3 k^m - 12 a^5 c^3 d^2 j^3 l^m - 12 a^4 c^4 f^3 j^k k^1 + 24 a^6 c^2 f^2 h^k k^1 m^3 + 24 a^6 c^2 f^2 g^1 m^3 + 24 a^4 c^4 f^3 h^k k^m + 24 a^4 c^4
\end{aligned}$$

$$\begin{aligned}
& f^3 g^1 m - 12 a^6 c^2 g^h j^m^3 - 12 a^6 c^2 e^h l^m^3 - 12 a^5 c^3 g^h j^3 m + 3 b^6 c^2 d^3 j^k l + 3 a^4 b^4 e^j k^m^3 + 3 a^4 b^4 d^j l^m^3 - 24 a^5 c^3 d^j k^3 l - 24 a^3 c^5 d^3 j^k l - 6 a^4 b^4 e^h l^m^3 + 3 b^6 c^2 d^3 h^k m + 3 b^6 c^2 d^3 g^1 m + 3 a^6 b^c j^2 l^3 m + 3 a^4 b^4 g^h j^m^3 + 3 a^4 b^4 f^h k^m^3 + 3 a^4 b^4 f^g l^m^3 - 24 a^5 c^3 d^h k^3 m - 24 a^3 c^5 d^3 h^k m + 12 a^5 c^3 g^h j^k^3 + 12 a^5 c^3 f^g k^3 l + 12 a^5 c^3 e^h k^3 l + 12 a^5 c^3 e^g k^3 m + 12 a^4 c^4 g^3 h^j k + 12 a^4 c^4 f^g^3 k l + 12 a^4 c^4 f^g^3 j m + 12 a^4 c^4 e^g^3 k m + 12 a^4 c^4 d^g^3 l m + 12 a^3 c^5 d^3 g^1 m + 3 a^6 b^c j^k^3 m^2 - 9 a^6 b^c h^2 l^m^3 - 3 a^5 b^c c^2 j^4 k l + 24 a^5 c^3 e^g j^1 l^3 + 24 a^5 c^3 e^f k^1 l^3 + 24 a^5 c^3 d^e l^3 m + 24 a^3 c^5 e^3 g^j l + 24 a^3 c^5 e^3 f^k l + 24 a^3 c^5 d^e^3 l m - 12 a^5 c^3 d^h j^1 l^3 - 12 a^5 c^3 d^g k^1 l^3 - 12 a^4 c^4 e^h^3 j^k - 12 a^4 c^4 d^h^3 j^1 - 12 a^3 c^5 e^3 h^j k - 12 a^3 c^5 e^3 f^j m + 9 a^4 b^c^3 g^4 l^m + 6 b^5 c^3 d^3 f^j m + 6 a^3 b^5 d^g k^m^3 - 3 b^5 c^3 d^3 h^j k - 3 b^5 c^3 d^3 g^j l - 3 b^5 c^3 d^3 f^k l - 3 b^5 c^3 d^3 e^k m - 3 a^3 b^5 e^g j^m^3 - 3 a^3 b^5 e^f k^m^3 - 3 a^3 b^5 d^h j^m^3 - 3 a^3 b^5 d^f l^m^3 - 12 a^5 c^3 f^g h^1 l^3 - 12 a^4 c^4 f^g h^3 l - 12 a^4 c^4 e^g h^3 m - 12 a^3 c^5 e^3 g^h m - 9 a^6 b^c g^k^2 m^3 - 3 b^5 c^3 d^3 g^h m + 3 a^6 b^c c^2 f^1 l^3 m^2 - 3 a^3 b^5 f^g h^m^3 + 12 a^5 c^3 d^e j^m^3 + 12 a^4 c^4 e^f j^3 k + 12 a^4 c^4 d^g j^3 k + 12 a^4 c^4 d^f j^3 l + 12 a^4 c^4 d^e j^3 m + 12 a^3 c^5 e^f^3 j^k + 12 a^3 c^5 d^f^3 j^1 - 9 a^6 b^c e^1 l^2 m^3 - 24 a^5 c^3 e^f g^m^3 - 24 a^5 c^3 d^f h^m^3 - 24 a^3 c^5 e^f^3 g^m - 24 a^3 c^5 d^f^3 h^m - 15 a^2 b^c^5 d^4 l^m + 15 a^2 b^3 c^4 d^4 l^m + 12 a^4 c^4 f^g h^j^3 + 12 a^3 c^5 f^3 g^h j + 12 a^3 c^5 e^f^3 h^1 + 9 a^3 b^c^4 f^4 k^1 - 9 a^3 b^c^4 f^4 j^m + 3 b^4 c^4 d^3 e^j k + 3 a^5 b^2 c^g j^1 l^4 + 3 a^5 b^2 c^f k^1 l^4 + 3 a^5 b^2 c^d l^4 m - 3 a^5 b^c^2 h^j k^4 - 3 a^5 b^c^2 f^k^4 l - 3 a^5 b^c^2 e^k^4 m - 3 a^4 b^c^3 h^4 j^k + 3 a^2 b^6 d^e j^m^3 + 3 a^b^4 c^3 e^4 k^m + 24 a^4 c^4 d^e j^k^3 + 24 a^2 c^6 d^3 e^j k - 6 b^4 c^4 d^3 e^h l + 3 b^4 c^4 d^3 g^h j + 3 b^4 c^4 d^3 f^h k + 3 b^4 c^4 d^3 f^g l + 3 b^4 c^4 d^3 e^g m - 3 a^4 b^c^3 g^h^4 m + 3 a^2 b^6 e^f g^m^3 + 3 a^2 b^6 d^f h^m^3 - 3 a^b^6 c^e^3 j^m^2 + 24 a^4 c^4 d^f h^k^3 + 24 a^2 c^6 d^3 f^h k - 12 a^4 c^4 e^f g^k^3 - 12 a^3 c^5 e^f g^3 k - 12 a^3 c^5 d^g^3 h^j - 12 a^3 c^5 d^f g^3 l - 12 a^3 c^5 d^e g^3 m - 12 a^2 c^6 d^3 g^h j - 12 a^2 c^6 d^3 f^g l - 12 a^2 c^6 d^3 e^h l - 12 a^2 c^6 d^3 e^g m - 12 a^b^2 c^5 d^4 j^1 + 9 a^5 b^c^2 d^j l^4 + 9 a^2 b^c^5 e^4 j^k - 3 a^4 b^3 c^d j^1 l^4 - 3 a^4 b^c^3 e^j^4 k - 3 a^4 b^c^3 d^j^4 l - 3 a^b^3 c^4 e^4 j^k - 24 a^4 c^4 d^e f^1 l^3 - 24 a^2 c^6 d^e^3 f^1 - 12 a^5 b^2 c^e g^m^4 - 12 a^5 b^2 c^d h^m^4 + 12 a^3 c^5 d^e h^3 j + 12 a^2 c^6 d^e^3 h^j + 12 a^2 c^6 d^e^3 g^k - 12 a^b^2 c^5 d^4 h^m + 9 a^5 b^c^2 f^g l^4 - 9 a^5 b^c^2 e^h l^4 - 9 a^2 b^c^5 e^4 h^1 + 9 a^2 b^c^5 e^4 g^m + 6 a^4 b^3 c^e h^1 l^4 + 6 a^b^3 c^4 e^4 h^1 - 3 b^3 c^5 d^3 e^g j - 3 b^3 c^5 d^3 e^f k - 3 a^4 b^3 c^f g^1 l^4 - 3 a^4 b^c^3 g^h j^4 - 3 a^3 b^c^4 g^4 h^j - 3 a^3 b^c^4 f^g^4 l - 3 a^3 b^c^4 e^g^4 m - 3 a^b^3 c^4 e^4 g^m + 12 a^3 c^5 e^f g^h^3 + 12 a^2 c^6 e^3 f^g h - 3 b^3 c^5 d^3 f^g h - 12 a^3 c^5 d^e f^j^3 - 12 a^2 c^6 d^e f^3 j - 3 a^b^6 c^d^2 g^1 l^3 - 15 a^5 b^c^2 d^e m^4 + 15 a^4 b^3 c^d e m^4 + 9 a^4 b^c^3 e^f k^4 - 9 a^4 b^c^3 d^g k^4 + 3 a^3 b^4 c^d f^1 l^4 - 3 a^3 b^c^4 d^h^4 j - 3 a^2 b^c^5 e^f^4 k - 3 a^2 b^c^5 d^f^4 l + 3 a^b^2 c^5 e^4 g^j + 3 a^b^2 c^5 e^4 f^k + 3 a^b^2 c^5 d^e^4 m - 9 a^b^c^6 d^3 e^2 l + 3 b^2 c^6 d^3 e^f g - 3 a^3 b^c^4 f^g h^4 - 3 a^2 b^c^5 f^4 g^h + 12 a^2 c^6 d^e f^g^3 - 9 a^b^c^6 d^3 f^2 j + 3 a^b^c^6 d^2 e^3 k + 9 a^3 b^c^4 d^e j^4 - 3 a^2 b^c^5 e^f g^4 - 9 a^b^c^6 d^3 e^h^2 + 3 a^b^c^6 d^2 f^3 g + 3 a^b^c^6 d^e^3 g^2 - 3 a^4 b^2 c^2 h^3 j^2 m + 12 a^4 b^2 c^2 g^3 j^m^2 - 3 a^4 b^2 c^2 f^2 k^3 m + 3 a^3 b^3 c^2 g^3 j^2 m - 9 a^3 b^4 c^f^2 j^2 m^2 + 9 a^3 b^3 c^2 f^2 j^3 m - 6 a^3 b^3 c^2 f^3 j^m^2 - 6 a^3 b^2 c^3 f^3 j^2 m - 3 a^2 b^4 c^2 f^3 j^2 m - 27 a^4 b^2 c^2 d^2 k^m^3 - 27 a^3 b^2 c^3 e^3 j^m^2 + 18 a^2 b^4 c^2 e^3 j^m^2 - 15 a^2 b^3 c^3 e^3 j^2 m + 12 a^4 b^2 c^2 f^2 j^1 l^3 + 3 a^3 b^3 c^2 e^2 k^3 l + 42 a^2 b^3 c^3 d^3 j^m^2 - 27 a^2 b^2 c^4 d^3 j^2 m - 15 a^3 b^3 c^2 d^2 k^1 l^3 - 3 a^4 b^2 c^2 f^j^2 k^3 - 3 a^4 b^2 c^2 f^h^3 m^2 + 3 a^3 b^3 c^2 g^3 h^1 l^2 + 3 a^3 b^3 c^2 f^2 j^k^3 - 3 a^3 b^2 c^3
\end{aligned}$$

$$\begin{aligned}
&g^3h^2l - 3a^3b^2c^3e^2j^3l - 27a^4b^2c^2e^2h^3m^3 + 12a^3b^2 \\
&*c^3f^3h^1l^2 + 3a^3b^3c^2f^3g^3m^2 - 3a^2b^4c^2f^3h^1l^2 + 3a^2* \\
&b^3c^3f^3h^2l + 9a^3b^3c^2e^2h^3l^2 + 9a^2b^3c^3e^2h^3l - 6a \\
&^4b^2c^2e^2h^2l^3 - 6a^3b^3c^2e^2h^1l^3 - 6a^2b^3c^3e^3h^1l^2 - \\
&6a^2b^2c^4e^3h^2l + 3a^2b^3c^3d^2j^3k + 42a^3b^3c^2d^2g^3m^3 \\
&- 27a^4b^2c^2d^2g^2m^3 - 27a^2b^2c^4d^3h^1l^2 - 15a^2b^3c^3e^ \\
&3f^3m^2 + 12a^3b^2c^3e^2h^3k^3 + 3a^3b^3c^2e^2h^2k^3 - 3a^3b^2c^ \\
&3e^2g^3l^2 - 3a^2b^4c^2e^2h^3k^3 + 3a^2b^3c^3f^3g^3k^2 - 3a^2b^2 \\
&*c^4f^3g^2k - 27a^3b^2c^3d^2g^3l^3 - 27a^2b^2c^4d^3f^3m^2 + 18a \\
&^2b^4c^2d^2g^3l^3 - 15a^3b^3c^2d^2g^2l^3 + 12a^2b^2c^4e^3g^3k^2 \\
&- 3a^3b^2c^3e^2h^2j^3 + 3a^2b^3c^3e^2h^3j^3 + 3a^2b^3c^3e^2f^3l \\
&^2 - 3a^2b^2c^4d^2h^3k + 9a^2b^3c^3d^2g^3k^2 - 9a^2b^4c^3d^2g^ \\
&2k^2 - 6a^3b^2c^3d^2g^2k^3 - 6a^2b^3c^3d^2g^3k^3 - 3a^2b^4c^2d \\
&*g^2k^3 + 12a^2b^2c^4d^2g^2j^3 + 3a^2b^3c^3d^2g^2j^3 - 3a^2b^2c \\
&^4d^2f^3k^2 - 3a^2b^2c^4d^2g^2h^3 + 12a^7c^3j^3k^1m^3 - 3b^7c^3d^3k \\
&*1m - 3a^6b^3c^3k^4l^3m - 3a^6b^3c^3j^3k^1l^4 - 3a^6b^3c^3g^3l^4m - 9a^6b^3 \\
&c^3f^3j^3m^4 + 9a^6b^3c^3e^3k^3m^4 + 9a^6b^3c^3d^3l^3m^4 + 9a^6b^3c^3g^3h^3m^4 - 3a \\
&*b^7d^3e^3f^3m^3 + 9a^6b^3c^3d^4h^3j - 9a^6b^3c^3d^4g^3k + 9a^6b^3c^3d^4f^3l \\
&+ 9a^6b^3c^3d^4e^3m + 12a^6c^7d^3e^3f^3g - 3a^6b^3c^3d^4e^4j - 3a^6b^3c^3e^ \\
&4f^3g - 3a^6b^3c^3d^4e^3f^4 + 18a^6c^2h^2j^3l^3m^2 - 18a^6c^2h^2j^2l^2m \\
&+ 18a^6c^2f^3k^2l^2m + 36a^5c^3e^2k^3l^2m + 18a^6c^2g^3j^3k^2m^2 \\
&+ 18a^6c^2e^3k^2l^3m^2 + 18a^5c^3g^2j^2k^3m + 18a^6c^2e^3j^3l^2m^2 \\
&+ 18a^6c^2d^3k^3l^2m^2 - 18a^5c^3e^2j^3l^3m^2 - 18a^6c^2f^3h^1l^2m^2 \\
&+ 18a^5c^3f^2h^1l^2m - 36a^5c^3f^2h^3k^3m^2 - 36a^5c^3f^2g^3l^3m^2 \\
&+ 18a^5c^3g^2h^3k^3l^2 - 18a^5c^3g^2h^2k^2l + 18a^5c^3f^3h^2k^2m \\
&+ 18a^5c^3f^3g^2l^2m + 18a^5c^3e^3j^2k^2l + 18a^5c^3d^3j^2k^2m \\
&- 18a^4c^4d^2j^2k^3m + 36a^4c^4d^2j^3k^2l + 18a^5c^3f^3g^2k^3m^2 \\
&+ 18a^5c^3e^3g^2l^3m^2 + 18a^5c^3d^3j^2k^3l^2 - 18a^4c^4f^2g^2k^3m \\
&+ 36a^4c^4d^2h^3k^2m + 18a^5c^3f^3h^3j^2l^2 - 18a^5c^3e^3h^2j^3m^2 \\
&+ 18a^5c^3d^3h^2k^3m^2 + 18a^4c^4f^2h^2j^3l - 18a^4c^4e^2h^3j^2m \\
&- 18a^5c^3e^3g^3k^2l^2 + 18a^5c^3d^3h^3k^2l^2 + 18a^4c^4e^2g^3k^2l \\
&+ 18a^4c^4e^2f^3k^2m - 18a^4c^4d^2h^3k^3l^2 + 18a^4c^4d^2f^3l^2m \\
&- 36a^4c^4e^2g^3j^3l^2 - 36a^4c^4e^2f^3k^3l^2 - 36a^4c^4d^2e^2l^2m \\
&+ 18a^5c^3d^3f^3k^2m^2 + 18a^4c^4f^2g^3j^3k^2 + 18a^4c^4d^2g^3j^3m^2 \\
&- 18a^4c^4d^2f^3k^3m^2 + 18a^4c^4d^2e^3l^3m^2 - 18a^4c^4f^3g^2j^2k \\
&+ 18a^4c^4f^3g^2h^2m + 18a^4c^4e^3g^2j^2l + 18a^4c^4e^3f^2k^2l \\
&- 18a^4c^4d^3g^2j^2m - 18a^4c^4d^3f^2k^2m + 18a^3c^5d^2f^2k^3m \\
&+ 3a^4b^2c^2h^4k^3m - 3a^3b^3c^2g^4l^3m + 18a^4c^4e^3f^2j^3l^2 + \\
&18a^4c^4d^3h^2j^2k + 18a^4c^4d^3f^2k^3l^2 + 18a^4c^4d^3e^2k^3m^2 - \\
&18a^3c^5e^2f^2j^3l + 12a^5b^2c^3g^2k^3m^3 - 9a^5b^2c^2h^3j^3m^2 - \\
&9a^5b^2c^2f^2l^3m + 3a^5b^2c^2h^2k^3l + 3a^4b^3c^3h^3j^3m^2 + 3a \\
&^4b^3c^3f^2l^3m - 18a^4c^4e^2f^3h^3m^2 + 18a^3c^5e^2f^2h^3m + 15a \\
&^5b^2c^2e^2l^3m^3 - 15a^4b^3c^3e^2l^3m^3 - 9a^5b^2c^2g^2k^3l^3 - 9a^4 \\
&b^3c^3g^3j^2m - 3a^5b^2c^3g^3k^2l^3 + 3a^5b^2c^2h^3j^3l^2 + 3a^4b^ \\
&3c^3g^2k^3l^3 - 3a^3b^4c^3g^3j^3m^2 + 36a^4c^4e^3f^2g^3m^2 + 36a^4c^4 \\
&*d^3f^2h^3m^2 + 18a^4c^4e^3g^3h^2k^2 - 18a^4c^4d^3g^2h^1l^2 - 18a^4c^4 \\
&*d^3f^2j^2k^2 + 18a^3c^5e^2g^2h^3k + 18a^3c^5e^2f^3g^2m - 18a^3c^5 \\
&*d^2g^3h^2l + 18a^3c^5d^2f^3j^2k + 18a^3c^5d^2f^3h^2m + 18a^3c^5 \\
&*d^2e^3j^2l - 12a^2b^2c^4e^4k^3m + 9a^4b^3c^3f^3j^3m^2 - 9a^4b^2c \\
&^2f^3j^4m - 6a^5b^2c^3f^3j^2m^3 + 6a^5b^2c^2f^2j^3m^3 - 6a^5b^2c^2f^3 \\
&j^3m^2 - 6a^4b^3c^3f^2j^3m^3 + 6a^4b^3c^3f^3j^3m^2 - 6a^4b^3c^3f^2j^ \\
&^3m + 6a^2b^3c^3f^4j^3m + 3a^3b^2c^3g^4j^3l + 3a^2b^5c^3f^3j^3m^2 \\
&- 3a^2b^3c^3f^4k^3l - 36a^3c^5d^2e^3j^3k^2 - 18a^4c^4d^3f^3g^2m^2 \\
&+ 18a^3c^5e^3f^2g^2l + 18a^3c^5d^3f^2g^2m + 18a^3c^5d^3e^2j^2k \\
&+ 18a^3b^4c^3d^2k^3m^3 + 15a^3b^3c^4e^3j^2m + 12a^5b^2c^3d^3k^2m^3 \\
&- 9a^5b^2c^2f^3j^2l^3 - 9a^4b^3c^3e^2k^3l + 3a^5b^2c^2e^3k^3l^2 + \\
&3a^4b^3c^3f^3j^2l^3 + 3a^4b^3c^3g^2j^3k - 3a^3b^4c^3f^2j^3l^3 + 3a \\
&^3b^2c^3g^4h^3m + 3a^3b^5c^2e^3j^2m - 36a^3c^5d^2f^3h^3k^2 - 21a^ \\
&3b^3c^4d^3j^3m^2 - 21a^3b^5c^2d^3j^3m^2 + 18a^3c^5e^2f^3h^3j^2 - 18a^
\end{aligned}$$

$$\begin{aligned}
& 3c^5ef^2h^2j + 18a^3c^5df^2h^2k + 18ab^4c^3d^3j^2m + 15a^4 \\
& 4b^3c^3d^2k^1l^3 - 9a^5b^3c^2dk^2l^3 - 9a^4b^3c^3g^3h^1l^2 - 9a^4b \\
& c^3f^2jk^3 + 3a^4b^3c^2dk^2l^3 + 3a^2b^5c^3d^2k^1l^3 - 18a^3c^5 \\
& d^2e^2g^1l^2 + 18a^3c^5d^2e^2hk^2 + 18a^3b^4c^2e^2hm^3 - 18a^2c^6 \\
& d^2e^2hk + 18a^2c^6d^2e^2g^1l + 18a^2c^6d^2e^2fm + 15a^5b^3c \\
& ^2e^2h^2m^3 - 15a^4b^3c^2e^2hm^3 - 9a^4b^3c^3fg^3m^2 - 9a^3b^3c^4 \\
& f^3h^2l + 3a^4b^2c^2e^2jk^4 + 3a^4b^3c^3gh^3k^2 + 3a^3b^3c^4f^2 \\
& g^3m + 36a^3c^5d^2e^2f^1l^2 + 18a^3c^5d^2fg^2j^2 + 18a^2c^6d^2 \\
& f^2g^2j + 18a^2c^6d^2e^2f^2l - 9a^3b^2c^3e^2h^4l - 9a^3b^3c^4d^2 \\
& j^3k + 6a^4b^3c^3e^2h^1l^3 - 6a^4b^3c^3e^2h^3l^2 + 6a^3b^3c^4e^3h^1 \\
& ^2l - 6a^3b^3c^4e^2h^3l + 3a^4b^2c^2f^2hk^4 + 3a^4b^3c^3d^2j^3k^2 \\
& - 3a^3b^4c^2e^2h^1l^3 + 3a^2b^5c^2e^2h^1l^3 + 3a^2b^2c^4f^4hk + 3 \\
& a^2b^2c^4f^4g^1 + 3ab^5c^2e^3h^1l^2 - 3ab^4c^3e^3h^2l - 21a \\
& ^4b^3c^3d^2g^2m^3 - 21a^2b^5c^2d^2g^2m^3 + 18a^3b^4c^2d^2g^2m^3 + 18a \\
& ^2c^6d^2e^2f^2k + 18ab^4c^3d^3h^1l^2 + 15a^3b^3c^4e^3f^2m^2 + 15a \\
& ^2b^3c^5d^3h^2l - 15ab^3c^4d^3h^2l - 9a^4b^3c^3e^2h^2k^3 - 9a^3 \\
& b^3c^4f^3g^2k^2 - 9a^2b^3c^5e^3f^2m + 3a^3b^3c^4f^2h^3j + 3ab^5c \\
& ^2e^3f^2m^2 + 3ab^3c^4e^3f^2m + 18ab^4c^3d^3f^2m^2 + 15a^4b^3c \\
& ^3d^2g^2l^3 + 12ab^2c^5d^3f^2m - 9a^3b^3c^4e^2h^2j^3 - 9a^3b^3c^4 \\
& e^2f^3l^2 - 9a^2b^3c^5e^3g^2k + 3a^3b^3c^4fg^3j^2 + 3a^2b^5c^2d \\
& g^2l^3 + 3a^2b^3c^5e^2f^3l - 3ab^4c^3e^3g^2k^2 + 3ab^3c^4e^3g \\
& ^2k + 18a^2c^6d^2e^2gh^2 - 18a^2c^6d^2e^2g^2h - 12a^4b^2c^2d^2f \\
& ^1l^4 - 9a^2b^2c^4d^2g^4k + 9ab^3c^4d^2g^3k + 6a^3b^3c^2d^2g^2k^4 \\
& + 6a^3b^3c^4d^2g^2k^3 - 6a^3b^3c^4d^2g^3k^2 + 6a^2b^3c^5d^3g^2k^2 - \\
& 6a^2b^3c^5d^2g^3k - 6ab^3c^4d^3g^2k^2 - 6ab^2c^5d^3g^2k - 3a \\
& ^3b^3c^2e^2f^2k^4 + 3a^3b^2c^3e^2g^2j^4 + 3a^3b^2c^3d^2h^2j^4 + 3ab \\
& ^5c^2d^2g^2k^3 + 15a^2b^3c^5d^3e^1l^2 - 15ab^3c^4d^3e^1l^2 - 9a^3b \\
& ^3c^4d^2g^2j^3 - 9a^2b^3c^5e^3f^2j^2 - 3ab^4c^3d^2g^2j^3 + 3ab^3c \\
& ^4e^3f^2j^2 - 3ab^2c^5e^3f^2j + 12ab^2c^5d^3f^2j^2 - 9a^2b^3c^5 \\
& d^2e^3k^2 + 3a^2b^3c^5e^2g^3h + 3ab^3c^4d^2e^3k^2 - 9a^2b^3c^5d^2 \\
& g^2h^3 - 3a^2b^3c^3d^2e^2j^4 + 3a^2b^3c^5e^2f^3h^2 + 3ab^3c^4d^2g \\
& ^2h^3 + 3a^2b^2c^4d^2f^2h^4 - 9a^7c^2k^2l^2m^2 - 6a^6c^2j^2k^3m - \\
& 3a^6b^2h^1l^2m^3 + 3a^5b^3h^2l^1m^3 - 6a^6c^2g^2k^2m^3 - 6a^6c^2 \\
& h^2k^3l^2 + 6a^5c^3h^3j^2m + 6a^6c^2g^2k^2l^3 - 6a^6c^2f^2k^3m^2 \\
& - 6a^5c^3h^2j^3l - 6a^5c^3g^3j^2m^2 + 6a^5c^3f^2k^3m + 3a^5 \\
& b^3g^2k^2m^3 - 3a^4b^4g^2k^2m^3 + 12a^6c^2f^2j^2m^3 + 12a^4c^4f^2 \\
& 3j^2m + 3a^5b^3e^1l^2m^3 + 3a^3b^5e^2l^1m^3 - 6a^6c^2d^2k^2m^3 - \\
& 6a^5c^3f^2j^1l^3 + 6a^5c^3d^2k^2m^3 - 6a^5c^3g^2j^3k^2 + 6a^4c^4 \\
& e^3j^2m^2 - 3b^6c^2d^3j^2m - 3a^4b^4f^2j^2m^3 + 3a^3b^5f^2j^2m \\
& ^3 + 6a^5c^3f^2j^2k^3 + 6a^5c^3f^2h^3m^2 - 6a^5c^3e^2j^3l^2 + 6a^4 \\
& c^4g^3h^2l - 6a^4c^4f^2h^3m + 6a^4c^4e^2j^3l + 6a^3c^5d^3 \\
& j^2m - 3a^4b^4d^2k^2m^3 - 3a^2b^6d^2k^2m^3 + 6a^5c^3e^2hm^3 - \\
& 6a^4c^4g^2h^3k - 6a^4c^4f^3h^1l^2 + 12a^5c^3e^2h^2l^3 + 12a^3c^5 \\
& e^3h^2l - 3b^6c^2d^3h^1l^2 + 3b^5c^3d^3h^2l - 3a^5b^2c^2j^4m \\
& ^2 + 3a^3b^5e^2hm^3 - 3a^2b^6e^2hm^3 + 6a^5c^3d^2g^2m^3 - 6a^4 \\
& c^4e^2hk^3 - 6a^4c^4f^2h^3j^2 + 6a^4c^4e^2g^3l^2 + 6a^3c^5f^2 \\
& 3g^2k - 6a^3c^5e^2g^3l + 6a^3c^5d^3h^1l^2 - 3b^6c^2d^3f^2m^2 - \\
& 3b^4c^4d^3f^2m + 6a^4c^4d^2g^1l^3 + 6a^4c^4e^2h^2j^3 - 6a^4c^4 \\
& d^2h^3k^2 - 6a^3c^5f^2g^3j - 6a^3c^5e^3g^2k^2 + 6a^3c^5d^3f^2m \\
& ^2 + 6a^3c^5d^2h^3k - 6a^2c^6d^3f^2m + 4a^5b^2c^4h^3m^3 + 3b^5 \\
& c^3d^3g^2k^2 - 3b^4c^4d^3g^2k - 3a^2b^6d^2g^2m^3 + a^5b^3c^2j^3 \\
& k^3 + 12a^4c^4d^2g^2k^3 + 12a^2c^6d^3g^2k + 6a^5b^3c^2h^3l^3 + \\
& 5a^5b^3c^2g^3m^3 - 5a^4b^3c^2g^3m^3 + 3b^5c^3d^3e^1l^2 + 3b^3c^5 \\
& d^3e^2l - 3a^5b^2c^2h^2l^4 + a^4b^3c^4h^3l^3 + 12a^5b^2c^2f^2m^4 \\
& - 6a^3c^5d^2g^2j^3 + 6a^3c^5d^2f^3k^2 + 6a^3b^4c^2f^3m^3 + 6a^2c \\
& ^6e^3f^2j - 6a^2c^6d^2f^3k - 3b^4c^4d^3f^2j^2 + 3b^3c^5d^3f^2 \\
& ^2j - 3a^2b^2c^4f^5m - 7a^4b^3c^3e^3m^3 - 7a^2b^5c^2e^3m^3 + 6a \\
& ^4b^3c^3g^3k^3 - 6a^3c^5e^2g^3h^2 - 6a^2c^6d^3f^2j^2 + 5a^4b^3c^3 \\
& f^3l^3 + a^4b^3c^3h^3j^3 + a^2b^5c^2f^3l^3 + 6a^3c^5d^2g^2h^3 - 6
\end{aligned}$$

$$\begin{aligned}
& a^2c^6e^2f^3h - 3a^3b^4c^2e^2l^4 - 3a^3b^4c^3e^4l^2 - 7a^3b^3c^4d^3l^3 - 7a^3b^5c^2d^3l^3 + 6a^3b^3c^4f^3j^3 + 5a^3b^3c^4e^3k^3 \\
& + 3b^3c^5d^3e^2h^2 - 3b^2c^6d^3e^2h + ab^5c^2e^3k^3 + 12a^2b^2c^5d^4k^2 - 6a^2c^6d^3f^3g^2 + 6a^2b^4c^3d^3k^3 - 3a^4b^2c^2d^2k^5 \\
& + a^3b^3c^4g^3h^3 + 5a^2b^3c^5d^3j^3 - 5a^2b^3c^4d^3j^3 - 9a^2c^7d^2e^2f^2 + 6a^2b^3c^5e^3h^3 - 3a^2b^2c^5e^4h^2 + a^2b^3c^5f^3g^3 \\
& + ab^3c^4e^3h^3 + 4a^2b^2c^5d^3h^3 - 3a^2b^2c^5d^2g^4 - 6a^7c^2j^3m^2 + 6a^7c^2h^3l^2m^3 + 6a^6c^2j^3k^4l + 6a^6c^2h^3k^4m - 6 \\
& a^5c^3h^4k^2m + 3a^6b^2h^3k^2m^4 + 3a^6b^2g^3l^2m^4 - 3b^5c^3d^4l^2m - 6a^6c^2g^3j^4l - 6a^6c^2f^3k^4l - 6a^6c^2d^4l^2m + 6a^5c^3h^3j^4k \\
& + 6a^5c^3g^3j^4l + 6a^5c^3f^3j^4m - 6a^4c^4g^4j^4l + 6a^4c^4g^4j^4l + 6a^3c^5e^4k^2m + 6a^5b^3f^3j^4m - 6a^4c^4g^4h^2m + 3b^7c^3d^3j^2m^2 - 3 \\
& a^5b^3e^2k^2m^4 - 3a^5b^3d^4l^2m^4 + 3b^4c^4d^4j^4l - 3a^5b^3g^3h^2m^4 - 6a^5c^3e^2j^4k^4 + 6a^2c^6d^4j^4l + 3b^4c^4d^4h^2m + 6a^6c^2e^2g^3m^4 \\
& + 6a^6c^2d^4h^2m^4 + 6a^6b^3c^3j^3m^3 - 6a^5c^3f^3h^2k^4 + 6a^4c^4g^3h^4j + 6a^4c^4f^3h^4k + 6a^4c^4e^3h^4l + 6a^4c^4d^4h^4m - 6 \\
& a^3c^5f^4h^2k - 6a^3c^5f^4g^3l + 6a^2c^6d^4h^2m + 3a^5b^3c^2j^5m + a^6b^3c^3l^3 + 3a^4b^4e^2g^3m^4 + 3a^4b^4d^4h^2m^4 + 6b^3c^5d^4g^3k \\
& - 3b^3c^5d^4h^2j - 3b^3c^5d^4f^2l - 3b^3c^5d^4e^2m + 3a^2b^7d^2g^3m^3 + 6a^5c^3d^3f^2l^4 - 6a^4c^4e^2g^3j^4 - 6a^4c^4d^4h^2j^4 + 6a^3c^5e^2g^4j \\
& + 6a^3c^5d^4g^4k - 6a^2c^6e^4g^3j - 6a^2c^6e^4f^2k - 6a^2c^6d^4e^4m + 3a^4b^3c^3h^5l + 6a^3c^5f^3g^4h - 3a^3b^5d^2e^2m^4 + 3b^2c^6d^4e^2j \\
& + 3a^5b^3c^2g^3k^5 + 3a^3b^3c^4g^5k + 8a^2b^6c^3d^3m^3 + 3b^2c^6d^4f^2h - 3a^5b^2c^2e^2l^5 - 3a^2b^2c^5e^5l - 6a^3c^5d^2f^2h^4 + 6a^2c^6e^2f^4g \\
& + 6a^2c^6d^2f^4h + 3a^4b^3c^3f^3j^5 + 3a^2b^3c^5f^5j + 6a^2c^7d^3e^2h - 6a^2c^7d^2e^3g + 3a^3b^3c^4e^2h^5 + 6a^2b^3c^6d^3g^3 + 3a^2b^3c^5d^3g^5 \\
& + ab^3c^6e^3f^3 - 9a^6c^2j^2k^2l^2 - 9a^6c^2h^2k^2m^2 - 9a^6c^2g^2l^2m^2 - 18a^5c^3f^2j^2m^2 - 9a^5c^3h^2j^2k^2 - 9a^5c^3g^2j^2l^2 - 9a^5c^3f^2k^2l^2 \\
& - 9a^5c^3e^2k^2m^2 - 9a^5c^3d^2l^2m^2 - 9a^5c^3g^2h^2m^2 - 9a^4c^4e^2j^2k^2 - 9a^4c^4d^2j^2l^2 - 18a^4c^4e^2h^2l^2 - 9a^4c^4g^2h^2j^2 - 9a^4c^4f^2h^2k^2 \\
& - 9a^4c^4f^2g^2l^2 - 9a^4c^4e^2g^2m^2 - 9a^4c^4d^2h^2m^2 - 18a^3c^5d^2g^2k^2 - 9a^3c^5e^2g^2j^2 - 9a^3c^5e^2f^2k^2 - 9a^3c^5d^2h^2j^2 - 9a^3c^5d^2f^2l^2 \\
& - 9a^3c^5d^2e^2m^2 - 3a^4b^2c^2h^4l^2 - 18a^4b^2c^2f^3m^3 + 12a^3b^2c^3f^4m^2 - 9a^3c^5f^2g^2h^2 + 4a^4b^2c^2g^3l^3 - 3a^2b^4c^2f^4m^2 + 14a^3b^3c^2e^3m^3 - 5a^3b^3c^2f^3l^3 \\
& - 3a^4b^2c^2g^2k^4 - 3a^3b^2c^3g^4k^2 + a^3b^3c^2g^3k^3 - 20a^2b^4c^2d^3m^3 - 18a^3b^2c^3e^3l^3 + 16a^3b^2c^3d^3m^3 + 12a^4b^2c^2e^2l^4 + 12a^2b^2c^4e^4l^2 - 9a^2c^6d^2e^2j^2 \\
& + 6a^2b^4c^2e^3l^3 + 4a^3b^2c^3f^3k^3 + 14a^2b^3c^3d^3l^3 - 9a^2c^6e^2f^2g^2 - 9a^2c^6d^2f^2h^2 - 5a^2b^3c^3e^3k^3 - 3a^3b^2c^3f^2j^4 - 3a^2b^2c^4f^4j^2 + a^2b^3c^3f^3j^3 - 18 \\
& a^2b^2c^4d^3k^3 + 12a^3b^2c^3d^2k^4 + 4a^2b^2c^4e^3j^3 - 3a^2b^4c^2d^2k^4 - 3a^2b^2c^4e^2h^4 + 6a^7c^2k^4l^2m - 3a^7b^3k^4l^2m^4 - 6a^7c^2h^3k^2m^4 - 6a^7c^2g^3l^2m^4 + 3a^6b^3c^2h^3l^5 - 6a^2c^7d^4e^2j \\
& - 6a^2c^7d^4f^2h - 3b^3c^7d^4e^2f + 6a^2c^7d^4e^2f + 3a^2b^3c^6e^5h - a^5b^2c^2j^3l^3 - a^3b^4c^2g^3l^3 - ab^4c^3e^3j^3 - ab^2c^5e^3g^3 + 3a^7b^3j^3m^5 + 6a^7c^2f^3m^5 + 6a^2c^7d^5k + 3b^3c^7d^5g - 3a^6c^2j^4m^2 - 3a^6b^2j^2m^4 + 2a^6c^2j^3l^3 + a^5b^3j^3m^3 - 2a^6c^2h^3m^3 - 3a^6c^2h^2l^4 - 3a^5c^3h^4l^2 - ab^6c^2e^3l^3 + 20a^5c^3f^3m^3 - 15a^6c^2f^2m^4 - 15a^4c^4f^4m^2 + 2a^5c^3h^3k^3 - 2a^5c^3g^3l^3 + a^3b^5g^3m^3 - 3a^5c^3g^2k^4 - 3a^4c^4g^4k^2 - 3a^4b^4f^2m^4 + 20a^4c^4e^3l^3 - 15a^5c^3e^2l^4 - 15a^3c^5e^4l^2 + 2a^4c^4g^3j^3 - 2a^4c^4f^3k^3 - 2a^4c^4d^3m^3 - 3b^4c^4d^4k^2 - 3a^4c^4f^2j^4 - 3a^3c^5f^4j^2 + 20a^3c^5d^3k^3 - 15a^4c^4d^2k^4 - 15a^2c^6d^4k^2 - 2a^3c^5e^3j^3 + b^5c^3d^3j^3 + 2a^3c^5f^3h^3 - 3a^3c^5e^2h^4 - 3a^2c^6e^4h^2 - 3b^2c^6d^4g^2 + 2a^2c^6e^3g^3 - 2a^2c^6d^3h^3 + b^3c^5d^3g^3
\end{aligned}$$

$$\begin{aligned}
& - 3a^2c^6d^2g^4 - a^4b^2c^2h^3k^3 - a^3b^2c^3g^3j^3 - a^2b^4c^2f^3k^3 - a^2b^2c^4f^3h^3 + 2a^7c^3k^3m^3 + a^7b^1l^3m^3 - 3a^7 \\
& *c^j^2m^4 + 6a^3c^5f^5m - 3a^6b^2f^5m^5 + 6a^6c^2e^1l^5 + 6a^2c^6e^5l + b^7c^d^3l^3 + a^b^7e^3m^3 - 3b^2c^6d^5k + 6a^5c^3d^k^5 \\
& - 3a^*c^7d^4g^2 + 2a^*c^7d^3f^3 + b^*c^7d^3e^3 - a^6b^2k^3m^3 - a^4b^4h^3m^3 - a^2b^6f^3m^3 - b^6c^2d^3k^3 - b^4c^4d^3h^3 - b^2c^ \\
& ^6d^3f^3 - b^8d^3m^3 - a^6c^2k^6 - a^5c^3j^6 - a^4c^4h^6 - a^3c^5g^6 - a^2c^6f^6 - a^7c^1l^6 - a^*c^7e^6 - a^8m^6 - c^8d^6, z, k1)*(ro \\
& ot(34992a^4b^2c^8z^6 - 8748a^3b^4c^7z^6 + 729a^2b^6c^6z^6 - 46656a^5c^9z^6 + 34992a^4b^3c^6mz^5 - 8748a^3b^5c^5mz^5 + 729a^2 \\
& *b^7c^4mz^5 - 34992a^4b^2c^7jz^5 + 8748a^3b^4c^6jz^5 - 729a^2 \\
& *b^6c^5jz^5 - 46656a^5b^*c^7mz^5 + 46656a^5c^8jz^5 + 34992a^5b^* \\
& c^6j^*mz^4 - 11664a^5b^*c^6k^1z^4 + 3888a^4b^*c^7f^*jz^4 + 3888a^4b^* \\
& c^7e^*kz^4 + 3888a^4b^*c^7d^1z^4 + 3888a^4b^*c^7g^*hz^4 + 3888a^3b^* \\
& c^8d^*ez^4 + 243a^*b^5c^6d^*ez^4 - 25272a^4b^3c^5j^*mz^4 + 9720a^4 \\
& *b^3c^5k^1z^4 + 6075a^3b^5c^4j^*mz^4 - 2673a^3b^5c^4k^1z^4 - 48 \\
& 6a^2b^7c^3j^*mz^4 + 243a^2b^7c^3k^1z^4 - 7776a^4b^2c^6h^*kz^4 \\
& - 7776a^4b^2c^6g^1z^4 - 7776a^4b^2c^6f^*mz^4 + 2430a^3b^4c^5h^* \\
& kz^4 + 2430a^3b^4c^5g^1z^4 + 2430a^3b^4c^5f^*mz^4 - 243a^2b^6c^ \\
& ^4h^*kz^4 - 243a^2b^6c^4g^1z^4 - 243a^2b^6c^4f^*mz^4 - 1944a^3b^ \\
& ^3c^6f^*jz^4 - 1944a^3b^3c^6e^*kz^4 - 1944a^3b^3c^6d^1z^4 + 243* \\
& a^2b^5c^5f^*jz^4 + 243a^2b^5c^5e^*kz^4 + 243a^2b^5c^5d^1z^4 - 1 \\
& 944a^3b^3c^6g^*hz^4 + 243a^2b^5c^5g^*hz^4 + 3888a^3b^2c^7e^*gz^ \\
& 4 + 3888a^3b^2c^7d^*hz^4 - 486a^2b^4c^6e^*gz^4 - 486a^2b^4c^6d^* \\
& hz^4 - 1944a^2b^3c^7d^*ez^4 + 7776a^5c^7h^*kz^4 + 7776a^5c^7g^1* \\
& z^4 + 7776a^5c^7f^*mz^4 - 7776a^4c^8e^*gz^4 - 7776a^4c^8d^*hz^4 - \\
& 13608a^5b^2c^5m^2z^4 + 11421a^4b^4c^4m^2z^4 - 2916a^3b^6c^3m^ \\
& 2z^4 + 243a^2b^8c^2m^2z^4 + 13608a^4b^2c^6j^2z^4 - 3159a^3b^4* \\
& c^5j^2z^4 + 243a^2b^6c^4j^2z^4 + 1944a^3b^2c^7f^2z^4 - 243a^2* \\
& b^4c^6f^2z^4 - 3888a^6c^6m^2z^4 - 19440a^5c^7j^2z^4 - 3888a^4c^ \\
& ^8f^2z^4 + 3078a^4b^4c^3k^1mz^3 - 2592a^5b^2c^4k^1mz^3 - 891* \\
& a^3b^6c^2k^1mz^3 - 4536a^4b^3c^4j^*k^1z^3 + 1053a^3b^5c^3j^*k^1 \\
& *z^3 - 81a^2b^7c^2j^*k^1z^3 - 2592a^4b^3c^4h^*k^1mz^3 - 2592a^4b^3 \\
& *c^4g^1mz^3 + 810a^3b^5c^3h^*k^1mz^3 + 810a^3b^5c^3g^1mz^3 - 81 \\
& *a^2b^7c^2h^*k^1mz^3 - 81a^2b^7c^2g^1mz^3 + 7776a^4b^2c^5f^*j^*m \\
& *z^3 + 3888a^4b^2c^5h^*j^*k^1z^3 + 3888a^4b^2c^5g^*j^1z^3 - 3888a^4b^ \\
& 2c^5f^*k^1z^3 - 2916a^3b^4c^4f^*j^*mz^3 + 1458a^3b^4c^4f^*k^1z^3 - \\
& 972a^3b^4c^4h^*j^*k^1z^3 - 972a^3b^4c^4g^*j^1z^3 - 486a^3b^4c^4e^* \\
& k^1mz^3 - 486a^3b^4c^4d^1mz^3 + 324a^2b^6c^3f^*j^*mz^3 - 162a^2b^ \\
& ^6c^3f^*k^1z^3 + 81a^2b^6c^3h^*j^*k^1z^3 + 81a^2b^6c^3g^*j^1z^3 + 81 \\
& *a^2b^6c^3e^*k^1mz^3 + 81a^2b^6c^3d^1mz^3 - 486a^3b^4c^4g^*h^*mz^ \\
& ^3 + 81a^2b^6c^3g^*h^*mz^3 + 648a^3b^3c^5e^*j^*k^1z^3 + 648a^3b^3c^5 \\
& *d^*j^1z^3 - 81a^2b^5c^4e^*j^*k^1z^3 - 81a^2b^5c^4d^*j^1z^3 + 2592a^3 \\
& *b^3c^5e^*g^1mz^3 + 2592a^3b^3c^5d^*h^*mz^3 - 1296a^3b^3c^5f^*h^*k^1z^ \\
& 3 - 1296a^3b^3c^5f^*g^1z^3 - 1296a^3b^3c^5e^*h^1z^3 + 648a^3b^3c^ \\
& ^5g^*h^1z^3 - 324a^2b^5c^4e^*g^1mz^3 - 324a^2b^5c^4d^*h^*mz^3 + 162* \\
& a^2b^5c^4f^*h^*k^1z^3 + 162a^2b^5c^4f^*g^1z^3 + 162a^2b^5c^4e^*h^1z^ \\
& ^3 - 81a^2b^5c^4g^*h^1z^3 + 5184a^3b^2c^6d^*e^*mz^3 - 2592a^3b^2c^ \\
& ^6e^*g^1z^3 - 2592a^3b^2c^6d^*h^1z^3 - 2106a^2b^4c^5d^*e^*mz^3 + 12 \\
& 96a^3b^2c^6e^*f^*k^1z^3 + 1296a^3b^2c^6d^*g^1k^1z^3 + 1296a^3b^2c^6d^* \\
& f^1z^3 + 324a^2b^4c^5e^*g^1j^1z^3 + 324a^2b^4c^5d^*h^1j^1z^3 - 162a^2b^ \\
& ^4c^5e^*f^*k^1z^3 - 162a^2b^4c^5d^*g^1k^1z^3 - 162a^2b^4c^5d^*f^1z^3 + \\
& 1296a^3b^2c^6f^*g^*h^1z^3 - 162a^2b^4c^5f^*g^*h^1z^3 + 1944a^2b^3c^6d^ \\
& *e^*j^1z^3 - 1296a^2b^2c^7d^*e^*f^1z^3 + 81a^2b^8c^*k^1mz^3 + 6480a^5b^ \\
& *c^5j^*k^1z^3 + 2592a^5b^*c^5h^*k^1mz^3 + 2592a^5b^*c^5g^1mz^3 - 1296 \\
& *a^4b^*c^6e^*j^*k^1z^3 - 1296a^4b^*c^6d^*j^1z^3 - 5184a^4b^*c^6e^*g^1mz^3 \\
& - 5184a^4b^*c^6d^*h^1mz^3 + 2592a^4b^*c^6f^*h^1k^1z^3 + 2592a^4b^*c^6f^*g^ \\
& 1z^3 + 2592a^4b^*c^6e^*h^1l^1z^3 - 1296a^4b^*c^6g^*h^1j^1z^3 + 243a^*b^6c^4 \\
& *d^*e^*mz^3 - 3888a^3b^*c^7d^*e^*j^1z^3 - 243a^*b^5c^5d^*e^*j^1z^3 + 162a^*b^4
\end{aligned}$$

$$\begin{aligned}
& *c^6*d*e*f*z^3 - 2592*a^6*c^5*k*l*m*z^3 - 5184*a^5*c^6*h*j*k*z^3 - 5184*a^5 \\
& *c^6*g*j*l*z^3 - 5184*a^5*c^6*f*j*m*z^3 + 2592*a^5*c^6*f*k*l*z^3 + 2592*a^5 \\
& *c^6*e*k*m*z^3 + 2592*a^5*c^6*d*l*m*z^3 + 2592*a^5*c^6*g*h*m*z^3 + 5184*a^4 \\
& *c^7*e*g*j*z^3 + 5184*a^4*c^7*d*h*j*z^3 - 2592*a^4*c^7*e*f*k*z^3 - 2592*a^4 \\
& *c^7*d*g*k*z^3 - 2592*a^4*c^7*d*f*l*z^3 - 2592*a^4*c^7*d*e*m*z^3 - 2592*a^4 \\
& *c^7*f*g*h*z^3 + 2592*a^3*c^8*d*e*f*z^3 + 6480*a^5*b^2*c^4*j*m^2*z^3 + 6480 \\
& *a^4*b^3*c^4*j^2*m*z^3 - 5022*a^4*b^4*c^3*j*m^2*z^3 - 1296*a^3*b^5*c^3*j^2* \\
& m*z^3 + 1134*a^3*b^6*c^2*j*m^2*z^3 + 81*a^2*b^7*c^2*j^2*m*z^3 + 2592*a^4*b^ \\
& 3*c^4*h*l^2*z^3 - 1944*a^4*b^2*c^5*h^2*l*z^3 - 810*a^3*b^5*c^3*h*l^2*z^3 + \\
& 729*a^3*b^4*c^4*h^2*l*z^3 + 81*a^2*b^7*c^2*h*l^2*z^3 - 81*a^2*b^6*c^3*h^2*l \\
& *z^3 - 5184*a^4*b^3*c^4*f*m^2*z^3 + 1620*a^3*b^5*c^3*f*m^2*z^3 + 1296*a^3*b \\
& ^3*c^5*f^2*m*z^3 - 162*a^2*b^7*c^2*f*m^2*z^3 - 162*a^2*b^5*c^4*f^2*m*z^3 - \\
& 1944*a^4*b^2*c^5*g*k^2*z^3 + 729*a^3*b^4*c^4*g*k^2*z^3 - 648*a^3*b^3*c^5*g^ \\
& 2*k*z^3 - 81*a^2*b^6*c^3*g*k^2*z^3 + 81*a^2*b^5*c^4*g^2*k*z^3 - 1944*a^4*b^ \\
& 2*c^5*e*l^2*z^3 + 729*a^3*b^4*c^4*e*l^2*z^3 + 648*a^3*b^2*c^6*e^2*l*z^3 - 8 \\
& 1*a^2*b^6*c^3*e*l^2*z^3 - 81*a^2*b^4*c^5*e^2*l*z^3 + 1296*a^3*b^3*c^5*f*j^2 \\
& *z^3 - 1296*a^3*b^2*c^6*f^2*j*z^3 - 162*a^2*b^5*c^4*f*j^2*z^3 + 162*a^2*b^4 \\
& *c^5*f^2*j*z^3 - 648*a^3*b^3*c^5*d*k^2*z^3 + 81*a^2*b^5*c^4*d*k^2*z^3 + 648 \\
& *a^3*b^2*c^6*e*h^2*z^3 - 81*a^2*b^4*c^5*e*h^2*z^3 - 648*a^2*b^2*c^7*d^2*g*z \\
& ^3 - 10368*a^5*b*c^5*j^2*m*z^3 - 81*a^2*b^8*c*j*m^2*z^3 - 2592*a^5*b*c^5*h* \\
& l^2*z^3 + 5184*a^5*b*c^5*f*m^2*z^3 - 2592*a^4*b*c^6*f^2*m*z^3 + 1296*a^4*b* \\
& c^6*g^2*k*z^3 - 2592*a^4*b*c^6*f*j^2*z^3 + 1296*a^4*b*c^6*d*k^2*z^3 + 81*a* \\
& b^4*c^6*d^2*g*z^3 + 2592*a^6*c^5*j*m^2*z^3 + 1296*a^5*c^6*h^2*l*z^3 + 1296* \\
& a^5*c^6*g*k^2*z^3 + 1296*a^5*c^6*e*l^2*z^3 - 1296*a^4*c^7*e^2*l*z^3 + 2592* \\
& a^4*c^7*f^2*j*z^3 - 2592*a^6*b*c^4*m^3*z^3 - 324*a^3*b^7*c*m^3*z^3 - 27*a^2 \\
& *b^8*c*l^3*z^3 - 1296*a^4*c^7*e*h^2*z^3 - 864*a^5*b*c^5*k^3*z^3 + 1296*a^3* \\
& c^8*d^2*g*z^3 + 432*a^4*b*c^6*h^3*z^3 + 27*a*b^4*c^6*e^3*z^3 - 432*a^2*b*c^ \\
& 8*d^3*z^3 + 216*a*b^3*c^7*d^3*z^3 + 1134*a^4*b^5*c^2*m^3*z^3 - 432*a^5*b^3* \\
& c^3*m^3*z^3 + 1512*a^5*b^2*c^4*l^3*z^3 - 1107*a^4*b^4*c^3*l^3*z^3 + 297*a^3 \\
& *b^6*c^2*l^3*z^3 + 864*a^4*b^3*c^4*k^3*z^3 - 270*a^3*b^5*c^3*k^3*z^3 + 27*a \\
& ^2*b^7*c^2*k^3*z^3 - 2592*a^4*b^2*c^5*j^3*z^3 + 486*a^3*b^4*c^4*j^3*z^3 - 2 \\
& 7*a^2*b^6*c^3*j^3*z^3 - 216*a^3*b^3*c^5*h^3*z^3 + 27*a^2*b^5*c^4*h^3*z^3 + \\
& 216*a^3*b^2*c^6*g^3*z^3 - 27*a^2*b^4*c^5*g^3*z^3 - 216*a^2*b^2*c^7*e^3*z^3 \\
& - 432*a^6*c^5*l^3*z^3 + 27*a^2*b^9*m^3*z^3 + 4320*a^5*c^6*j^3*z^3 - 432*a^4 \\
& *c^7*g^3*z^3 + 432*a^3*c^8*e^3*z^3 - 27*b^5*c^6*d^3*z^3 + 81*a^3*b^6*c*j*k* \\
& l*m*z^2 - 1296*a^5*b*c^4*h*j*k*m*z^2 - 1296*a^5*b*c^4*g*j*l*m*z^2 + 1296*a^ \\
& 5*b*c^4*f*k*l*m*z^2 - 81*a^2*b^7*c*f*k*l*m*z^2 + 2592*a^4*b*c^5*e*g*j*m*z^2 \\
& + 2592*a^4*b*c^5*d*h*j*m*z^2 - 1296*a^4*b*c^5*f*h*j*k*z^2 - 1296*a^4*b*c^5 \\
& *f*g*j*l*z^2 - 1296*a^4*b*c^5*e*f*k*m*z^2 - 1296*a^4*b*c^5*d*f*l*m*z^2 - 64 \\
& 8*a^4*b*c^5*e*h*j*l*z^2 - 648*a^4*b*c^5*e*g*k*l*z^2 - 648*a^4*b*c^5*d*h*k*l \\
& *z^2 - 648*a^4*b*c^5*d*g*k*m*z^2 - 1296*a^4*b*c^5*f*g*h*m*z^2 - 162*a*b^6*c \\
& ^3*d*e*j*m*z^2 + 81*a*b^6*c^3*d*e*k*l*z^2 + 1296*a^3*b*c^6*d*e*f*m*z^2 - 64 \\
& 8*a^3*b*c^6*d*f*g*k*z^2 - 648*a^3*b*c^6*d*e*h*k*z^2 - 648*a^3*b*c^6*d*e*g*l \\
& *z^2 - 81*a*b^5*c^4*d*e*h*k*z^2 - 81*a*b^5*c^4*d*e*g*l*z^2 + 81*a*b^5*c^4*d \\
& *e*f*m*z^2 - 81*a*b^4*c^5*d*e*f*j*z^2 + 81*a*b^4*c^5*d*e*g*h*z^2 + 648*a^5* \\
& b^2*c^3*j*k*l*m*z^2 - 567*a^4*b^4*c^2*j*k*l*m*z^2 - 1944*a^4*b^3*c^3*f*k*l* \\
& m*z^2 + 729*a^3*b^5*c^2*f*k*l*m*z^2 + 648*a^4*b^3*c^3*h*j*k*m*z^2 + 648*a^4 \\
& *b^3*c^3*g*j*l*m*z^2 - 81*a^3*b^5*c^2*h*j*k*m*z^2 - 81*a^3*b^5*c^2*g*j*l*m* \\
& z^2 + 1944*a^4*b^2*c^4*f*j*k*l*z^2 - 729*a^3*b^4*c^3*f*j*k*l*z^2 + 648*a^4* \\
& b^2*c^4*e*j*k*m*z^2 + 648*a^4*b^2*c^4*d*j*l*m*z^2 - 81*a^3*b^4*c^3*e*j*k*m* \\
& z^2 - 81*a^3*b^4*c^3*d*j*l*m*z^2 + 81*a^2*b^6*c^2*f*j*k*l*z^2 + 1296*a^4*b^ \\
& 2*c^4*f*h*k*m*z^2 + 1296*a^4*b^2*c^4*f*g*l*m*z^2 + 648*a^4*b^2*c^4*g*h*j*m* \\
& z^2 - 648*a^3*b^4*c^3*f*h*k*m*z^2 - 648*a^3*b^4*c^3*f*g*l*m*z^2 - 324*a^4*b \\
& ^2*c^4*g*h*k*l*z^2 - 324*a^4*b^2*c^4*e*h*l*m*z^2 + 81*a^3*b^4*c^3*g*h*k*l*z \\
& ^2 - 81*a^3*b^4*c^3*g*h*j*m*z^2 + 81*a^2*b^6*c^2*f*h*k*m*z^2 + 81*a^2*b^6*c \\
& ^2*f*g*l*m*z^2 - 1296*a^3*b^3*c^4*e*g*j*m*z^2 - 1296*a^3*b^3*c^4*d*h*j*m*z^ \\
& 2 + 648*a^3*b^3*c^4*f*h*j*k*z^2 + 648*a^3*b^3*c^4*f*g*j*l*z^2 + 648*a^3*b^3 \\
& *c^4*e*f*k*m*z^2 + 648*a^3*b^3*c^4*d*f*l*m*z^2 + 486*a^3*b^3*c^4*e*g*k*l*z^ \\
& 2 + 486*a^3*b^3*c^4*d*h*k*l*z^2 + 162*a^3*b^3*c^4*e*h*j*l*z^2 + 162*a^3*b^3
\end{aligned}$$



$$\begin{aligned}
& *c^4*d*g*k*m*z^2 + 162*a^2*b^5*c^3*e*g*j*m*z^2 + 162*a^2*b^5*c^3*d*h*j*m*z^2 \\
& - 81*a^2*b^5*c^3*f*h*j*k*z^2 - 81*a^2*b^5*c^3*f*g*j*l*z^2 - 81*a^2*b^5*c^3 \\
& *e*g*k*l*z^2 - 81*a^2*b^5*c^3*e*f*k*m*z^2 - 81*a^2*b^5*c^3*d*h*k*l*z^2 - 8 \\
& 1*a^2*b^5*c^3*d*f*l*m*z^2 + 648*a^3*b^3*c^4*f*g*h*m*z^2 - 81*a^2*b^5*c^3*f \\
& *g*h*m*z^2 - 3240*a^3*b^2*c^5*d*e*j*m*z^2 + 1620*a^3*b^2*c^5*d*e*k*l*z^2 + 1 \\
& 377*a^2*b^4*c^4*d*e*j*m*z^2 - 648*a^3*b^2*c^5*e*f*j*k*z^2 - 648*a^3*b^2*c^5 \\
& *d*f*j*l*z^2 - 648*a^2*b^4*c^4*d*e*k*l*z^2 - 324*a^3*b^2*c^5*d*g*j*k*z^2 + \\
& 81*a^2*b^4*c^4*e*f*j*k*z^2 + 81*a^2*b^4*c^4*d*f*j*l*z^2 + 972*a^3*b^2*c^5*e \\
& *f*h*l*z^2 - 648*a^3*b^2*c^5*f*g*h*j*z^2 - 324*a^3*b^2*c^5*e*g*h*k*z^2 - 32 \\
& 4*a^3*b^2*c^5*d*g*h*l*z^2 - 162*a^2*b^4*c^4*e*f*h*l*z^2 + 81*a^2*b^4*c^4*f \\
& *g*h*j*z^2 + 81*a^2*b^4*c^4*e*g*h*k*z^2 + 81*a^2*b^4*c^4*d*g*h*l*z^2 - 648*a \\
& ^2*b^3*c^5*d*e*f*m*z^2 + 486*a^2*b^3*c^5*d*e*h*k*z^2 + 486*a^2*b^3*c^5*d*e \\
& *g*l*z^2 + 162*a^2*b^3*c^5*d*f*g*k*z^2 + 648*a^2*b^2*c^6*d*e*f*j*z^2 - 324*a \\
& ^2*b^2*c^6*d*e*g*h*z^2 - 1296*a^6*b*c^3*k*l*m^2*z^2 - 81*a^4*b^5*c*k*l*m^2* \\
& z^2 - 1296*a^5*b*c^4*j^2*k*l*z^2 - 324*a^5*b*c^4*h^2*l*m*z^2 + 324*a^5*b*c^ \\
& 4*h*k^2*l*z^2 - 324*a^5*b*c^4*g*k^2*m*z^2 + 972*a^5*b*c^4*h*j*l^2*z^2 + 324 \\
& *a^5*b*c^4*g*k*l^2*z^2 - 324*a^5*b*c^4*e*l^2*m*z^2 - 324*a^4*b*c^5*e^2*l*m* \\
& z^2 - 1944*a^5*b*c^4*f*j*m^2*z^2 + 1296*a^5*b*c^4*e*k*m^2*z^2 + 1296*a^5*b* \\
& c^4*d*l*m^2*z^2 + 648*a^4*b*c^5*f^2*j*m*z^2 + 81*a^2*b^7*c*f*j*m^2*z^2 + 12 \\
& 96*a^5*b*c^4*g*h*m^2*z^2 - 324*a^4*b*c^5*g^2*j*k*z^2 + 324*a^4*b*c^5*g^2*h* \\
& l*z^2 + 972*a^4*b*c^5*f*h^2*l*z^2 + 324*a^4*b*c^5*g*h^2*k*z^2 - 324*a^4*b*c \\
& ^5*e*h^2*m*z^2 - 324*a^4*b*c^5*d*j*k^2*z^2 - 324*a^3*b*c^6*d^2*j*k*z^2 + 97 \\
& 2*a^4*b*c^5*f*g*k^2*z^2 + 972*a^3*b*c^6*d^2*g*m*z^2 + 324*a^4*b*c^5*e*h*k^2 \\
& *z^2 + 324*a^3*b*c^6*d^2*h*l*z^2 + 81*a*b^5*c^4*d^2*g*m*z^2 + 972*a^4*b*c^5 \\
& *e*f*l^2*z^2 + 324*a^4*b*c^5*d*g*l^2*z^2 - 324*a^3*b*c^6*e^2*h*j*z^2 + 324* \\
& a^3*b*c^6*e^2*g*k*z^2 - 324*a^3*b*c^6*e^2*f*l*z^2 - 1296*a^4*b*c^5*d*e*m^2* \\
& z^2 + 81*a*b^7*c^2*d*e*m^2*z^2 - 324*a^3*b*c^6*d*g^2*j*z^2 - 81*a*b^4*c^5*d \\
& ^2*g*j*z^2 + 81*a*b^4*c^5*d^2*e*l*z^2 + 324*a^3*b*c^6*e*g^2*h*z^2 + 81*a*b^ \\
& 4*c^5*d*e^2*k*z^2 + 1296*a^3*b*c^6*d*e*j^2*z^2 - 324*a^3*b*c^6*e*f*h^2*z^2 \\
& + 324*a^3*b*c^6*d*g*h^2*z^2 + 81*a*b^5*c^4*d*e*j^2*z^2 - 324*a^2*b*c^7*d^2* \\
& f*g*z^2 + 324*a^2*b*c^7*d^2*e*h*z^2 + 81*a*b^3*c^6*d^2*f*g*z^2 - 81*a*b^3*c \\
& ^6*d^2*e*h*z^2 + 324*a^2*b*c^7*d^2*g*z^2 - 81*a*b^3*c^6*d^2*g*z^2 + 129 \\
& 6*a^6*c^4*j*k*l*m*z^2 - 1296*a^5*c^5*f*j*k*l*z^2 - 1296*a^5*c^5*e*j*k*m*z^2 \\
& - 1296*a^5*c^5*d*j*l*m*z^2 - 1296*a^5*c^5*g*h*j*m*z^2 + 1296*a^5*c^5*e*h*l \\
& *m*z^2 + 1296*a^4*c^6*e*f*j*k*z^2 + 1296*a^4*c^6*d*g*j*k*z^2 + 1296*a^4*c^6 \\
& *d*f*j*l*z^2 - 1296*a^4*c^6*d*e*k*l*z^2 + 1296*a^4*c^6*d*e*j*m*z^2 + 1296*a \\
& ^4*c^6*f*g*h*j*z^2 - 1296*a^4*c^6*e*f*h*l*z^2 - 1296*a^3*c^7*d*e*f*j*z^2 + \\
& 648*a^5*b^3*c^2*k*l*m^2*z^2 + 648*a^4*b^3*c^3*j^2*k*l*z^2 + 486*a^5*b^2*c^3 \\
& *h*l^2*m*z^2 - 81*a^4*b^4*c^2*h*l^2*m*z^2 + 81*a^4*b^3*c^3*h^2*l*m*z^2 - 81 \\
& *a^3*b^5*c^2*j^2*k*l*z^2 - 162*a^4*b^2*c^4*g^2*k*m*z^2 - 81*a^4*b^3*c^3*h*k \\
& ^2*l*z^2 + 81*a^4*b^3*c^3*g*k^2*m*z^2 - 567*a^4*b^3*c^3*h*j*l^2*z^2 + 486*a \\
& ^4*b^2*c^4*h^2*j*l*z^2 - 81*a^4*b^3*c^3*g*k*l^2*z^2 + 81*a^4*b^3*c^3*e*l^2* \\
& m*z^2 + 81*a^3*b^5*c^2*h*j*l^2*z^2 - 81*a^3*b^4*c^3*h^2*j*l*z^2 + 81*a^3*b^ \\
& 3*c^4*e^2*l*m*z^2 + 2430*a^4*b^3*c^3*f*j*m^2*z^2 - 2268*a^4*b^2*c^4*f*j^2*m \\
& *z^2 - 810*a^3*b^5*c^2*f*j*m^2*z^2 + 810*a^3*b^4*c^3*f*j^2*m*z^2 - 648*a^4* \\
& b^3*c^3*e*k*m^2*z^2 - 648*a^4*b^3*c^3*d*l*m^2*z^2 - 648*a^4*b^2*c^4*h*j^2*k \\
& *z^2 - 648*a^4*b^2*c^4*g*j^2*l*z^2 - 162*a^3*b^3*c^4*f^2*j*m*z^2 + 81*a^3*b \\
& ^5*c^2*e*k*m^2*z^2 + 81*a^3*b^5*c^2*d*l*m^2*z^2 + 81*a^3*b^4*c^3*h*j^2*k*z^ \\
& 2 + 81*a^3*b^4*c^3*g*j^2*l*z^2 - 81*a^2*b^6*c^2*f*j^2*m*z^2 - 648*a^4*b^3*c \\
& ^3*g*h*m^2*z^2 + 486*a^4*b^2*c^4*g*j*k^2*z^2 - 486*a^4*b^2*c^4*e*k^2*l*z^2 \\
& + 486*a^3*b^2*c^5*d^2*k*m*z^2 - 162*a^4*b^2*c^4*d*k^2*m*z^2 + 81*a^3*b^5*c^ \\
& 2*g*h*m^2*z^2 - 81*a^3*b^4*c^3*g*j*k^2*z^2 + 81*a^3*b^4*c^3*e*k^2*l*z^2 + 8 \\
& 1*a^3*b^3*c^4*g^2*j*k*z^2 - 81*a^2*b^4*c^4*d^2*k*m*z^2 + 486*a^4*b^2*c^4*e \\
& *j*l^2*z^2 - 486*a^4*b^2*c^4*d*k*l^2*z^2 - 162*a^3*b^2*c^5*e^2*j*l*z^2 - 81* \\
& a^3*b^4*c^3*e*j*l^2*z^2 + 81*a^3*b^4*c^3*d*k*l^2*z^2 - 81*a^3*b^3*c^4*g^2*h \\
& *l*z^2 - 1458*a^4*b^2*c^4*f*h*l^2*z^2 + 648*a^3*b^4*c^3*f*h*l^2*z^2 - 567*a \\
& ^3*b^3*c^4*f*h^2*l*z^2 + 486*a^3*b^2*c^5*e^2*h*m*z^2 - 81*a^3*b^3*c^4*g*h^2 \\
& *k*z^2 + 81*a^3*b^3*c^4*e*h^2*m*z^2 - 81*a^2*b^6*c^2*f*h*l^2*z^2 + 81*a^2*b \\
& ^5*c^3*f*h^2*l*z^2 - 81*a^2*b^4*c^4*e^2*h*m*z^2 - 1296*a^4*b^2*c^4*e*g*m^2*
\end{aligned}$$

$$\begin{aligned}
& z^2 - 1296a^4b^2c^4d^4h^2m^2z^2 + 648a^3b^4c^3eg^2m^2z^2 + 648a^3b^4c^3d^4h^2m^2z^2 + 81a^3b^3c^4d^4jk^2z^2 - 81a^2b^6c^2eg^2m^2z^2 \\
& - 81a^2b^6c^2d^4h^2m^2z^2 + 81a^2b^3c^5d^2jk^2z^2 - 567a^3b^3c^4f^2g^2k^2z^2 - 567a^2b^3c^5d^2g^2m^2z^2 + 486a^3b^2c^5f^2g^2k^2z^2 \\
& - 486a^3b^2c^5eg^2l^2z^2 + 486a^3b^2c^5d^2g^2m^2z^2 - 81a^3b^3c^4e^2h^2k^2z^2 + 81a^2b^5c^3f^2g^2k^2z^2 - 81a^2b^4c^4f^2g^2k^2z^2 + \\
& 81a^2b^4c^4eg^2l^2z^2 - 81a^2b^4c^4d^2g^2m^2z^2 - 81a^2b^3c^5d^2h^2l^2z^2 - 567a^3b^3c^4e^2f^2l^2z^2 - 486a^3b^2c^5d^2h^2k^2z^2 - 162 \\
& a^3b^2c^5e^2h^2j^2z^2 - 81a^3b^3c^4d^2g^2l^2z^2 + 81a^2b^5c^3e^2f^2l^2z^2 + 81a^2b^4c^4d^2h^2k^2z^2 + 81a^2b^3c^5e^2h^2j^2z^2 - 81a^2b^3c^5e^2g^2k^2z^2 \\
& + 81a^2b^3c^5e^2f^2l^2z^2 + 1944a^3b^3c^4d^2em^2z^2 - 729a^2b^5c^3d^2em^2z^2 + 648a^3b^2c^5eg^2j^2z^2 + 648a^3b^2c^5d^4h^2j^2z^2 - 81a^2b^4c^4e^2g^2j^2z^2 - 81a^2b^4c^4d^2h^2j^2z^2 \\
& + 486a^3b^2c^5d^2f^2k^2z^2 + 486a^2b^2c^6d^2g^2j^2z^2 - 486a^2b^2c^6d^2e^2l^2z^2 - 162a^2b^2c^6d^2f^2k^2z^2 - 81a^2b^4c^4d^2f^2k^2z^2 \\
& + 81a^2b^3c^5d^2g^2j^2z^2 - 486a^2b^2c^6d^2e^2k^2z^2 - 81a^2b^3c^5eg^2h^2z^2 - 648a^2b^3c^5d^2e^2j^2z^2 - 162a^2b^2c^6e^2f^2h^2z^2 \\
& + 81a^2b^3c^5e^2f^2h^2z^2 - 81a^2b^3c^5d^2g^2h^2z^2 - 162a^2b^2c^6d^2f^2g^2z^2 - 189a^5b^3c^2l^3m^2z^2 + 162a^5b^2c^3k^3m^2z^2 - 27a^4b^4c^2k^3m^2z^2 - 702a^4b^3c^3j^3m^2z^2 - 81a^3b^6c^2j^2m^2z^2 \\
& + 81a^3b^5c^2j^3m^2z^2 - 54a^5b^3c^2j^3m^3z^2 - 486a^5b^2c^3j^3m^3z^2 + 216a^4b^4c^2j^3m^3z^2 - 189a^4b^3c^3j^3k^3z^2 - 54a^4b^2c^4h^3m^3z^2 + 27a^3b^5c^2j^3k^3z^2 + 27a^3b^3c^4g^3m^3z^2 - 810 \\
& a^4b^4c^2f^3m^3z^2 + 540a^5b^2c^3f^3m^3z^2 - 324a^3b^2c^5f^3m^3z^2 + 54a^2b^4c^4f^3m^3z^2 + 675a^4b^3c^3f^3l^3z^2 - 243a^3b^5c^2f^3l^3z^2 - 189a^2b^3c^5e^3m^3z^2 + 27a^3b^3c^4h^3j^3z^2 - 486a^4b^2c^4f^3k^3z^2 - 486a^2b^2c^6d^3m^3z^2 + 216a^3b^4c^3f^3k^3z^2 \\
& - 54a^3b^2c^5g^3j^3z^2 - 27a^2b^6c^2f^3k^3z^2 - 270a^3b^3c^4f^3j^3z^2 - 54a^2b^3c^5f^3j^3z^2 + 27a^2b^5c^3f^3j^3z^2 + 162a^2b^2c^6e^3j^3z^2 + 162a^3b^2c^5f^3h^3z^2 - 27a^2b^4c^4f^3h^3z^2 + 27a^2b^3c^5f^3g^3z^2 + 81a^2b^2c^7d^2e^2z^2 - 648a^6c^4h^2l^2m^2z^2 \\
& + 648a^5c^5g^2k^2m^2z^2 - 648a^5c^5h^2j^2l^2z^2 + 1296a^5c^5h^2j^2k^2z^2 + 1296a^5c^5g^2j^2l^2z^2 + 1296a^5c^5f^2j^2m^2z^2 - 648a^5c^5g^2j^2k^2z^2 + 648a^5c^5e^2k^2l^2z^2 + 648a^5c^5d^2k^2m^2z^2 - 648a^4c^6d^2k^2m^2z^2 - 648a^5c^5e^2j^2l^2z^2 + 648a^5c^5d^2k^2l^2z^2 + 648a^4c^6e^2j^2l^2z^2 + 324a^6b^3c^3l^3m^2z^2 + 27a^4b^5c^3l^3m^2z^2 + 648a^5c^5f^3h^2l^2z^2 - 648a^4c^6e^2h^2m^2z^2 + 1512a^5b^3c^4j^3m^2z^2 + 1080a^6b^3c^3j^3m^3z^2 - 162a^4b^5c^3j^3m^3z^2 - 648a^4c^6f^2g^2k^2z^2 + 648a^4c^6e^2g^2l^2z^2 - 648a^4c^6d^2g^2m^2z^2 - 27a^3b^6c^2j^3l^3z^2 + 648a^4c^6e^2h^2j^2z^2 + 648a^4c^6d^2h^2k^2z^2 + 324a^5b^3c^4j^3k^3z^2 \\
& z^2 - 1296a^4c^6eg^2j^2z^2 - 1296a^4c^6d^2h^2j^2z^2 - 108a^4b^3c^5g^3m^2z^2 - 648a^4c^6d^2f^2k^2z^2 - 648a^3c^7d^2g^2j^2z^2 + 648a^3c^7d^2f^2k^2z^2 + 648a^3c^7d^2e^2l^2z^2 + 270a^3b^6c^2f^3m^3z^2 + 648a^3c^7d^2e^2k^2z^2 - 540a^5b^3c^4f^3l^3z^2 + 324a^3b^3c^6e^3m^2z^2 - 108a^4b^3c^5h^3j^2z^2 + 27a^2b^7c^3f^3l^3z^2 + 27a^2b^5c^4e^3m^2z^2 + 648a^3c^7e^2f^2h^2z^2 + 216a^2b^4c^5d^3m^2z^2 + 648a^4b^3c^5f^3j^3z^2 + 216a^3b^3c^6f^3j^3z^2 + 648a^3c^7d^2f^2g^2z^2 - 27a^2b^4c^5e^3j^3z^2 + 324a^2b^3c^7d^3j^3z^2 - 189a^2b^3c^6d^3j^3z^2 - 108a^3b^3c^6f^2g^3z^2 - 108a^2b^3c^7e^3f^3z^2 + 27a^2b^3c^6e^3f^3z^2 + 162a^2b^2c^7d^3f^3z^2 - 1134a^5b^2c^3j^2m^2z^2 + 648a^4b^4c^2j^2m^2z^2 + 81a^5b^2c^3k^2l^2z^2 + 162a^4b^2c^4f^2m^2z^2 + 81a^4b^2c^4h^2k^2z^2 + 81a^4b^2c^4g^2l^2z^2 + 162a^3b^2c^5f^2j^2z^2 + 81a^3b^2c^5e^2k^2z^2 + 81a^3b^2c^5d^2l^2z^2 + 81a^3b^2c^5g^2h^2z^2 + 81a^2b^2c^6e^2g^2z^2 + 81a^2b^2c^6d^2h^2z^2 - 216a^6c^4k^3m^2z^2 + 216a^6c^4j^3l^3z^2 + 27a^3b^7j^3m^3z^2 + 216a^5c^5h^3m^2z^2 + 432a^6c^4f^3m^3z^2 + 432a^4c^6f^3m^3z^2 - 27b^6c^4d^3m^2z^2 - 27a^2b^8f^3m^3z^2 + 216a^5c^5f^3k^3z^2 + 216a^4c^6g^3j^3z^2 + 216a^3c^7d^3m^2z^2 + 216a^5b^4c^3m^4z^2 - 216a^3c^7e^3j^3z^2 + 27b^5c^5d^3j^3z^2 - 216a^4c^6f^3h^3z^2 - 27b^4c^6d^3f^3z^2 - 216a^2c^8d^3j^3z^2
\end{aligned}$$

$$\begin{aligned}
& ^3f^2z^2 - 648a^6c^4j^2m^2z^2 - 324a^6c^4k^2l^2z^2 - 648a^5c^5f^2m^2z^2 - 324a^5c^5h^2k^2z^2 - 324a^5c^5g^2l^2z^2 - 648a^4c^6f^2j^2z^2 - 324a^4c^6e^2k^2z^2 - 324a^4c^6d^2l^2z^2 - 405a^6b^2c^2m^4z^2 - 324a^4c^6g^2h^2z^2 - 324a^3c^7e^2g^2z^2 - 324a^3c^7d^2h^2z^2 + 243a^4b^2c^4j^4z^2 - 27a^3b^4c^3j^4z^2 - 324a^2c^8d^2e^2z^2 + 27a^2b^2c^6f^4z^2 - 108a^7c^3m^4z^2 - 27a^4b^6m^4z^2 - 540a^5c^5j^4z^2 - 108a^3c^7f^4z^2 - 216a^5b^3c^3f^2j^2k^2l^2m^2z - 54a^3b^5c^2f^2j^2k^2l^2m^2z + 27a^3b^5c^2g^2h^2k^2l^2m^2z - 27a^2b^6c^2e^2g^2k^2l^2m^2z - 27a^2b^6c^2d^2h^2k^2l^2m^2z + 432a^4b^3c^4d^2g^2j^2k^2m^2z - 432a^4b^3c^4d^2e^2k^2l^2m^2z + 216a^4b^3c^4e^2g^2j^2k^2l^2z + 216a^4b^3c^4e^2f^2j^2k^2m^2z + 216a^4b^3c^4d^2h^2j^2k^2l^2z + 216a^4b^3c^4d^2f^2j^2l^2m^2z + 216a^4b^3c^4d^2g^2h^2j^2k^2l^2z - 27a^2b^6c^2d^2e^2j^2k^2l^2z - 27a^2b^6c^2d^2e^2h^2k^2l^2z - 27a^2b^6c^2d^2e^2g^2l^2m^2z + 216a^3b^3c^5d^2e^2h^2j^2k^2z + 216a^3b^3c^5d^2e^2g^2j^2l^2z - 216a^3b^3c^5d^2e^2f^2j^2m^2z + 27a^2b^5c^3d^2e^2h^2j^2k^2z + 27a^2b^5c^3d^2e^2g^2j^2l^2z + 27a^2b^5c^3d^2e^2g^2h^2m^2z - 27a^2b^4c^4d^2e^2g^2h^2j^2z + 27a^2b^7c^2d^2e^2k^2l^2m^2z + 270a^4b^3c^2f^2j^2k^2l^2m^2z - 108a^4b^3c^2g^2h^2k^2l^2m^2z - 216a^4b^2c^3f^2h^2j^2k^2m^2z - 216a^4b^2c^3f^2g^2j^2l^2m^2z - 216a^4b^2c^3e^2g^2k^2l^2m^2z - 216a^4b^2c^3d^2h^2k^2l^2m^2z + 162a^3b^4c^2e^2g^2k^2l^2m^2z + 162a^3b^4c^2d^2h^2k^2l^2m^2z + 108a^4b^2c^3g^2h^2j^2k^2l^2z + 108a^4b^2c^3e^2h^2j^2l^2m^2z + 54a^3b^4c^2f^2h^2j^2k^2m^2z + 54a^3b^4c^2f^2g^2j^2l^2m^2z - 27a^3b^4c^2g^2h^2j^2k^2l^2z + 540a^3b^3c^3d^2e^2k^2l^2m^2z - 216a^2b^5c^2d^2e^2k^2l^2m^2z - 162a^3b^3c^3e^2g^2j^2k^2l^2z - 162a^3b^3c^3d^2h^2j^2k^2l^2z - 108a^3b^3c^3d^2g^2j^2k^2m^2z - 54a^3b^3c^3e^2f^2j^2k^2m^2z - 54a^3b^3c^3d^2f^2j^2l^2m^2z + 27a^2b^5c^2e^2g^2j^2k^2l^2z + 27a^2b^5c^2d^2h^2j^2k^2l^2z - 108a^3b^3c^3e^2g^2h^2k^2m^2z - 108a^3b^3c^3d^2g^2h^2l^2m^2z - 54a^3b^3c^3f^2g^2h^2j^2m^2z + 27a^2b^5c^2e^2g^2h^2k^2m^2z + 27a^2b^5c^2d^2g^2h^2l^2m^2z - 540a^3b^2c^4d^2e^2j^2k^2l^2z + 216a^2b^4c^3d^2e^2j^2k^2l^2z - 216a^3b^2c^4d^2e^2h^2k^2m^2z - 216a^3b^2c^4d^2e^2g^2l^2m^2z + 162a^2b^4c^3d^2e^2h^2k^2m^2z + 162a^2b^4c^3d^2e^2g^2l^2m^2z + 108a^3b^2c^4e^2g^2h^2j^2k^2z - 108a^3b^2c^4e^2f^2h^2j^2l^2z + 108a^3b^2c^4d^2g^2h^2j^2l^2z + 108a^3b^2c^4d^2f^2g^2k^2m^2z - 27a^2b^4c^3e^2g^2h^2j^2k^2z - 27a^2b^4c^3d^2g^2h^2j^2l^2z - 162a^2b^3c^4d^2e^2h^2j^2k^2z - 162a^2b^3c^4d^2e^2g^2j^2l^2z + 54a^2b^3c^4d^2e^2f^2j^2m^2z - 108a^2b^3c^4d^2e^2g^2h^2m^2z + 108a^2b^2c^5d^2e^2g^2h^2j^2z + 324a^6b^3c^2j^2k^2l^2m^2z - 81a^5b^3c^2j^2k^2l^2m^2z + 27a^4b^4c^2j^2k^2l^2m^2z - 27a^4b^4c^2h^2k^2l^2m^2z - 27a^4b^4c^2g^2k^2l^2m^2z + 216a^5b^3c^3h^2j^2k^2m^2z + 216a^5b^3c^3g^2j^2l^2m^2z + 54a^4b^4c^2f^2k^2l^2m^2z + 27a^4b^4c^2h^2k^2l^2m^2z - 108a^5b^3c^3h^2j^2k^2l^2z + 27a^3b^5c^2e^2k^2l^2m^2z + 216a^5b^3c^3d^2k^2l^2m^2z + 216a^4b^3c^4e^2j^2l^2m^2z - 108a^5b^3c^3g^2j^2k^2l^2z + 27a^3b^5c^2d^2k^2l^2m^2z - 324a^5b^3c^3e^2j^2k^2m^2z - 324a^5b^3c^3d^2j^2l^2m^2z - 216a^5b^3c^3f^2h^2l^2m^2z - 108a^4b^3c^4f^2j^2k^2l^2z - 27a^3b^5c^2e^2j^2k^2m^2z^2z - 27a^3b^5c^2d^2j^2l^2m^2z - 324a^5b^3c^3g^2h^2j^2m^2z + 216a^5b^3c^3f^2h^2k^2m^2z + 216a^5b^3c^3f^2g^2l^2m^2z + 216a^5b^3c^3e^2h^2l^2m^2z - 216a^4b^3c^4f^2h^2k^2m^2z - 216a^4b^3c^4f^2g^2l^2m^2z - 27a^3b^5c^2g^2h^2j^2m^2z + 216a^4b^3c^4e^2g^2l^2m^2z - 108a^4b^3c^4g^2h^2j^2l^2z - 216a^4b^3c^4f^2h^2j^2l^2z + 216a^4b^3c^4e^2h^2j^2m^2z + 216a^4b^3c^4d^2h^2k^2m^2z - 108a^4b^3c^4g^2h^2j^2k^2z - 432a^4b^3c^4e^2g^2j^2m^2z - 432a^4b^3c^4d^2h^2j^2m^2z + 216a^4b^3c^4f^2h^2j^2k^2z + 216a^4b^3c^4f^2g^2j^2l^2z + 27a^2b^6c^2e^2g^2j^2m^2z + 27a^2b^6c^2d^2h^2j^2m^2z - 432a^3b^3c^5d^2g^2j^2m^2z - 216a^4b^3c^4f^2g^2j^2k^2z + 216a^3b^3c^5d^2f^2k^2m^2z + 216a^3b^3c^5d^2e^2l^2m^2z - 108a^4b^3c^4e^2h^2j^2k^2z - 108a^4b^3c^4d^2g^2k^2l^2z - 108a^3b^3c^5d^2h^2j^2l^2z + 108a^3b^3c^5d^2g^2k^2l^2z - 54a^2b^5c^3d^2g^2j^2m^2z + 27a^2b^5c^3d^2g^2k^2l^2z + 27a^2b^5c^3d^2e^2l^2m^2z - 216a^4b^3c^4e^2f^2j^2l^2z + 216a^3b^3c^5d^2e^2k^2m^2z - 108a^4b^3c^4d^2g^2j^2l^2z - 108a^3b^3c^5e^2g^2j^2k^2z + 27a^2b^5c^3d^2e^2k^2m^2z + 324a^4b^3c^4d^2e^2j^2m^2z + 216a^3b^3c^5e^2f^2h^2m^2z - 108a^4b^3c^4e^2g^2h^2l^2z + 108a^3b^3c^5e^2g^2h^2l^2z + 108a^3b^3c^5e^2f^2j^2k^2z + 108a^3b^3c^5d^2f^2j^2l^2z + 27a^2b^6c^2d^2e^2j^2m^2z - 216a^3b^3c^5e^2f^2h^2l^2z + 108a^3b^3c^5f^2g^2h^2j^2z - 27a^2b^4c^4d^2e^2j^2l^2z + 216a^3b^3c^5d^2f^2g^2m^2z - 108a^3b^3c^5e^2g^2h^2j^2z + 54a^2b^4c^4
\end{aligned}$$

$$\begin{aligned}
& c^4 d^2 f g m z - 27 a^3 b^4 c^4 d^2 g h k z - 27 a^3 b^4 c^4 d^2 e h m z - 27 a^3 b^4 c^4 d^2 e^2 j k z - 108 a^3 b^3 c^5 d^2 g h^2 j z + 54 a^3 b^4 c^4 d^2 e^2 h^2 l z + 27 a^3 b^6 c^2 d^2 e h^2 l^2 z - 27 a^3 b^5 c^3 d^2 e h^2 l z - 27 a^3 b^4 c^4 d^2 e^2 g m z - 27 a^3 b^4 c^4 d^2 e f^2 m z + 216 a^2 b^3 c^6 d^2 f g^2 j z - 108 a^3 b^3 c^5 d^2 e g^2 k^2 z - 108 a^2 b^3 c^6 d^2 e h^2 j z + 108 a^2 b^3 c^6 d^2 e g^2 k z - 54 a^3 b^3 c^5 d^2 f g^2 j z - 27 a^3 b^5 c^3 d^2 e g^2 k^2 z + 27 a^3 b^4 c^4 d^2 e g^2 k z + 27 a^3 b^3 c^5 d^2 e h^2 j z - 27 a^3 b^3 c^5 d^2 e g^2 k z - 108 a^2 b^3 c^6 d^2 e^2 g^2 j z + 27 a^3 b^3 c^5 d^2 e^2 g^2 j z - 108 a^2 b^3 c^6 d^2 e f^2 j z + 27 a^3 b^3 c^5 d^2 e f^2 j z - 432 a^5 c^4 e h^2 j^2 l m z + 432 a^4 c^5 d^2 e j^2 k l m z + 432 a^4 c^5 e f^2 h^2 j^2 l m z - 432 a^4 c^5 d^2 f g^2 k m z - 27 a^3 b^7 c^2 d^2 e j^2 m^2 z - 54 a^5 b^2 c^2 j^2 k l m z + 108 a^5 b^2 c^2 h^2 k^2 l m z + 108 a^5 b^2 c^2 g^2 k l^2 m z - 54 a^5 b^2 c^2 h^2 j^2 l m z + 378 a^4 b^2 c^3 f^2 k l m z - 270 a^5 b^2 c^2 f^2 k l m^2 z - 189 a^3 b^4 c^2 f^2 k l m z - 108 a^5 b^2 c^2 h^2 j^2 k m^2 z - 108 a^5 b^2 c^2 g^2 j^2 l m^2 z - 54 a^4 b^3 c^2 h^2 j^2 k m^2 z - 54 a^4 b^3 c^2 g^2 j^2 l m^2 z - 162 a^4 b^3 c^2 e^2 k^2 l m^2 z + 54 a^4 b^2 c^3 g^2 j^2 k m^2 z + 27 a^4 b^3 c^2 h^2 j^2 k^2 l m z - 162 a^4 b^3 c^2 d^2 k l^2 m^2 z + 108 a^4 b^2 c^3 g^2 h^2 l m^2 z - 54 a^3 b^3 c^3 e^2 j^2 l m^2 z + 27 a^4 b^3 c^2 g^2 j^2 k l^2 z - 27 a^3 b^4 c^2 g^2 h^2 l m^2 z - 270 a^4 b^2 c^3 f^2 j^2 k l^2 z + 189 a^4 b^3 c^2 e^2 j^2 k m^2 z + 189 a^4 b^3 c^2 d^2 j^2 l m^2 z - 162 a^4 b^2 c^3 e^2 j^2 k m^2 z - 162 a^4 b^2 c^3 d^2 j^2 l m^2 z + 135 a^3 b^3 c^3 f^2 j^2 k l^2 z + 108 a^4 b^2 c^3 g^2 h^2 k m^2 z + 54 a^4 b^3 c^2 f^2 h^2 l^2 m^2 z - 54 a^4 b^2 c^3 f^2 h^2 l m^2 z + 54 a^3 b^4 c^2 f^2 j^2 k l^2 z - 27 a^3 b^4 c^2 g^2 h^2 k m^2 z + 27 a^3 b^4 c^2 e^2 j^2 k m^2 z + 27 a^3 b^4 c^2 d^2 j^2 l m^2 z - 27 a^2 b^5 c^2 f^2 j^2 k l^2 z - 270 a^3 b^2 c^4 d^2 j^2 k m^2 z + 189 a^4 b^3 c^2 g^2 h^2 j m^2 z - 162 a^4 b^2 c^3 g^2 h^2 j^2 m^2 z + 162 a^4 b^2 c^3 e^2 j^2 k^2 l^2 z + 162 a^3 b^3 c^3 f^2 h^2 k m^2 z + 162 a^3 b^3 c^3 f^2 g^2 l m^2 z - 54 a^4 b^3 c^2 f^2 h^2 k m^2 z - 54 a^4 b^3 c^2 f^2 g^2 l m^2 z - 54 a^4 b^3 c^2 e^2 h^2 l m^2 z + 54 a^4 b^2 c^3 d^2 j^2 k^2 m^2 z + 54 a^2 b^4 c^3 d^2 j^2 k m^2 z + 27 a^3 b^4 c^2 g^2 h^2 j^2 m^2 z - 27 a^3 b^4 c^2 e^2 j^2 k^2 l^2 z - 27 a^2 b^5 c^2 f^2 h^2 k m^2 z - 27 a^2 b^5 c^2 f^2 g^2 l m^2 z + 162 a^4 b^2 c^3 d^2 j^2 k l^2 z - 162 a^3 b^3 c^3 e^2 g^2 l m^2 z + 108 a^4 b^2 c^3 e^2 h^2 k^2 m^2 z + 108 a^3 b^2 c^4 d^2 h^2 l m^2 z - 54 a^4 b^2 c^3 f^2 g^2 k^2 m^2 z - 27 a^3 b^4 c^2 e^2 h^2 k^2 m^2 z - 27 a^3 b^4 c^2 d^2 j^2 k l^2 z + 27 a^3 b^3 c^3 g^2 h^2 j^2 l^2 z + 27 a^2 b^5 c^2 e^2 g^2 l m^2 z - 27 a^2 b^4 c^3 d^2 h^2 l m^2 z + 270 a^4 b^2 c^3 f^2 h^2 j^2 l^2 z - 270 a^3 b^2 c^4 e^2 h^2 j m^2 z - 162 a^4 b^2 c^3 e^2 h^2 k l^2 z - 162 a^3 b^3 c^3 d^2 h^2 k m^2 z + 162 a^3 b^2 c^4 e^2 h^2 k l^2 z + 108 a^4 b^2 c^3 d^2 g^2 l^2 m^2 z + 108 a^3 b^2 c^4 e^2 g^2 k m^2 z - 54 a^4 b^2 c^3 e^2 f^2 l^2 m^2 z - 54 a^3 b^4 c^2 f^2 h^2 j^2 l^2 z + 54 a^3 b^3 c^3 f^2 h^2 j^2 l^2 z - 54 a^3 b^3 c^3 e^2 h^2 j m^2 z + 54 a^3 b^2 c^4 e^2 f^2 l m^2 z + 54 a^2 b^4 c^3 e^2 h^2 j m^2 z + 27 a^3 b^4 c^2 e^2 h^2 k l^2 z - 27 a^3 b^4 c^2 d^2 g^2 l^2 m^2 z + 27 a^3 b^3 c^3 g^2 h^2 j^2 k z + 27 a^2 b^5 c^2 d^2 h^2 k m^2 z - 27 a^2 b^4 c^3 e^2 h^2 k l^2 z - 27 a^2 b^4 c^3 e^2 g^2 k m^2 z + 432 a^4 b^2 c^3 e^2 g^2 j m^2 z + 432 a^4 b^2 c^3 d^2 h^2 j m^2 z - 270 a^4 b^2 c^3 d^2 g^2 k m^2 z - 216 a^3 b^4 c^2 e^2 g^2 j m^2 z - 216 a^3 b^4 c^2 d^2 h^2 j m^2 z + 216 a^3 b^3 c^3 e^2 g^2 j^2 m^2 z + 216 a^3 b^3 c^3 d^2 h^2 j^2 m^2 z - 162 a^3 b^2 c^4 e^2 f^2 k m^2 z - 162 a^3 b^2 c^4 d^2 f^2 l m^2 z - 108 a^3 b^2 c^4 f^2 h^2 j^2 k z - 108 a^3 b^2 c^4 f^2 g^2 j^2 l z + 54 a^4 b^2 c^3 e^2 f^2 k m^2 z + 54 a^4 b^2 c^3 d^2 f^2 l m^2 z + 54 a^3 b^4 c^2 d^2 g^2 k m^2 z - 54 a^3 b^3 c^3 f^2 h^2 j^2 k z - 54 a^3 b^3 c^3 f^2 g^2 j^2 l z - 27 a^2 b^5 c^2 e^2 g^2 j^2 m^2 z - 27 a^2 b^5 c^2 d^2 h^2 j^2 m^2 z + 27 a^2 b^4 c^3 f^2 h^2 j^2 k z + 27 a^2 b^4 c^3 f^2 g^2 j^2 l z + 27 a^2 b^4 c^3 e^2 f^2 k m^2 z + 27 a^2 b^4 c^3 d^2 f^2 l m^2 z + 324 a^2 b^3 c^4 d^2 g^2 j m^2 z - 270 a^3 b^2 c^4 d^2 g^2 j m^2 z - 162 a^3 b^2 c^4 f^2 g^2 h m^2 z + 162 a^3 b^2 c^4 e^2 g^2 j^2 l z - 162 a^2 b^3 c^4 d^2 e^2 l m^2 z - 135 a^2 b^3 c^4 d^2 g^2 k l^2 z + 108 a^3 b^2 c^4 d^2 g^2 k l^2 z + 54 a^4 b^2 c^3 f^2 g^2 h m^2 z + 54 a^3 b^3 c^3 f^2 g^2 j^2 k^2 z - 54 a^3 b^2 c^4 f^2 g^2 j^2 k z + 54 a^2 b^4 c^3 d^2 g^2 j m^2 z - 54 a^2 b^3 c^4 d^2 f^2 k m^2 z + 27 a^3 b^3 c^3 e^2 h^2 j^2 k^2 z + 27 a^3 b^3 c^3 d^2 g^2 k^2 l^2 z + 27 a^2 b^4 c^3 f^2 g^2 h m^2 z - 27 a^2 b^4 c^3 e^2 g^2 j^2 l z - 27 a^2 b^4 c^3 d^2 g^2 k l^2 z + 27 a^2 b^3 c^4 d^2 h^2 j^2 l z + 162 a^3 b^2 c^4 d^2 h^2 j^2 k z - 162 a^2 b^3 c^4 d^2 e^2 k m^2 z + 108 a^3 b^2 c^4 e^2 g^2 h m^2 z + 54 a^3 b^3 c^3 e^2 f^2 j^2 l^2 z + 27 a^3 b^3 c^3 d^2 g^2 j^2 l^2 z - 27 a^2 b^4 c^3 e^2 g^2 h m^2 z - 27 a^2 b^4 c^3 d^2 h^2 j^2 k z + 27 a^2 b^3 c^4 e^2 g^2 j^2 k z
\end{aligned}$$

$$\begin{aligned}
& - 621a^3b^3c^3d^*e^*j^*m^2z + 594a^3b^2c^4d^*e^*j^2m^*z + 243a^2b^5c^2d^*e^*j^*m^2z - 243a^2b^4c^3d^*e^*j^2m^*z + 135a^3b^3c^3e^*g^*h^1^2z \\
& - 108a^3b^2c^4e^*g^*h^2^1z + 108a^3b^2c^4d^*g^*h^2^*m^*z + 54a^3b^2c^4e^*f^*j^2k^*z + 54a^3b^2c^4e^*f^*h^2^*m^*z + 54a^3b^2c^4d^*g^*j^2k^*z + \\
& 54a^3b^2c^4d^*f^*j^2l^*z - 54a^2b^3c^4e^2f^*h^*m^*z - 27a^2b^5c^2e^*g^*h^1^2z + 27a^2b^4c^3e^*g^*h^2^1z - 27a^2b^4c^3d^*g^*h^2^*m^*z - 27a^2b^3c^4e^2g^*h^1z \\
& - 27a^2b^3c^4e^2f^*j^*k^*z - 27a^2b^3c^4d^*f^2j^*l^*z + 162a^2b^2c^5d^2e^*j^*l^*z + 54a^3b^2c^4f^*g^*h^*j^2z - 54a^3b^2c^4d^*f^*j^*k^2z \\
& + 54a^2b^3c^4e^2f^2h^1z + 54a^2b^2c^5d^2f^*j^*k^*z - 27a^2b^3c^4f^2g^*h^*j^*z - 270a^2b^2c^5d^2f^*g^*m^*z - 162a^3b^2c^4d^*g^*h^*k^2z \\
& + 162a^2b^2c^5d^2g^*h^*k^*z + 162a^2b^2c^5d^2e^2j^*k^*z + 108a^2b^2c^5d^2e^*h^*m^*z - 54a^2b^3c^4d^*f^*g^2^*m^*z + 27a^2b^4c^3d^*g^*h^*k^2z \\
& + 27a^2b^3c^4e^*g^2^*h^*j^*z + 270a^3b^2c^4d^*e^*h^1^2z - 270a^2b^2c^5d^2e^2h^1z - 162a^2b^4c^3d^*e^*h^1^2z + 108a^2b^3c^4d^*e^*h^2^1z \\
& + 108a^2b^2c^5d^2e^2g^*m^*z + 54a^2b^2c^5e^2f^*h^*j^*z + 27a^2b^3c^4d^*g^*h^2^*j^*z + 162a^2b^2c^5d^2e^*f^2^*m^*z - 54a^3b^2c^4d^*e^*f^*m^2z \\
& - 54a^2b^2c^5d^2f^2g^*k^*z + 135a^2b^3c^4d^*e^*g^*k^2z - 108a^2b^2c^5d^2e^*g^2^*k^*z + 54a^2b^2c^5d^2f^*g^2^*j^*z - 54a^2b^2c^5d^2e^*f^*j^2z \\
& - 9a^*b^7c^*d^*e^*l^3z - 36a^*b^*c^7d^3e^*g^*z - 108a^6b^*c^2k^2l^2m^*z + 27a^5b^3c^*k^2l^2m^*z - 18a^5b^2c^2j^*k^3m^*z - 27a^4b^3c^2j^3k^*l^*z \\
& - 108a^5b^*c^3h^2k^2m^*z - 108a^5b^*c^3g^2l^2m^*z + 108a^5b^*c^3h^2k^*l^2z + 108a^5b^*c^3g^2k^*m^2z + 90a^5b^2c^2f^*l^3m^*z - 18a^5b^2c^2h^*k^*l^3z \\
& + 18a^4b^2c^3h^3k^*l^*z + 18a^4b^2c^3h^3j^*m^*z - 108a^5b^*c^3h^*j^2l^2z + 18a^4b^3c^2f^*k^3m^*z - 18a^3b^3c^3g^3j^*m^*z - 9a^4b^3c^2g^*k^3l^*z \\
& + 9a^3b^3c^3g^3k^*l^*z + 252a^4b^2c^3f^*j^3m^*z + 216a^5b^*c^3f^*j^2m^2z + 180a^3b^2c^4f^3j^*m^*z - 108a^4b^*c^4e^2k^2m^*z - 108a^4b^*c^4d^2l^2m^*z \\
& + 90a^5b^2c^2e^*k^*m^3z + 90a^5b^2c^2d^*l^*m^3z - 90a^3b^2c^4f^3k^*l^*z + 54a^3b^5c^*f^*j^2m^2z - 54a^3b^4c^2f^*j^3m^*z + 36a^5b^2c^2f^*j^*m^3z \\
& + 36a^4b^2c^3h^*j^3k^*z + 36a^4b^2c^3g^*j^3l^*z - 36a^2b^4c^3f^3j^*m^*z - 27a^2b^6c^*f^2j^*m^2z + 18a^2b^4c^3f^3k^*l^*z - 216a^4b^*c^4d^2k^*m^2z \\
& + 108a^5b^*c^3d^*k^2m^2z - 108a^4b^3c^2f^*j^*l^3z - 108a^4b^*c^4g^2h^2m^*z + 108a^2b^3c^4e^3j^*m^*z + 90a^5b^2c^2g^*h^*m^3z + 54a^4b^3c^2e^*k^*l^3z \\
& - 54a^2b^3c^4e^3k^*l^*z + 234a^2b^2c^5d^3j^*m^*z - 144a^2b^2c^5d^3k^*l^*z + 90a^4b^2c^3f^*j^*k^3z - 72a^4b^2c^3d^*k^3l^*z + 27a^4b^3c^2g^*h^1^3z \\
& - 27a^3b^3c^3g^*h^3l^*z - 18a^3b^4c^2f^*j^*k^3z + 9a^3b^4c^2d^*k^3l^*z + 216a^4b^*c^4f^2h^1^2z - 216a^4b^*c^4e^2h^*m^2z + 108a^4b^*c^4g^2h^*k^2z \\
& - 18a^4b^2c^3g^*h^*k^3z + 18a^3b^2c^4g^3h^*k^*z + 18a^3b^2c^4f^*g^3m^*z + 9a^3b^4c^2g^*h^*k^3z - 9a^3b^3c^3e^*j^3k^*z - 9a^3b^3c^3d^*j^3l^*z \\
& - 144a^4b^3c^2e^*g^*m^3z - 144a^4b^3c^2d^*h^*m^3z - 108a^3b^*c^5e^2g^2m^*z + 108a^3b^*c^5d^2j^2k^*z - 108a^3b^*c^5d^2h^2m^*z - 18a^2b^3c^4f^3h^*k^*z \\
& - 18a^2b^3c^4f^3g^*l^*z - 9a^3b^3c^3g^*h^*j^3z - 216a^4b^*c^4d^*g^2m^2z + 144a^4b^2c^3e^*g^*l^3z - 126a^3b^2c^4d^*h^3l^*z - 108a^4b^*c^4d^*h^2l^2z \\
& - 108a^3b^*c^5f^2g^2k^*z - 108a^3b^*c^5e^2h^2k^*z - 90a^2b^2c^5e^3f^*m^*z + 72a^2b^2c^5e^3g^*l^*z - 63a^3b^4c^2e^*g^*l^3z - 36a^3b^4c^2d^*h^1^3z \\
& + 27a^2b^4c^3d^*h^3l^*z + 27a^*b^6c^2d^2g^*m^2z - 18a^4b^2c^3d^*h^1^3z - 18a^3b^2c^4f^*h^3j^*z - 18a^3b^2c^4e^*h^3k^*z + 18a^2b^2c^5e^3h^*k^*z \\
& + 108a^3b^*c^5e^2h^*j^2z + 54a^3b^3c^3d^*h^*k^3z + 27a^3b^3c^3e^*g^*k^3z - 27a^2b^3c^4e^*g^3k^*z + 27a^2b^3c^4d^*g^3l^*z - 27a^*b^4c^4d^2g^2l^*z \\
& - 9a^2b^5c^2e^*g^*k^3z - 9a^2b^5c^2d^*h^*k^3z + 207a^3b^4c^2d^*e^*m^3z - 108a^2b^*c^6d^2e^2m^*z - 90a^4b^2c^3d^*e^*m^3z - 72a^3b^2c^4e^*g^*j^3z - 72a^3b^2c^4d^*h^*j^3z \\
& + 27a^*b^3c^5d^2e^2m^*z + 18a^2b^2c^5e^*f^3k^*z + 18a^2b^2c^5d^*f^3l^*z + 9a^2b^4c^3e^*g^*j^3z + 9a^2b^4c^3d^*h^*j^3z - 216a^3b^*c^5d^2e^2l^2z \\
& - 198a^3b^3c^3d^*e^*l^3z + 108a^3b^*c^5d^2g^2j^2z - 108a^3b^*c^5d^*f^2k^2z + 72a^2b^5c^2d^*e^*l^3z - 27a^*b^5c^3d^*e^2l^2z + 27a^*b^4c^4d^2g^*j^2z \\
& + 18a^2b^2c^5f^3g^*h^*z + 144a^3b^2c^4d^*e^*k^3z - 63a^2b^4c^3d^*e^*k^3z + 27a^*b^4c^4d^2e^*k^2z
\end{aligned}$$

$$\begin{aligned}
& z - 9a^2b^3c^4eg^3h^3z - 108a^2b^3c^6d^2g^2h^3z + 81a^2b^3c^4d^* \\
& e^j^3z + 27a^2b^3c^5d^2g^2h^3z - 27a^2b^2c^6d^2e^2j^3z - 18a^2b^2c^5d^* \\
& g^3h^3z + 108a^2b^3c^6d^2e^2h^2z - 27a^2b^3c^5d^2e^2h^2z + 27a^* \\
& b^2c^6d^2f^2g^3z - 18a^2b^2c^5d^2e^2h^3z - 216a^6c^3j^2k^1m^* \\
& z + 216a^6c^3h^j^1^2m^*z + 216a^6c^3f^*k^1m^2z - 216a^5c^4f^2k^1m^* \\
& z - 216a^5c^4g^2j^*k^m^*z + 216a^5c^4f^*j^2k^1m^*z + 216a^5c^4f^*h^2l^* \\
& m^*z + 216a^5c^4e^j^2k^m^*z + 216a^5c^4d^*j^2l^*m^*z + 216a^5c^4g^*h^* \\
& j^2m^*z - 216a^5c^4e^*j^k^2l^*z - 216a^5c^4d^*j^k^2m^*z + 216a^4c^5d^* \\
& ^2j^*k^m^*z - 18a^6b^2c^*k^1m^3z + 216a^5c^4f^*g^*k^2m^*z - 216a^5c^4 \\
& *d^*j^*k^1^2z - 72a^6b^2c^*k^1m^3z + 18a^5b^3c^*j^1^3m^*z - 216a^5c^4 \\
& 4f^*h^*j^1^2z + 216a^5c^4e^*h^*k^1^2z + 216a^5c^4e^*f^1^2m^*z - 216a^4 \\
& c^5e^2h^*k^1z + 216a^4c^5e^2h^*j^m^*z - 216a^4c^5e^2f^1m^*z - 216a^* \\
& a^5c^4e^*f^*k^m^2z + 216a^5c^4d^*g^*k^m^2z - 216a^5c^4d^*f^1m^2z + 2 \\
& 16a^4c^5e^*f^2k^m^*z + 216a^4c^5d^*f^2l^*m^*z + 108a^5b^3c^*j^3k^1z \\
& - 216a^5c^4f^*g^*h^m^2z + 216a^4c^5f^2g^*h^m^*z + 216a^4c^5f^*g^2j^*k^* \\
& z - 216a^4c^5e^*g^2j^1z + 216a^4c^5d^*g^2j^*m^*z - 72a^6b^2c^2h^*k^m^* \\
& ^3z - 72a^6b^2c^2g^1m^3z + 54a^5b^3c^*h^*k^m^3z + 54a^5b^3c^*g^1m^* \\
& ^3z - 216a^4c^5d^*h^2j^*k^z - 18a^4b^4c^*f^1^3m^*z + 9a^4b^4c^*h^*k^1^* \\
& ^3z - 216a^4c^5e^*f^j^2k^z - 216a^4c^5e^*f^h^2m^*z - 216a^4c^5d^*g^* \\
& j^2k^z - 216a^4c^5d^*f^j^2l^*z - 216a^4c^5d^*e^j^2m^*z - 72a^5b^3c^* \\
& f^*k^3m^*z + 72a^4b^2c^4g^3j^*m^*z + 36a^5b^3c^*g^*k^3l^*z - 36a^4b^2c^4* \\
& g^3k^1z - 216a^4c^5f^*g^*h^j^2z + 216a^4c^5d^*f^j^*k^2z - 216a^3c^6 \\
& *d^2f^j^*k^z - 216a^3c^6d^2e^*j^1z + 72a^4b^4c^*f^j^*m^3z - 63a^4b^4 \\
& c^*e^*k^m^3z - 63a^4b^4c^*d^1m^3z + 216a^4c^5d^*g^*h^k^2z - 216a^3c^* \\
& c^6d^2g^*h^k^z + 216a^3c^6d^2f^*g^*m^*z - 216a^3c^6d^2e^2j^*k^z + 144a^* \\
& ^5b^3c^3f^*j^1^3z - 144a^3b^3c^5e^3j^*m^*z - 72a^5b^3c^3e^*k^1^3z + 72a^* \\
& a^3b^3c^5e^3k^1z - 63a^4b^4c^*g^*h^m^3z + 18a^3b^5c^*f^j^1^3z - 18a^* \\
& a^b^5c^3e^3j^*m^*z - 9a^3b^5c^*e^*k^1^3z + 9a^3b^5c^3e^3k^1z - 216a^* \\
& ^4c^5d^*e^*h^1^2z - 216a^3c^6e^2f^*h^j^z + 216a^3c^6d^2e^2h^1z - 12 \\
& 6a^4b^4c^4d^3j^*m^*z + 108a^4b^3c^4g^*h^3l^*z + 63a^4b^4c^4d^3k^1z + \\
& 36a^5b^3c^3g^*h^1^3z - 9a^3b^5c^*g^*h^1^3z + 216a^4c^5d^*e^*f^m^2z + \\
& 216a^3c^6d^*f^2g^*k^z - 216a^3c^6d^*e^*f^2m^*z + 36a^4b^3c^4e^*j^3k^z \\
& + 36a^4b^3c^4d^*j^3l^*z - 216a^3c^6d^*f^*g^2j^*z + 72a^3b^5c^*e^*g^m^3z \\
& + 72a^3b^5c^*d^*h^m^3z + 72a^3b^3c^5f^3h^*k^z + 72a^3b^3c^5f^3g^1z \\
& + 36a^4b^3c^4g^*h^j^3z + 18a^4b^4c^4e^3f^*m^*z + 9a^2b^6c^*e^*g^1^3z \\
& + 9a^2b^6c^*d^*h^1^3z - 9a^4b^4c^4e^3h^*k^z - 9a^4b^4c^4e^3g^1z + 2 \\
& 16a^3c^6d^*e^*f^j^2z - 144a^2b^3c^6d^3f^*m^*z + 108a^3b^3c^5e^*g^3k^z \\
& - 108a^3b^3c^5d^*g^3l^*z + 108a^2b^3c^5d^3f^*m^*z - 72a^4b^3c^4d^*h^*k^3* \\
& z + 72a^2b^3c^6d^3h^*k^z - 54a^2b^3c^5d^3h^*k^z + 36a^4b^3c^4e^*g^*k^3* \\
& z - 36a^2b^3c^6d^3g^1z - 27a^2b^3c^5d^3g^1z - 81a^2b^6c^*d^*e^*m^3* \\
& z + 216a^4b^3c^4d^*e^1^3z + 72a^2b^3c^6e^3f^*j^z + 72a^2b^3c^6d^*e^3l^* \\
& z - 18a^2b^3c^5e^3f^*j^z - 18a^2b^3c^5d^*e^3l^*z - 90a^2b^2c^6d^3f^*j^* \\
& z + 72a^2b^2c^6d^3e^*k^z + 36a^3b^3c^5e^*g^*h^3z - 36a^2b^3c^6e^3g^*h^* \\
& z + 9a^2b^6c^2d^*e^*k^3z + 9a^2b^3c^5e^3g^*h^z - 180a^3b^3c^5d^*e^*j^3* \\
& z + 18a^2b^2c^6d^3g^*h^z - 9a^2b^5c^3d^*e^*j^3z + 18a^2b^2c^6d^*e^3h^z \\
& + 9a^2b^4c^4d^*e^*h^3z + 36a^2b^3c^6d^*e^*g^3z - 9a^2b^3c^5d^*e^*g^3z - \\
& 18a^2b^2c^6d^*e^*f^3z + 27a^5b^2c^2h^2l^*m^2z - 27a^5b^2c^2j^*k^2 \\
& ^1^2z + 27a^4b^3c^2h^2k^2m^*z + 27a^4b^3c^2g^2l^2m^*z + 27a^5b^2c^2 \\
& ^2g^*k^2m^2z - 27a^4b^3c^2h^2k^1^2z - 27a^4b^3c^2g^2k^m^2z \\
& z - 135a^4b^2c^3e^2l^*m^2z + 27a^5b^2c^2e^1^2m^2z + 27a^4b^3c^2 \\
& ^2h^*j^2l^2z - 27a^4b^2c^3h^2j^2l^*z + 27a^3b^4c^2e^2l^*m^2z - \\
& 270a^4b^3c^2f^*j^2m^2z - 270a^4b^2c^3f^2j^*m^2z + 162a^3b^4c^2 \\
& ^2f^2j^*m^2z - 108a^3b^3c^3f^2j^2m^*z - 27a^4b^2c^3h^2j^*k^2z - 2 \\
& 7a^4b^2c^3g^2j^1^2z + 27a^3b^3c^3e^2k^2m^*z + 27a^3b^3c^3d^2 \\
& ^1^2m^*z + 27a^2b^5c^2f^2j^2m^*z + 162a^3b^3c^3d^2k^m^2z - 27a^4 \\
& b^3c^2d^*k^2m^2z - 27a^4b^2c^3g^*j^2k^2z + 27a^3b^3c^3g^2h^2 \\
& ^*m^*z - 27a^2b^5c^2d^2k^m^2z + 162a^3b^2c^4d^2k^2l^*z - 108a^4b^2 \\
& ^2c^3g^*h^2l^2z - 27a^4b^2c^3e^*j^2l^2z + 27a^3b^4c^2g^*h^2l^2* \\
& z + 27a^3b^2c^4e^2j^2l^*z - 27a^2b^4c^3d^2k^2l^*z - 162a^3b^3c^
\end{aligned}$$

$$\begin{aligned}
& ^3f^2h^1l^2z + 162a^3b^3c^3e^2hm^2z - 135a^4b^2c^3e^2hm^2z \\
& + 135a^3b^2c^4f^2h^2l^1z + 27a^3b^4c^2e^2hm^2z - 27a^3b^3c^3 \\
& *g^2hk^2z - 27a^3b^2c^4e^2jk^2z - 27a^3b^2c^4d^2j^1l^2z + 27 \\
& *a^2b^5c^2f^2h^1l^2z - 27a^2b^5c^2e^2hm^2z - 27a^2b^4c^3f^2* \\
& h^2l^1z - 27a^3b^2c^4g^2h^2j^1z + 27a^2b^3c^4e^2g^2m^1z - 27a^2* \\
& b^3c^4d^2j^2k^1z + 27a^2b^3c^4d^2h^2m^1z + 351a^3b^2c^4d^2g^2m^ \\
& 2z - 189a^2b^4c^3d^2g^2m^2z + 162a^3b^3c^3d^2g^2m^2z - 162a^3b \\
& ^2c^4e^2g^1l^2z + 135a^3b^3c^3d^2h^2l^1z + 135a^3b^2c^4f^2g^2k^ \\
& 2z - 27a^2b^5c^2d^2h^2l^1z - 27a^2b^5c^2d^2g^2m^2z - 27a^2b^4* \\
& c^3f^2g^2k^2z + 27a^2b^4c^3e^2g^1l^2z + 27a^2b^3c^4f^2g^2k^1z + \\
& 27a^2b^3c^4e^2h^2k^1z + 135a^3b^2c^4e^2f^2l^1z - 108a^3b^2c^4 \\
& *e^2g^2k^2z + 108a^2b^2c^5d^2g^2l^1z + 27a^3b^2c^4e^2h^2j^2z + 2 \\
& 7a^2b^4c^3e^2g^2k^2z - 27a^2b^4c^3e^2f^2l^1z - 27a^2b^3c^4e^2 \\
& *h^2j^2z - 27a^2b^2c^5e^2f^2l^1z - 27a^2b^2c^5e^2g^2j^1z - 27a^2 \\
& *b^2c^5d^2h^2j^1z + 162a^2b^3c^4d^2e^2l^1z - 135a^2b^2c^5d^2g^2 \\
& j^2z - 27a^2b^3c^4d^2g^2j^2z + 27a^2b^3c^4d^2f^2k^2z - 162a^2b \\
& ^2c^5d^2e^2k^2z - 27a^2b^2c^5e^2f^2h^2z - 72a^7c^2k^1m^3z + 9* \\
& a^5b^4k^1m^3z + 72a^6c^3jk^3m^1z - 72a^6c^3hk^1l^3z - 72a^6c^ \\
& 3f^1l^3m^1z - 72a^5c^4h^3k^1l^1z - 72a^5c^4h^3j^1m^1z - 9a^4b^5hk^1m \\
& ^3z - 9a^4b^5g^1m^3z - 144a^6c^3f^1j^1m^3z - 144a^5c^4h^3j^3k^1z \\
& - 144a^5c^4g^1j^3l^1z - 144a^5c^4f^1j^3m^1z - 144a^4c^5f^3j^1m^1z + 7 \\
& 2a^6c^3e^1k^1m^3z + 72a^6c^3d^1l^1m^3z + 72a^4c^5f^3k^1l^1z + 72a^6* \\
& c^3g^1h^1m^3z + 18b^6c^3d^3j^1m^1z - 18a^3b^6f^1j^1m^3z - 9b^6c^3d^3 \\
& *k^1l^1z + 9a^3b^6e^1k^1m^3z + 9a^3b^6d^1l^1m^3z + 144a^5c^4d^2k^3l^1z \\
& + 144a^3c^6d^3k^1l^1z - 72a^5c^4f^1j^1k^3z - 72a^3c^6d^3j^1m^1z + 9a \\
& ^3b^6g^1h^1m^3z - 72a^5c^4g^1h^1k^3z - 72a^4c^5g^3h^1k^1z - 72a^4c^5 \\
& *f^1g^3m^1z - 108a^5b^3c^3j^4m^1z + 63a^6b^2c^3j^1m^4z + 36a^6b^2c^2k^1 \\
& l^4z - 9a^5b^3c^3k^1l^4z - 144a^5c^4e^1g^1l^3z - 144a^3c^6e^3g^1l^1z \\
& + 72a^5c^4d^2h^1l^3z + 72a^4c^5f^1h^3j^1z + 72a^4c^5e^1h^3k^1z + 72* \\
& a^4c^5d^2h^3l^1z + 72a^3c^6e^3h^1k^1z + 72a^3c^6e^3f^1m^1z - 18b^5c^ \\
& 4d^3f^1m^1z + 9b^5c^4d^3h^1k^1z + 9b^5c^4d^3g^1l^1z - 9a^2b^7e^1g^1m^3 \\
& z - 9a^2b^7d^1h^1m^3z + 144a^4c^5e^1g^1j^3z + 144a^4c^5d^2h^1j^3z - \\
& 72a^5c^4d^2e^1m^3z - 72a^3c^6e^1f^3k^1z - 72a^3c^6d^2f^3l^1z + 144a^ \\
& 6b^2c^2f^1m^4z - 108a^5b^3c^3f^1m^4z - 72a^3c^6f^3g^1h^1z + 36a^5b^2c^ \\
& 3h^1k^4z - 36a^3b^2c^5f^4m^1z + 18b^4c^5d^3f^1j^1z - 9b^4c^5d^3e^1 \\
& k^1z + 9a^4b^4c^3g^1l^4z - 144a^4c^5d^2e^1k^3z - 144a^2c^7d^3e^1k^1z + \\
& 72a^2c^7d^3f^1j^1z - 9b^4c^5d^3g^1h^1z + 72a^3c^6d^2g^3h^1z + 72a^2 \\
& *c^7d^3g^1h^1z - 72a^5b^2c^3d^1l^4z - 72a^4b^2c^4f^1j^4z + 45a^2b^2c^6 \\
& *d^4l^1z - 36a^2b^2c^6e^4k^1z - 9a^3b^5c^3d^1l^4z + 9a^2b^3c^5e^4k^1z \\
& - 72a^3c^6d^2e^1h^3z - 72a^2c^7d^2e^3h^1z + 9b^3c^6d^3e^1g^1z + 72a \\
& ^2c^7d^2e^1f^3z + 36a^3b^2c^5d^2h^4z - 9a^2b^2c^6e^4g^1z + 36a^2b^2c^7* \\
& d^3f^2z + 90a^5b^2c^2j^3m^2z + 45a^5b^2c^2j^2l^3z + 9a^4b^3 \\
& *c^2j^2k^3z - 9a^4b^3c^2h^3m^2z - 45a^4b^2c^3g^3m^2z + 9a^3 \\
& *b^4c^2g^3m^2z + 198a^4b^3c^2f^2m^3z - 108a^3b^3c^3f^3m^2z \\
& + 18a^2b^5c^2f^3m^2z - 117a^4b^2c^3f^2l^3z + 117a^3b^2c^4e^ \\
& 3m^2z + 63a^3b^4c^2f^2l^3z - 63a^2b^4c^3e^3m^2z - 171a^2b^3 \\
& *c^4d^3m^2z - 54a^3b^3c^3f^2k^3z + 9a^3b^2c^4g^3j^2z + 9a^2 \\
& *b^5c^2f^2k^3z + 18a^3b^2c^4f^2j^3z + 18a^2b^3c^4f^3j^2z - \\
& 9a^2b^4c^3f^2j^3z - 45a^2b^2c^5e^3j^2z + 9a^2b^3c^4f^2h^3z \\
& z - 9a^2b^2c^5f^2g^3z + 9a^2b^8d^2e^1m^3z - 36a^2b^2c^7d^4h^1z - 108* \\
& a^6c^3h^2l^1m^2z + 108a^6c^3j^1k^2l^1z - 108a^6c^3g^1k^2m^2z - 1 \\
& 08a^6c^3e^1l^2m^2z + 108a^5c^4h^2j^2l^1z + 108a^5c^4e^2l^1m^2z \\
& + 216a^5c^4f^2j^1m^2z + 108a^5c^4h^2j^1k^2z + 108a^5c^4g^2j^1l^2 \\
& z + 108a^5c^4g^1j^2k^2z - 216a^4c^5d^2k^2l^1z + 108a^5c^4e^1j^2* \\
& l^2z - 108a^4c^5e^2j^2l^1z - 9a^6b^2c^1l^3m^2z + 108a^5c^4e^1h^2 \\
& *m^2z - 108a^4c^5f^2h^2l^1z + 108a^4c^5e^2j^1k^2z + 108a^4c^5d^ \\
& 2j^1l^2z - 144a^6b^2c^2j^2m^3z + 108a^4c^5g^2h^2j^1z - 27a^4b^4* \\
& c^1j^3m^2z + 27a^4b^3c^2j^4m^1z + 9a^5b^2c^2k^4l^1z + 216a^4c^5* \\
& e^2g^1l^2z - 108a^4c^5f^2g^1k^2z - 108a^4c^5d^2g^1m^2z - 9a^4b^4
\end{aligned}$$

$$\begin{aligned}
& *c*j^2*l^3*z - 108*a^4*c^5*e*h^2*j^2*z - 108*a^4*c^5*e*f^2*l^2*z + 108*a^3*c^6*e^2*f^2*l*z - 36*a^5*b*c^3*j^2*k^3*z + 36*a^5*b*c^3*h^3*m^2*z + 108*a^3*c^6*e^2*g^2*j*z + 108*a^3*c^6*d^2*h^2*j*z - 216*a^5*b*c^3*f^2*m^3*z + 144*a^4*b*c^4*f^3*m^2*z + 108*a^3*c^6*d^2*g*j^2*z - 72*a^3*b^5*c*f^2*m^3*z - 45*a^5*b^2*c^2*g*l^4*z - 9*a^4*b^3*c^2*h*k^4*z - 9*a^3*b^2*c^4*g^4*l*z + 9*a^2*b^3*c^4*f^4*m*z + 216*a^3*c^6*d^2*e*k^2*z - 9*a^2*b^6*c*f^2*l^3*z + 9*a*b^6*c^2*e^3*m^2*z + 108*a^3*c^6*e*f^2*h^2*z + 108*a^3*b*c^5*d^3*m^2*z + 108*a^2*c^7*d^2*e^2*j*z + 72*a^4*b*c^4*f^2*k^3*z + 72*a*b^5*c^3*d^3*m^2*z - 72*a^3*b*c^5*f^3*j^2*z + 54*a^4*b^3*c^2*d*l^4*z - 45*a^4*b^2*c^3*e*k^4*z + 18*a^3*b^3*c^3*f*j^4*z + 9*a^3*b^4*c^2*e*k^4*z - 9*a^2*b^2*c^5*f^4*j*z - 108*a^2*c^7*d^2*f^2*g*z + 9*a^3*b^2*c^4*g*h^4*z + 9*a*b^4*c^4*e^3*j^2*z - 72*a^2*b*c^6*d^3*j^2*z + 54*a*b^3*c^5*d^3*j^2*z - 36*a^3*b*c^5*f^2*h^3*z - 9*a^2*b^3*c^4*d*h^4*z + 9*a^2*b^2*c^5*e*g^4*z + 9*a*b^2*c^6*e^3*f^2*z + 36*a^7*c^2*l^3*m^2*z + 72*a^6*c^3*j^3*m^2*z - 36*a^6*c^3*j^2*l^3*z + 9*a^4*b^5*j^2*m^3*z + 36*a^5*c^4*g^3*m^2*z + 36*a^5*c^4*f^2*l^3*z - 36*a^4*c^5*e^3*m^2*z - 9*b^7*c^2*d^3*m^2*z + 9*a^2*b^7*f^2*m^3*z - 36*a^4*c^5*g^3*j^2*z + 72*a^4*c^5*f^2*j^3*z + 36*a^3*c^6*e^3*j^2*z - 9*b^5*c^4*d^3*j^2*z + 36*a^3*c^6*f^2*g^3*z - 9*a^4*b^2*c^3*j^5*z - 36*a^2*c^7*e^3*f^2*z - 9*b^3*c^6*d^3*f^2*z + 36*a^7*c^2*j*m^4*z - 36*a^6*c^3*k^4*l*z - 18*a^5*b^4*j*m^4*z + 36*a^6*c^3*g*l^4*z + 36*a^4*c^5*g^4*l*z + 18*a^4*b^5*f*m^4*z - 9*b^4*c^5*d^4*l*z + 36*a^5*c^4*e*k^4*z + 36*a^3*c^6*f^4*j*z - 36*a^2*c^7*d^4*l*z - 36*a^4*c^5*g*h^4*z + 9*b^3*c^6*d^4*h*z - 36*a^3*c^6*e*g^4*z + 36*a^2*c^7*e^4*g*z - 9*b^2*c^7*d^4*e*z - 36*a^7*b*c*m^5*z + 36*a*c^8*d^4*e*z + 9*a^6*b^3*m^5*z + 36*a^5*c^4*j^5*z + 9*a^4*b^3*c*g*h*j*k*l*m - 9*a^3*b^4*c*e*g*j*k*l*m - 9*a^3*b^4*c*d*h*j*k*l*m - 9*a^3*b^4*c*f*g*h*k*l*m + 36*a^4*b*c^3*d*e*j*k*l*m + 9*a^2*b^5*c*d*f*h*k*l*m + 36*a^4*b*c^3*d*e*f*j*k*l + 9*a*b^5*c^2*d*e*f*j*k*l + 36*a^3*b*c^4*d*e*g*h*k*l + 36*a^3*b*c^4*d*e*f*h*k*m + 36*a^3*b*c^4*d*e*f*g*l*m + 9*a*b^5*c^2*d*e*f*h*k*m + 9*a*b^5*c^2*d*e*f*g*l*m - 9*a*b^4*c^3*d*e*f*h*j*k - 9*a*b^4*c^3*d*e*f*g*j*l - 9*a*b^4*c^3*d*e*f*g*h*m + 9*a*b^3*c^4*d*e*f*g*h*j - 9*a*b^6*c*d*e*f*k*l*m + 18*a^4*b^2*c^2*e*g*j*k*l*m + 18*a^4*b^2*c^2*d*h*j*k*l*m + 18*a^4*b^2*c^2*f*g*h*k*l*m - 36*a^3*b^3*c^2*d*e*j*k*l*m - 36*a^3*b^3*c^2*e*f*g*k*l*m - 36*a^3*b^3*c^2*d*f*h*k*l*m + 9*a^3*b^3*c^2*f*g*h*j*k*l + 9*a^3*b^3*c^2*e*g*h*j*k*m + 9*a^3*b^3*c^2*d*g*h*j*l*m - 108*a^3*b^2*c^3*d*e*f*k*l*m + 54*a^2*b^4*c^2*d*e*f*k*l*m - 36*a^3*b^2*c^3*d*f*g*j*k*m + 18*a^3*b^2*c^3*e*f*g*j*k*l + 18*a^3*b^2*c^3*d*f*h*j*k*l + 18*a^3*b^2*c^3*d*e*h*j*k*m + 18*a^3*b^2*c^3*d*e*g*j*l*m - 9*a^2*b^4*c^2*e*f*g*j*k*l - 9*a^2*b^4*c^2*d*f*h*j*k*l - 9*a^2*b^4*c^2*d*e*h*j*k*m - 9*a^2*b^4*c^2*d*e*g*j*l*m + 18*a^3*b^2*c^3*e*f*g*h*k*m + 18*a^3*b^2*c^3*d*f*g*h*l*m - 9*a^2*b^4*c^2*e*f*g*h*k*m - 9*a^2*b^4*c^2*d*f*g*h*l*m - 36*a^2*b^3*c^3*d*e*f*j*k*l - 36*a^2*b^3*c^3*d*e*f*h*k*m - 36*a^2*b^3*c^3*d*e*f*g*l*m + 9*a^2*b^3*c^3*e*f*g*h*j*k + 9*a^2*b^3*c^3*d*f*g*h*j*l + 9*a^2*b^3*c^3*d*e*g*h*j*m + 18*a^2*b^2*c^4*d*e*f*h*j*k + 18*a^2*b^2*c^4*d*e*f*g*j*l + 18*a^2*b^2*c^4*d*e*f*g*h*m - 9*a^5*b^2*c*h*j*k^2*l*m - 9*a^5*b^2*c*g*j*k^2*l*m + 27*a^5*b^2*c*f*j*k^2*l*m - 9*a^4*b^3*c*f*j^2*k^2*l*m + 9*a^3*b^4*c*f^2*j*k^2*l*m - 18*a^5*b*c^2*e*j*k^2*l*m - 9*a^5*b^2*c*g*h*k^2*l*m + 9*a^4*b^3*c*e*j*k^2*l*m - 18*a^5*b*c^2*f*h*k^2*l*m - 18*a^5*b*c^2*d*j*k^2*l*m + 9*a^4*b^3*c*f*h*k^2*l*m + 9*a^4*b^3*c*d*j*k^2*l*m + 36*a^5*b*c^2*e*h*k^2*l*m - 36*a^4*b*c^3*e^2*h*k^2*l*m + 18*a^5*b*c^2*f*h*j*l^2*m - 18*a^5*b*c^2*f*g*k^2*l*m - 18*a^4*b^3*c*e*h*k^2*l*m + 9*a^4*b^3*c*f*g*k^2*l*m + 9*a^3*b^4*c*e*h^2*k^2*l*m - 9*a^2*b^5*c*e^2*h*k^2*l*m - 54*a^5*b*c^2*e*h*j^2*l*m - 18*a^5*b*c^2*e*g*k^2*l*m - 18*a^5*b*c^2*d*h*k^2*l*m + 18*a^4*b^3*c*e*h*j^2*l*m - 9*a^4*b^3*c*f*h*j*k^2*l*m - 9*a^4*b^3*c*f*g*j^2*l*m + 9*a^4*b^3*c*e*g*k^2*l*m + 9*a^4*b^3*c*d*h*k^2*l*m + 18*a^4*b*c^3*f*g^2*j*k*m - 18*a^4*b*c^3*e*g^2*j^2*l*m + 18*a^3*b^4*c*d*g*k^2*l*m - 9*a^3*b^4*c*e*f*k^2*l*m - 9*a^2*b^5*c*d*g^2*k^2*l*m - 18*a^4*b*c^3*f*g^2*h^2*l*m - 18*a^4*b*c^3*d*h^2*j*k*m - 9*a^3*b^4*c*d*f*k^2*l*m - 54*a^4*b*c^3*d*g*j^2*k*m - 18*a^4*b*c^3*f*g*h^2*k*m - 18*a^4*b*c^3*e*g*j^2*k^2*l - 18*a^4*b*c^3*d*h*j^2*k^2*l - 18*a^3*b^4*c*d*g*j*k^2*m + 9*a^3*b^4*c*e*f*j*k^2*m + 9*a^3*b^4*c*d*f*j^2*l*m
\end{aligned}$$



$$\begin{aligned} & 2 - 9a^3b^4cd^2ek^1m^2 - 54a^3b^4cd^2f^2jk^1m + 36a^4b^3cd^2g^2j^2k^1 \\ & *k^2l - 36a^3b^4cd^2g^2jk^1 - 18a^4b^3cd^2ef^2jk^2l + 18a^4b^3cd^2f^2jk^2m \\ & - 18a^3b^4cd^2e^2j^1m + 9a^3b^4cd^2f^2g^2hk^1j^2m - 9a^3b^5c^2d^2g^2 \\ & *c^2d^2g^2jk^1 + 36a^4b^3cd^2g^2hk^2m - 36a^3b^4cd^2g^2hk^1m + 18 \\ & *a^4b^3cd^2ef^2hk^2l - 18a^4b^3cd^2ef^2hk^2m - 18a^4b^3cd^2f^2jk^1l^2 \\ & - 18a^3b^4cd^2f^2h^1m - 18a^3b^4cd^2e^2jk^1m - 9a^3b^5c^2d^2g^2 \\ & *hk^1m - 54a^4b^3cd^2g^2hk^1l^2 - 54a^3b^4cd^2e^2f^2hk^1j^2m - 18a^4b^3cd^2 \\ & *df^2gl^2m - 18a^3b^4cd^2e^2fg^2k^1m - 54a^4b^3cd^2df^2g^2k^1m^2 - 36a^4 \\ & *b^3cd^2ef^2g^2j^2m - 36a^4b^3cd^2df^2hk^1j^2m + 36a^3b^4cd^2e^2fg^2jk^1m + \\ & 36a^3b^4cd^2df^2hk^1j^2m - 18a^4b^3cd^2e^2hk^1m^2 - 18a^4b^3cd^2e^2eg^1 \\ & m^2 + 18a^3b^4cd^2e^2f^2hk^1j^2m - 18a^3b^4cd^2e^2fg^2k^1 - 18a^3b^4cd^2 \\ & f^2hk^1 + 18a^3b^4cd^2f^2g^2k^1m - 9a^2b^5c^2ef^2g^2j^2m - 9a^2b^5c^2 \\ & *df^2hk^1j^2m - 54a^3b^4cd^2df^2g^2j^2m - 18a^3b^4cd^2ef^2g^2j^1 - 18a^3 \\ & *b^4cd^2d^2f^2g^2jk^1 + 9a^3b^4cd^2d^2g^2hk^1jk^1 + 9a^3b^4cd^2d^2f^2g^2k^1 + 9 \\ & *a^3b^4cd^2d^2eg^2k^1m - 9a^3b^4cd^2d^2ef^2hk^1m - 18a^3b^4cd^2ef^2g^2hk^1m \\ & - 18a^3b^4cd^2df^2h^2jk^1 - 9a^3b^4cd^2d^2ef^2k^1m + 18a^3b^4cd^2df^2g^2 \\ & j^2k^1 - 18a^3b^4cd^2df^2g^2h^2m - 18a^3b^4cd^2e^2hk^1j^2k^1 - 18a^3b^4cd^2 \\ & *e^2g^2j^2k^1 + 18a^3b^4cd^2d^2ef^2j^2m - 9a^3b^5c^2d^2e^2ef^2j^2m - 9a^3b^4 \\ & *c^2d^2ef^2k^1 - 18a^2b^3c^5d^2e^2ef^2j^1 - 9a^3b^3c^4d^2e^2eg^2jk^1 + 9a^3 \\ & *b^3c^4d^2e^2ef^2j^1 - 54a^2b^3c^5d^2e^2eg^2h^1 - 18a^2b^3c^5d^2e^2ef^2hk^1 - \\ & 18a^2b^3c^5d^2e^2f^2jk^1 + 18a^3b^3c^4d^2e^2eg^2h^1 - 9a^3b^3c^4d^2f^2g^2 \\ & *hk^1 + 9a^3b^3c^4d^2e^2ef^2hk^1 + 9a^3b^3c^4d^2e^2f^2jk^1 - 36a^3b^3c^4d^2e^2 \\ & *fh^1l^2 + 36a^2b^3c^5d^2e^2fh^1 + 18a^2b^3c^5d^2e^2g^2hk^1 - 18a^2b^3c^5 \\ & *d^2e^2fg^2m - 18a^3b^3c^4d^2e^2fh^1 - 9a^3b^5c^2d^2e^2ef^2hk^1l^2 + 9a^3b^4 \\ & *c^2d^2ef^2h^2l + 9a^3b^3c^4d^2e^2fg^2m - 18a^2b^3c^5d^2e^2ef^2hk^1 - 18 \\ & *a^2b^3c^5d^2e^2ef^2g^2l + 9a^3b^3c^4d^2e^2ef^2hk^1 + 9a^3b^3c^4d^2e^2ef^2g^2l \\ & + 27a^3b^2c^5d^2e^2fg^2k^1 + 9a^3b^4c^3d^2e^2fg^2k^2 - 9a^3b^3c^4d^2e^2ef^2g^2 \\ & *k^2 - 9a^3b^2c^5d^2e^2ef^2hk^1 - 9a^3b^2c^5d^2e^2fg^2j - 9a^3b^2c^5d^2e^2ef^2 \\ & *g^2hk^1 + 72a^4c^4d^2fg^2jk^1m + 72a^4c^4d^2ef^2k^1m + 9a^3b^6cd^2g^2 \\ & *k^1m + 9a^3b^6cd^2ef^2j^2m - 27a^4b^2c^2f^2jk^1m - 9a^4b^2c^2g^2hk^1j^1m + \\ & 36a^3b^3c^2e^2hk^1k^1m - 18a^4b^2c^2e^2hk^1k^1m - 9a^4b^2c^2g^2hk^1j^1m + \\ & 18a^4b^2c^2g^2hk^1j^2k^1m + 18a^4b^2c^2f^2hk^1j^2k^1m + 18a^4b^2c^2f^2g^2j^2 \\ & *k^1m - 18a^4b^2c^2e^2hk^1j^2k^1m - 9a^4b^2c^2g^2hk^1j^2k^1 - 9a^3b^3c^2 \\ & *f^2hk^1jk^1m - 9a^3b^3c^2f^2g^2jk^1m - 63a^4b^2c^2d^2g^2k^2l^1m + \\ & 63a^3b^2c^3d^2g^2k^1m - 45a^2b^4c^2d^2g^2k^1m + 36a^4b^2c^2e^2 \\ & *f^2k^1m + 27a^3b^3c^2d^2g^2k^1m - 9a^4b^2c^2f^2hk^1jk^2l^1 - 9a^4b^2 \\ & *c^2e^2hk^1jk^2m + 9a^3b^3c^2e^2g^2j^1m - 9a^3b^2c^3d^2hk^1j^1m + \\ & 36a^4b^2c^2d^2fk^1l^2m + 27a^4b^2c^2e^2hk^1jk^1l^2 - 27a^3b^2c^3 \\ & *e^2hk^1jk^1 - 18a^3b^2c^3e^2f^2j^1m - 9a^4b^2c^2f^2g^2jk^1l^2 - 9a^4 \\ & *b^2c^2d^2g^2j^1l^2m + 9a^3b^3c^2f^2g^2hk^1l^2m - 9a^3b^3c^2e^2hk^2j^2 \\ & *k^1 + 9a^3b^3c^2d^2hk^2j^2k^1m - 9a^3b^2c^3e^2g^2jk^1m + 9a^2b^4c^2 \\ & *e^2hk^1jk^1 + 72a^4b^2c^2d^2g^2jk^1m^2 + 36a^4b^2c^2d^2ek^1m^2 + 27 \\ & *a^4b^2c^2e^2g^2hk^1l^2m - 27a^4b^2c^2e^2f^2jk^1m^2 - 27a^4b^2c^2d^2f^2 \\ & *j^1m^2 - 27a^3b^2c^3e^2g^2hk^1m + 27a^3b^2c^3e^2f^2jk^1m + 27a^3b^2 \\ & *c^3d^2f^2j^1m + 18a^3b^3c^2d^2g^2j^2k^1m + 9a^3b^3c^2f^2g^2hk^2k^1 \\ & m + 9a^3b^3c^2e^2g^2j^2k^1 - 9a^3b^3c^2e^2g^2hk^2l^1m - 9a^3b^3c^2e^2 \\ & *f^2j^2k^1m + 9a^3b^3c^2d^2hk^2j^2k^1 - 9a^3b^3c^2d^2f^2j^2l^1m + 9a^2b^4 \\ & *c^2e^2g^2hk^1m + 36a^2b^3c^3d^2g^2jk^1 - 27a^4b^2c^2f^2g^2hk^1j^2m \\ & ^2 + 27a^3b^2c^3f^2g^2hk^1j^2m - 18a^4b^2c^2e^2fh^1l^2m - 18a^3b^3c^2 \\ & *d^2g^2jk^2l - 18a^3b^2c^3d^2g^2jk^1 + 18a^2b^3c^3d^2f^2jk^1m - \\ & 9a^4b^2c^2e^2g^2hk^1m^2 - 9a^4b^2c^2d^2g^2hk^1l^2m - 9a^3b^3c^2f^2g^2hk^1 \\ & *j^2m + 9a^3b^3c^2e^2f^2jk^2l - 9a^3b^2c^3f^2g^2hk^1 + 9a^2b^4c^2 \\ & *d^2g^2jk^1 + 9a^2b^3c^3d^2e^2j^1m + 36a^3b^2c^3e^2fg^2l^1m + \\ & 36a^2b^3c^3d^2g^2hk^1m - 18a^3b^3c^2d^2g^2hk^1m - 18a^3b^2c^3d^2 \\ & *g^2hk^1m + 9a^3b^3c^2e^2fh^2k^1m + 9a^3b^3c^2d^2f^2jk^1l^2 - 9a^3b^2 \\ & *c^3f^2g^2hk^1j^1 - 9a^3b^2c^3e^2g^2hk^1j^2m - 9a^2b^4c^2e^2fg^2l^1m \\ & + 9a^2b^4c^2d^2g^2hk^1m + 9a^2b^3c^3d^2f^2hk^1l^1m + 9a^2b^3c^3d^2e^2 \\ & *jk^1m + 36a^3b^2c^3d^2fh^2k^1m + 36a^3b^2c^3d^2e^2j^2k^1 + 18a^3 \\ & *b^3c^2d^2g^2hk^1l^2 + 18a^3b^2c^3e^2g^2hk^2j^1 + 18a^3b^2c^3e^2fh^2k^1 \end{aligned}$$

$$\begin{aligned}
& k^1 - 18a^3b^2c^3efh^2j^m - 18a^3b^2c^3dgh^2k^1 + 18a^3b^2c^3deh^2l^m + 18a^2b^3c^3e^2fh^2j^m - 9a^3b^3c^2egh^2j^1 - \\
& 9a^3b^3c^2efhk^1 + 9a^3b^3c^2dfg^1 - 9a^3b^3c^2deh^2l^m - 9a^3b^2c^3fgh^2jk - 9a^3b^2c^3dgh^2j^m - 9a^2b^4c^2dfh^2k^m - 9a^2b^4c^2deej^2k^1 - 9a^2b^3c^3e^2gh^2j^1 - 9 \\
& a^2b^3c^3e^2fh^2k^1 + 9a^2b^3c^3e^2fg^2k^m - 9a^2b^3c^3deh^2h^1m + 36a^3b^3c^2efgj^2m + 36a^3b^3c^2dfh^2j^m + 18a^3b^3c^2dfg^2k^m - 18a^3b^2c^3efgj^2m - 18a^3b^2c^3dfh^2j^2m \\
& - 18a^2b^3c^3ef^2gj^2m - 18a^2b^3c^3df^2h^2j^m + 9a^3b^3c^2deh^2k^m + 9a^3b^3c^2deg^1m - 9a^3b^2c^3egh^2j^2k - 9a^3b^2c^3dgh^2j^2l + 9a^2b^4c^2efgj^2m + 9a^2b^4c^2dfh^2j^2m \\
& + 9a^2b^3c^3ef^2g^2k^1 + 9a^2b^3c^3df^2h^2k^1 + 72a^2b^2c^4d^2f^2gj^2m + 36a^2b^2c^4d^2ef^2l^m + 27a^3b^2c^3dgh^2jk^2 + 27a^3b^2c^3dfg^2k^2l + 27a^3b^2c^3deeg^2k^2m - 27a^2b^2c^4d^2gh^2jk \\
& - 27a^2b^2c^4d^2f^2g^2k^1 - 27a^2b^2c^4d^2eg^2k^m + 18a^2b^3c^3d^2fg^2j^m - 18a^2b^2c^4d^2eh^2k^1 - 9a^3b^2c^3efh^2jk^2 + 9a^2b^3c^3efg^2j^1 - 9a^2b^3c^3d^2gh^2jk - 9a^2b^3c^3d^2f^2g^2k^1 \\
& - 9a^2b^3c^3d^2eg^2k^m - 9a^2b^2c^4d^2fh^2j^1 - 9a^2b^2c^4d^2eh^2j^m + 36a^2b^2c^4d^2ef^2k^m - 27a^3b^2c^3d^2eh^2j^1 - 27a^2b^2c^4d^2eh^2j^1 - 18a^3b^2c^3d^2eg^2k^1 - 9a^3b^2c^3d^2f^2g^2j^1 + 9a^2b^3c^3efg^2h^2m \\
& + 9a^2b^3c^3d^2eh^2j^1 - 9a^2b^3c^3d^2eg^2h^2m + 9a^2b^3c^3d^2fh^2jk - 9a^2b^3c^3d^2eh^2j^1 - 9a^2b^2c^4e^2f^2gj^2k - 9a^2b^2c^4d^2e^2fg^2jk - 9a^2b^2c^4d^2e^2gj^2m + 63a^3b^2c^3d^2ef^2j^2m - 63a^2b^2c^4d^2ef^2j^2m \\
& - 45a^2b^4c^2d^2ef^2j^2m + 36a^2b^2c^4d^2ef^2k^1 - 27a^3b^2c^3efgh^2l + 27a^2b^3c^3d^2ef^2j^2m + 27a^2b^2c^4e^2f^2gh^2l + 9a^2b^4c^2efgh^2l - 9a^2b^3c^3efgh^2l + 9a^2b^3c^3d^2fg^2h^2m + 9a^2b^3c^3d^2eh^2j^2k + 9a^2b^3c^3d^2eg^2j^2l + 18a^2b^2c^4d^2eg^2jk \\
& - 9a^3b^2c^3d^2eg^2h^2m - 9a^2b^3c^3d^2eg^2jk^2 - 9a^2b^2c^4e^2fg^2hk - 9a^2b^2c^4d^2f^2gh^2l + 18a^2b^2c^4d^2f^2g^2hk - 18a^2b^2c^4d^2eg^2h^2l - 9a^2b^3c^3d^2fg^2hk^2 - 9a^2b^2c^4e^2fg^2h^2j + 36a^2b^3c^3d^2ef^2h^2l - 18a^2b^2c^4d^2ef^2h^2l \\
& - 9a^2b^2c^4d^2f^2gh^2j - 9a^2b^2c^4d^2eg^2h^2j - 27a^2b^2c^4d^2ef^2g^2k^2 + 18a^2b^2c^4d^2fh^2k^2 - 9a^2b^3c^3efg^2k^2 - 9a^2b^2c^4e^2fh^2j^2 - 9a^2b^2c^4d^2f^2h^2k + 45a^2b^3c^3d^2ef^2m^2 + 36a^2b^2c^4d^2eg^2l^2 + 9a^2b^3c^3d^2eg^2l^2 + 9a^2b^2c^4e^2fg^2j^2 + 9a^2b^2c^4d^2f^2h^2j^2 - 9a^2b^2c^4d^2e^2hk^2 - 36a^2b^2c^4d^2e^2f^2l^2 - 9a^2b^2c^4d^2f^2g^2j^2 - 12a^6b^3c^3h^2k^1^3m + 3a^6b^3c^3e^3k^1^3m + 3a^6b^3c^3d^2ef^2l^3 - 12a^6b^3c^3d^2ef^2h^2l + 9a^5b^2c^3h^2k^1^2m + 18a^5b^3c^2g^2k^2^1m - 9a^5b^2c^3h^2j^1l^2m + 9a^5b^3c^2h^2j^2^1m - 9a^4b^3c^3g^2k^2^1m - 3a^4b^2c^2g^3k^1^1m + 18a^5b^3c^2f^2k^1^1m + 15a^3b^3c^2f^3k^1^1m + 9a^5b^2c^3h^2j^2k^2m + 9a^5b^2c^3g^2j^2^1m - 9a^5b^2c^3f^2k^1^1m + 36a^3b^2c^3e^3k^1^1m - 27a^5b^3c^2g^2j^2k^2m - 18a^5b^3c^2h^2j^2k^1^2 - 18a^2b^4c^2e^3k^1^1m - 9a^5b^2c^3g^2j^2k^2m - 9a^5b^2c^3e^2k^2^1m^2 + 9a^5b^3c^2h^2j^2k^2^1 + 9a^5b^3c^2g^2j^2k^2m + 9a^4b^3c^3g^2j^2k^2m + 9a^3b^4c^2e^2k^1^2m + 3a^4b^2c^2h^3j^2k^1 - 54a^4b^3c^3d^2k^2^1m - 51a^2b^3c^3d^3k^1^1m - 27a^4b^3c^3e^2j^2^1m - 18a^5b^3c^2g^2h^2l^2m - 9a^5b^2c^3e^2j^1^2m^2 - 9a^5b^2c^3d^2k^1^2m^2 + 9a^5b^3c^2g^2h^2l^2m + 9a^5b^3c^2g^2j^2k^1^2 + 9a^5b^3c^2e^2j^2l^2m - 9a^3b^4c^2e^2j^1^2m - 9a^2b^5c^2d^2k^2^1m + 3a^4b^2c^2g^2h^3l^1m - 3a^3b^3c^2g^3j^2k^1 + 18a^5b^3c^2e^2j^2k^2m + 18a^5b^3c^2d^2j^2l^1m^2 + 18a^4b^3c^3f^2j^2k^1 + 9a^5b^3c^2g^2h^2k^2m + 9a^5b^3c^2f^2h^2l^1m^2 + 9a^5b^3c^2f^2j^2k^2l^2 - 9a^4b^3c^3e^2j^2k^2m - 9a^4b^3c^3d^2j^2l^1m^2 + 9a^4b^2c^2f^2j^3k^1 + 9a^4b^2c^2e^2j^3k^1 + 9a^4b^2c^2d^2j^3l^1m + 9a^4b^3c^3f^2h^2l^1m + 9a^4b^3c^3e^2j^2k^2m + 9a^4b^3c^3d^2j^2l^1m - 3a^3b^3c^2g^3h^2k^1 - 3a^3b^2c^3f^3j^2k^1 + 3a^2b^4c^2f^3j^2k^1 + 45a^4b^3c^3d^2j^2k^2m - 27a^5b^3c^2d^2j^2k^2m^2 + 18a^5b^3c^2g^2h^2j^2m^2 + 18a^4b^3c^3e^2j^2k^1^2 + 15a^2b^3c^3e^3k^1^2
\end{aligned}$$

$$\begin{aligned}
& j*k*1 - 12*a^3*b^2*c^3*f^3*h*k*m - 12*a^3*b^2*c^3*f^3*g*1*m + 9*a^5*b*c^2*g \\
& *h*k^2*1^2 - 9*a^4*b^3*c*g*h*j^2*m^2 + 9*a^4*b^3*c*d*j*k^2*m^2 + 9*a^4*b^2*c \\
& ^2*g*h*j^3*m + 9*a^4*b*c^3*g^2*h^2*k*1 + 9*a^4*b*c^3*g^2*h^2*j*m + 9*a^2*b \\
& ^5*c*d^2*j*k*m^2 + 3*a^2*b^4*c^2*f^3*h*k*m + 3*a^2*b^4*c^2*f^3*g*1*m + 36*a \\
& ^2*b^2*c^4*d^3*j*k*1 + 18*a^4*b*c^3*e^2*g*1^2*m + 15*a^2*b^3*c^3*e^3*g*1*m \\
& + 12*a^4*b^2*c^2*d*j*k^3*1 + 9*a^5*b*c^2*f*g*k^2*m^2 + 9*a^5*b*c^2*e*h*k^2* \\
& m^2 + 9*a^4*b*c^3*g^2*h*j^2*1 + 9*a^4*b*c^3*f^2*h*k^2*1 + 9*a^4*b*c^3*f^2*g \\
& *k^2*m + 9*a^4*b*c^3*d^2*h*1*m^2 - 9*a^3*b^3*c^2*e*h^3*k*m + 6*a^2*b^3*c^3* \\
& e^3*h*k*m + 45*a^4*b*c^3*e^2*h*j*m^2 + 36*a^2*b^2*c^4*d^3*h*k*m - 33*a^3*b^ \\
& 2*c^3*d*g^3*1*m - 27*a^4*b*c^3*f^2*h*j*1^2 - 27*a^4*b*c^3*e^2*f*1*m^2 - 27* \\
& a^4*b*c^3*e*h^2*j^2*m - 18*a^4*b*c^3*g^2*h*j*k^2 - 18*a^4*b*c^3*f*g^2*k^2*1 \\
& - 18*a^4*b*c^3*e*g^2*k^2*m - 18*a^3*b*c^4*d^2*g^2*1*m + 12*a^4*b^2*c^2*d*h \\
& *k^3*m + 9*a^5*b*c^2*e*f*1^2*m^2 + 9*a^5*b*c^2*d*g*1^2*m^2 + 9*a^4*b*c^3*f^ \\
& 2*g*k*1^2 + 9*a^4*b*c^3*e^2*g*k*m^2 + 9*a^4*b*c^3*g*h^2*j^2*k + 9*a^4*b*c^3 \\
& *f*h^2*j^2*1 + 9*a^4*b*c^3*e*f^2*1^2*m - 9*a^3*b^4*c*e*h^2*j*m^2 + 9*a^3*b* \\
& c^4*e^2*f^2*1*m + 9*a^2*b^5*c*e^2*h*j*m^2 + 9*a^2*b^4*c^2*d*g^3*1*m - 9*a^2 \\
& *b^2*c^4*d^3*g*1*m - 9*a*b^5*c^2*d^2*g^2*1*m - 6*a^4*b^2*c^2*e*h*k^3*1 - 6* \\
& a^3*b^2*c^3*f*g^3*j*m + 3*a^4*b^2*c^2*g*h*j*k^3 + 3*a^4*b^2*c^2*f*g*k^3*1 + \\
& 3*a^4*b^2*c^2*e*g*k^3*m + 3*a^3*b^2*c^3*g^3*h*j*k + 3*a^3*b^2*c^3*f*g^3*k* \\
& 1 + 3*a^3*b^2*c^3*e*g^3*k*m - 27*a^3*b*c^4*d^2*h^2*k*1 + 18*a^4*b*c^3*e*f^2 \\
& *k*m^2 + 18*a^4*b*c^3*d*f^2*1*m^2 + 9*a^4*b*c^3*f*h^2*j*k^2 + 9*a^4*b*c^3*f \\
& *g^2*j*1^2 + 9*a^4*b*c^3*e*g^2*k*1^2 + 9*a^4*b*c^3*d*h^2*k^2*1 + 9*a^3*b^4* \\
& c*e*g*j^2*m^2 + 9*a^3*b^4*c*d*h*j^2*m^2 - 9*a^3*b^3*c^2*e*g*j^3*m - 9*a^3*b \\
& ^3*c^2*d*h*j^3*m + 9*a^3*b*c^4*e^2*g^2*k*1 + 9*a^3*b*c^4*e^2*g^2*j*m + 9*a^ \\
& 3*b*c^4*d^2*h^2*j*m - 3*a^2*b^3*c^3*f^3*h*j*k - 3*a^2*b^3*c^3*f^3*g*j*1 - 3 \\
& *a^2*b^3*c^3*e*f^3*k*m - 3*a^2*b^3*c^3*d*f^3*1*m + 45*a^4*b*c^3*d*g^2*j*m^2 \\
& + 45*a^3*b*c^4*d^2*g*j^2*m + 24*a^4*b^2*c^2*d*g*k*1^3 + 24*a^2*b^2*c^4*e^3 \\
& *f*j*m + 18*a^4*b*c^3*f^2*g*h*m^2 + 18*a^4*b*c^3*d*h^2*j*1^2 + 18*a^3*b*c^4 \\
& *e^2*h^2*j*k - 12*a^4*b^2*c^2*e*g*j*1^3 - 12*a^4*b^2*c^2*e*f*k*1^3 - 12*a^4 \\
& *b^2*c^2*d*e*1^3*m - 12*a^2*b^2*c^4*e^3*g*j*1 - 12*a^2*b^2*c^4*e^3*f*k*1 - \\
& 12*a^2*b^2*c^4*d*e^3*1*m + 9*a^4*b*c^3*f*g*j^2*k^2 + 9*a^4*b*c^3*e*h*j^2*k^ \\
& 2 + 9*a^3*b^2*c^3*e*h^3*j*k + 9*a^3*b^2*c^3*d*h^3*j*1 + 9*a^3*b*c^4*f^2*g^2 \\
& *j*k + 9*a^3*b*c^4*d^2*h*j^2*1 + 9*a^2*b^5*c*d*g^2*j*m^2 + 9*a*b^5*c^2*d^2* \\
& g*j^2*m - 3*a^4*b^2*c^2*d*h*j*1^3 - 3*a^2*b^3*c^3*f^3*g*h*m - 3*a^2*b^2*c^4 \\
& *e^3*h*j*k + 18*a^4*b*c^3*f*g*h^2*1^2 + 18*a^3*b*c^4*e^2*g*h^2*m + 18*a^3*b \\
& *c^4*d^2*h*j*k^2 + 18*a^3*b*c^4*d^2*f*k^2*1 + 18*a^3*b*c^4*d^2*e*k^2*m + 9* \\
& a^4*b*c^3*e*g^2*h*m^2 + 9*a^4*b*c^3*e*f*j^2*1^2 + 9*a^4*b*c^3*d*g*j^2*1^2 + \\
& 9*a^3*b^2*c^3*f*g*h^3*1 + 9*a^3*b^2*c^3*e*g*h^3*m + 9*a^3*b*c^4*f^2*g^2*h* \\
& 1 + 9*a^3*b*c^4*e^2*g*j^2*k + 9*a^3*b*c^4*e^2*f*j^2*1 - 9*a^2*b^3*c^3*d*g^3 \\
& *j*1 + 9*a*b^4*c^3*d^2*g^2*j*1 - 3*a^4*b^2*c^2*f*g*h*1^3 - 3*a^3*b^3*c^2*e* \\
& g*j*k^3 - 3*a^3*b^3*c^2*d*h*j*k^3 - 3*a^3*b^3*c^2*d*f*k^3*1 - 3*a^3*b^3*c^2 \\
& *d*e*k^3*m - 3*a^2*b^2*c^4*e^3*g*h*m - 33*a^3*b^2*c^3*d*e*j^3*m - 27*a^4*b* \\
& c^3*e*f*h^2*m^2 - 27*a^3*b*c^4*d^2*e*k*1^2 - 18*a^4*b*c^3*d*e*j^2*m^2 - 18* \\
& a^3*b*c^4*e*f^2*j^2*k - 18*a^3*b*c^4*d*f^2*j^2*1 - 9*a^4*b^2*c^2*d*e*j*m^3 \\
& + 9*a^4*b*c^3*d*g*h^2*m^2 + 9*a^4*b*c^3*d*e*k^2*1^2 + 9*a^3*b*c^4*f^2*g*h^2 \\
& *k + 9*a^3*b*c^4*e^2*f*j*k^2 + 9*a^3*b*c^4*d^2*f*j*1^2 + 9*a^3*b*c^4*e*f^2* \\
& h^2*m + 9*a^3*b*c^4*d*e^2*k^2*1 - 9*a^2*b^5*c*d*e*j^2*m^2 + 9*a^2*b^4*c^2*d \\
& *e*j^3*m - 9*a^2*b^3*c^3*d*g^3*h*m + 9*a^2*b*c^5*d^2*e^2*k*1 + 9*a^2*b*c^5* \\
& d^2*e^2*j*m + 9*a*b^4*c^3*d^2*g^2*h*m - 6*a^3*b^2*c^3*d*g*j^3*k - 3*a^3*b^3 \\
& *c^2*f*g*h*k^3 + 3*a^3*b^2*c^3*e*f*j^3*k + 3*a^3*b^2*c^3*d*f*j^3*1 + 3*a^2* \\
& b^2*c^4*e*f^3*j*k + 3*a^2*b^2*c^4*d*f^3*j*1 + 45*a^3*b*c^4*d^2*g*h*1^2 + 36 \\
& *a^4*b^2*c^2*e*f*g*m^3 + 36*a^4*b^2*c^2*d*f*h*m^3 - 27*a^3*b*c^4*e^2*g*h*k^ \\
& 2 - 27*a^3*b*c^4*d*g^2*h^2*1 - 18*a^3*b*c^4*f^2*g*h*j^2 + 18*a^3*b*c^4*d*e^ \\
& 2*j*1^2 + 15*a^3*b^3*c^2*d*e*j*1^3 + 12*a^2*b^2*c^4*e*f^3*g*m + 12*a^2*b^2* \\
& c^4*d*f^3*h*m + 9*a^3*b*c^4*f*g^2*h^2*j + 9*a^3*b*c^4*e*g^2*h^2*k + 9*a^3*b \\
& *c^4*d*f^2*j*k^2 + 9*a^2*b*c^5*d^2*f^2*j*k + 9*a*b^5*c^2*d^2*g*h*1^2 - 9*a* \\
& b^4*c^3*d^2*g*h^2*1 - 6*a^2*b^2*c^4*e*f^3*h*1 + 3*a^3*b^2*c^3*f*g*h*j^3 + 3 \\
& *a^2*b^2*c^4*f^3*g*h*j + 45*a^3*b*c^4*d^2*f*g*m^2 - 27*a^2*b*c^5*d^2*f^2*g* \\
& m + 18*a^3*b*c^4*e^2*f*g*1^2 + 15*a^3*b^3*c^2*e*f*g*1^3 - 12*a^3*b^2*c^3*d*
\end{aligned}$$

$$\begin{aligned}
& e^j k^3 + 9a^3 b^3 c^4 d^2 e^h m^2 + 9a^3 b^3 c^4 e^g^2 h^j + 9a^3 b^3 c^4 e^f^2 h^k - 9a^2 b^3 c^3 d^2 f^h^3 l + 9a^2 b^3 c^5 d^2 f^2 h^l + 9a^2 b^3 c^4 d^2 f^2 g^m + 6a^3 b^3 c^2 d^2 f^h^3 l + 3a^2 b^4 c^2 d^2 e^j k^3 + 18a^3 b^3 c^4 e^f g^2 k^2 + 18a^2 b^3 c^5 d^2 g^2 h^j + 18a^2 b^3 c^5 d^2 f^g^2 l + 18a^2 b^3 c^5 d^2 e^g^2 m - 12a^3 b^2 c^3 d^2 f^h^3 k^3 + 9a^3 b^3 c^4 e^f h^2 j^2 + 9a^3 b^3 c^4 d^2 f^2 g^l^2 + 9a^3 b^3 c^4 d^2 e^2 g^m^2 + 9a^3 b^3 c^4 d^2 g^h^2 j^2 + 9a^2 b^2 c^4 e^f g^3 k + 9a^2 b^2 c^4 d^2 g^3 h^j + 9a^2 b^2 c^4 d^2 f^g^3 l + 9a^2 b^2 c^4 d^2 e^g^3 m + 9a^2 b^3 c^5 e^2 f^2 h^j + 9a^2 b^3 c^5 e^2 f^2 g^k - 9a^2 b^3 c^4 d^2 g^2 h^j - 9a^2 b^3 c^4 d^2 f^g^2 l - 9a^2 b^3 c^4 d^2 e^g^2 m - 3a^3 b^2 c^3 e^f g^k^3 + 3a^2 b^4 c^2 e^f g^k^3 + 3a^2 b^4 c^2 d^2 f^h^3 k^3 - 54a^3 b^3 c^4 d^2 e^f^2 m^2 - 51a^3 b^3 c^2 d^2 e^f^2 m^3 - 27a^3 b^3 c^4 d^2 e^g^2 l^2 + 9a^3 b^3 c^4 d^2 e^h^2 k^2 + 9a^2 b^3 c^5 e^2 f^g^2 j + 9a^2 b^3 c^5 d^2 f^h^2 j + 9a^2 b^3 c^5 d^2 e^h^2 k + 9a^2 b^3 c^5 d^2 e^2 g^2 l - 9a^2 b^3 c^5 d^2 e^2 g^l - 9a^2 b^3 c^5 d^2 e^2 f^m - 3a^2 b^3 c^3 e^f g^j^3 - 3a^2 b^3 c^3 d^2 f^h^3 j^3 + 36a^3 b^2 c^3 d^2 e^f^3 l^3 - 27a^2 b^3 c^5 d^2 f^g^2 j^2 - 18a^2 b^4 c^2 d^2 e^f^3 l^3 - 18a^2 b^3 c^5 d^2 e^h^2 j + 9a^2 b^3 c^5 d^2 e^h^2 j^2 + 9a^2 b^3 c^5 d^2 f^2 g^2 j + 9a^2 b^4 c^3 d^2 e^2 f^l^2 + 9a^2 b^3 c^4 d^2 f^g^2 j^2 - 9a^2 b^2 c^5 d^2 f^2 g^2 j - 9a^2 b^2 c^5 d^2 e^f^2 l + 3a^2 b^2 c^4 d^2 e^h^3 j - 18a^2 b^3 c^5 e^2 f^g^2 h^2 + 18a^2 b^3 c^5 d^2 e^f^2 k^2 + 15a^2 b^3 c^3 d^2 e^f^2 k^3 + 9a^2 b^3 c^5 e^f^2 g^2 h + 9a^2 b^3 c^5 d^2 e^2 g^2 j^2 - 9a^2 b^3 c^4 d^2 e^f^2 k^2 + 9a^2 b^2 c^5 d^2 e^g^2 j - 9a^2 b^2 c^5 d^2 e^2 f^2 k + 3a^2 b^2 c^4 e^f g^h^3 + 18a^2 b^3 c^5 d^2 e^f^2 j^2 + 9a^2 b^3 c^5 d^2 f^2 g^h^2 - 9a^2 b^3 c^4 d^2 e^f^2 j^2 + 9a^2 b^2 c^5 d^2 f^g^2 h - 3a^2 b^2 c^4 d^2 e^f^2 j^3 + 9a^2 b^3 c^5 d^2 e^g^2 h^2 - 9a^2 b^2 c^5 d^2 e^g^2 h^2 + 9a^2 b^2 c^5 d^2 e^2 f^h^2 - 36a^6 c^2 f^j k^l^2 m^2 + 36a^5 c^3 f^2 j k^l^2 m - 36a^5 c^3 f^h^2 j^2 l^2 m + 36a^5 c^3 e^h^2 j^2 l^2 m - 18a^6 b^3 c^j^2 k^l^2 m^2 + 9a^6 b^3 c^j k^2 l^2 m + 3a^5 b^2 c^j^3 k^l^2 m - 36a^5 c^3 f^g^2 j k^2 m - 36a^5 c^3 e^f^2 k^2 l^2 m + 36a^5 c^3 d^2 g^k^2 l^2 m - 36a^4 c^4 d^2 g^k^2 l^2 m - 36a^5 c^3 e^h^2 j k^2 l^2 m - 36a^5 c^3 e^f^2 j^2 l^2 m - 36a^5 c^3 d^2 f^k^2 l^2 m + 36a^4 c^4 e^2 h^j k^2 l^2 m + 36a^4 c^4 e^2 f^j k^2 l^2 m + 9a^6 b^3 c^h^2 k^2 l^2 m^2 - 3a^4 b^3 c^h^3 k^2 l^2 m - 36a^5 c^3 e^g^2 h^2 l^2 m + 36a^5 c^3 e^f^2 j k^2 m^2 - 36a^5 c^3 d^2 g^2 j k^2 m^2 + 36a^5 c^3 d^2 f^2 j k^2 m^2 - 36a^5 c^3 d^2 e^k^2 l^2 m^2 + 36a^4 c^4 e^2 g^h^2 l^2 m - 36a^4 c^4 e^f^2 j k^2 m - 36a^4 c^4 d^2 f^2 j k^2 m + 9a^6 b^3 c^h^2 j^2 l^2 m^2 + 9a^6 b^3 c^g^2 k^2 l^2 m^2 + 9a^5 b^2 c^g^2 k^3 l^2 m + 3a^3 b^4 c^g^3 k^2 l^2 m + 36a^5 c^3 f^g^2 h^2 j^2 m^2 + 36a^5 c^3 e^f^2 h^2 l^2 m^2 - 36a^4 c^4 f^2 g^h^2 j^2 m - 36a^4 c^4 e^f^2 h^2 l^2 m - 24a^4 b^3 c^3 f^3 k^2 l^2 m - 12a^5 b^3 c^2 h^2 j^3 k^2 m - 12a^5 b^3 c^2 g^2 j^3 l^2 m - 3a^2 b^5 c^3 f^3 k^2 l^2 m - 36a^4 c^4 e^g^2 h^2 k^2 l^2 m - 36a^4 c^4 e^f^2 g^2 l^2 m + 12a^5 b^2 c^e^2 k^2 l^3 m - 6a^5 b^2 c^f^2 j^2 l^3 m + 3a^5 b^2 c^h^2 j k^2 l^3 + 48a^3 b^3 c^4 d^3 k^2 l^2 m + 36a^4 c^4 e^f^2 h^2 j^2 m + 36a^4 c^4 d^2 g^h^2 k^2 l^2 m - 36a^4 c^4 d^2 f^h^2 k^2 m - 36a^4 c^4 d^2 e^j^2 k^2 l^2 m + 24a^5 b^3 c^2 d^2 k^3 l^2 m + 21a^5 b^3 c^2 d^3 k^2 l^2 m - 12a^5 b^3 c^2 g^2 j k^3 l^2 m - 9a^4 b^3 c^2 d^2 k^3 l^2 m + 6a^5 b^3 c^2 f^2 j k^3 m + 3a^5 b^2 c^g^2 h^2 l^3 m - 36a^4 c^4 e^f^2 h^2 j^2 l^2 m - 12a^5 b^3 c^2 g^2 h^2 k^3 m - 3a^5 b^2 c^e^2 j k^2 m^3 - 3a^5 b^2 c^d^2 j^2 l^2 m^3 - 36a^4 c^4 d^2 g^2 h^2 j k^2 - 36a^4 c^4 d^2 f^2 g^k^2 l^2 m - 36a^4 c^4 d^2 e^h^2 k^2 l^2 m - 36a^4 c^4 d^2 e^g^2 k^2 m + 36a^3 c^5 d^2 g^2 h^2 j k^2 + 36a^3 c^5 d^2 f^2 g^2 k^2 l^2 m - 36a^3 c^5 d^2 f^2 g^2 j^2 m + 36a^3 c^5 d^2 e^h^2 k^2 l^2 m + 36a^3 c^5 d^2 e^g^2 k^2 m - 36a^3 c^5 d^2 e^f^2 l^2 m + 24a^5 b^2 c^e^2 h^2 l^2 m^3 - 24a^3 b^3 c^4 e^3 j k^2 l^2 m - 12a^5 b^2 c^f^2 h^2 k^2 m^3 - 12a^5 b^2 c^f^2 g^2 l^2 m^3 - 3a^5 b^2 c^g^2 h^2 j^2 m^3 - 3a^4 b^3 c^e^2 j k^2 l^3 - 3a^4 b^3 c^2 e^3 j k^2 l + 36a^4 c^4 d^2 e^h^2 j^2 l^2 + 36a^4 c^4 d^2 e^g^2 k^2 l^2 - 36a^3 c^5 d^2 e^2 h^2 j^2 l - 36a^3 c^5 d^2 e^2 g^2 k^2 l - 36a^3 c^5 d^2 e^2 f^2 k^2 m + 24a^4 b^3 c^3 e^h^3 k^2 m - 24a^3 b^3 c^4 e^3 g^2 l^2 m - 18a^4 b^3 c^3 d^3 j k^2 l - 12a^4 b^3 c^3 g^2 h^3 j^2 l - 12a^4 b^3 c^3 f^2 h^3 k^2 l - 12a^4 b^3 c^3 d^2 h^3 l^2 m + 12a^3 b^3 c^4 e^3 h^2 k^2 m + 6a^4 b^3 c^3 f^2 h^3 j^2 m - 3a^4 b^3 c^3 g^2 h^2 j^2 l^3 - 3a^4 b^3 c^3 f^2 h^2 k^2 l^3 - 3a^4 b^3 c^3 e^2 g^2 l^3 m - 3a^4 b^3 c^3 d^2 h^2 l^3 m - 3a^4 b^5 c^2 e^3 h^2 k^2 m - 3a^4 b^5 c^2 e^3 g^2 l^2 m + 36a^4 c^4 e^f^2 g^2 h^2 l^2 - 36a^4 c^4 d^2 e^f^2 j^2 m^2 - 36a^3 c^5 e^2 f^2 g^2 h^2 l - 36a^3 c^5 d^2 f^2 g^2 j^2 k - 36a^3 c^5 d^2 e^f^2 k^2 l + 36a^3 c^5 d^2 e^f^2 j^2 m - 18a^4 b^3 c^3 d^3 h^2 k^2 m - 9a^4 b^4 c^3 d^3 g^2 l^2 m + 30a
\end{aligned}$$

$$\begin{aligned}
& ^5b^2c^2d^2g^2k^2m^3 - 30a^4b^3c^2d^2g^2k^2m^3 - 24a^5b^2c^2e^2f^2k^2m^3 - 24a^5b^2c^2d^2f^2l^2m^3 + 24a^4b^3c^3e^2g^2j^3m + 24a^4b^3c^3d^2h^2j^3m + 15a^4b^3c^3e^2f^2k^2m^3 + 15a^4b^3c^3d^2f^2l^2m^3 + 12a^5b^2c^2e^2g^2j^3m + 12a^5b^2c^2d^2h^2j^3m - 12a^4b^3c^3f^2h^2j^3k - 12a^4b^3c^3f^2g^2j^3l + 6a^4b^3c^3e^2g^2j^3m + 6a^4b^3c^3d^2h^2j^3m + 6a^4b^3c^3e^2h^2j^3l + 36a^3c^5d^2e^2g^2h^2l - 24a^5b^2c^2f^2g^2h^2m^3 + 15a^4b^3c^3f^2g^2h^2m^3 - 9a^3b^6c^2d^2g^2j^2m^2 - 6a^3b^4c^2d^2g^2k^2l^3 - 6a^3b^4c^3e^3f^2j^2m + 3a^3b^4c^3e^2g^2j^2l^3 + 3a^3b^4c^3e^2f^2k^2l^3 + 3a^3b^4c^3d^2h^2j^2l^3 + 3a^3b^4c^3d^2e^2l^3m + 3a^3b^4c^3e^3h^2j^2k + 3a^3b^4c^3e^3g^2j^2l + 3a^3b^4c^3e^3f^2k^2l + 3a^3b^4c^3d^2e^3l^2m - 36a^3c^5d^2e^2g^2h^2k + 30a^2b^3c^5d^3f^2j^2m - 30a^3b^3c^4d^3f^2j^2m + 24a^3b^3c^4d^2g^3j^2l - 24a^2b^3c^5d^3h^2j^2k - 24a^2b^3c^5d^3f^2k^2l - 24a^2b^3c^5d^3e^2k^2m + 15a^3b^3c^4d^3h^2j^2k + 15a^3b^3c^4d^3f^2k^2l + 15a^3b^3c^4d^3e^2k^2m - 12a^3b^3c^4e^2g^3j^2k + 12a^2b^3c^5d^3g^2j^2l + 6a^3b^3c^4d^3g^2j^2l + 3a^3b^4c^3f^2g^2h^2l^3 + 3a^3b^4c^3e^3g^2h^2m + 24a^3b^3c^4d^2g^3h^2m - 12a^3b^3c^4f^2g^3h^2k + 12a^2b^3c^5d^3g^2h^2m - 9a^3b^4c^2d^2e^2j^2m^3 + 6a^3b^3c^4e^2g^3h^2l + 6a^3b^3c^4d^3g^2h^2m + 36a^3c^5d^2e^2f^2g^2k^2 - 36a^2c^6d^2e^2f^2g^2k^2 - 24a^4b^3c^3d^2e^2j^2l^3 - 18a^3b^4c^3e^2f^2g^2m^3 - 18a^3b^4c^3d^2f^2h^2m^3 - 3a^2b^5c^3d^2e^2j^2l^3 - 3a^3b^3c^4d^2e^3j^2l - 24a^4b^3c^3e^2f^2g^2l^3 + 24a^3b^3c^4d^2f^2h^3l + 12a^4b^3c^3d^2f^2h^2l^3 - 12a^3b^3c^4e^2g^2h^3j - 12a^3b^3c^4e^2f^2h^3k - 12a^3b^3c^4d^2e^2h^3m - 12a^3b^2c^5d^3e^2j^2k + 6a^3b^3c^4d^2g^2h^3k - 3a^2b^5c^3e^2f^2g^2l^3 - 3a^2b^5c^3d^2f^2h^2l^3 - 3a^3b^3c^4e^3g^2h^2j - 3a^3b^3c^4e^3f^2h^2k - 3a^3b^3c^4e^3f^2g^2l - 3a^3b^3c^4d^2e^3h^2m + 24a^3b^2c^5d^3e^2h^2l - 12a^3b^2c^5d^3f^2h^2k - 3a^3b^2c^5d^3g^2h^2j - 3a^3b^2c^5d^3f^2g^2l - 3a^3b^2c^5d^3e^2g^2m + 48a^4b^3c^3d^2e^2f^2m^3 + 24a^2b^3c^5d^2e^2f^3m + 21a^2b^5c^3d^2e^2f^2m^3 - 12a^2b^3c^5e^2f^3g^2j - 12a^2b^3c^5d^2f^3h^2j - 9a^3b^3c^4d^2e^2f^3m + 6a^2b^3c^5d^2f^3g^2k + 12a^3b^2c^5d^2e^3f^2l - 6a^3b^2c^5d^2e^3g^2k + 3a^3b^2c^5d^2e^3h^2j - 24a^3b^3c^4d^2e^2f^2k^3 - 12a^2b^3c^5d^2e^2g^3j - 3a^3b^5c^2d^2e^2f^2k^3 + 3a^3b^2c^5e^3f^2g^2h - 12a^2b^3c^5d^2f^2g^3h + 9a^3b^2c^5d^2e^2f^3j + 9a^3b^3c^6d^2e^2f^2j + 3a^3b^4c^3d^2e^2f^2j^3 + 9a^3b^3c^6d^2e^2g^2h + 9a^3b^3c^6d^2e^2f^2h - 3a^3b^3c^4d^2e^2f^2h^3 - 18a^3b^3c^6d^2e^2f^2g^2 + 9a^3b^3c^6d^2e^2f^2g^2 + 3a^3b^2c^5d^2e^2f^2g^3 - 36a^4b^2c^2e^2k^2l^2m - 9a^4b^2c^2g^2j^2k^2m + 45a^3b^3c^2d^2k^2l^2m + 36a^4b^2c^2e^2j^2l^2m^2 + 9a^4b^2c^2g^2j^2k^2l^2m + 9a^3b^3c^2e^2j^2l^2m + 9a^4b^2c^2g^2h^2k^2m - 9a^4b^2c^2f^2h^2l^2m - 9a^3b^3c^2f^2j^2k^2l - 45a^3b^3c^2d^2j^2k^2m^2 + 36a^3b^2c^3d^2j^2k^2m + 18a^4b^2c^2f^2h^2k^2m^2 + 18a^4b^2c^2f^2g^2l^2m^2 - 9a^4b^2c^2g^2h^2k^2l^2 - 9a^4b^2c^2f^2h^2k^2m - 9a^4b^2c^2e^2j^2k^2l - 9a^2b^4c^2d^2j^2k^2m - 36a^3b^2c^3d^2j^2k^2l - 27a^3b^2c^3e^2h^2k^2m + 9a^4b^2c^2g^2h^2j^2l^2 + 9a^4b^2c^2f^2h^2k^2l^2 - 9a^4b^2c^2f^2g^2k^2m^2 - 9a^4b^2c^2e^2g^2l^2m^2 - 9a^4b^2c^2d^2j^2k^2l^2 + 9a^4b^2c^2d^2h^2l^2m - 9a^3b^3c^2e^2g^2l^2m + 9a^2b^4c^2e^2h^2k^2m + 9a^2b^4c^2d^2j^2k^2l - 45a^3b^3c^2e^2h^2j^2m^2 + 36a^4b^2c^2e^2h^2j^2m^2 + 36a^3b^2c^3e^2h^2j^2m - 36a^3b^2c^3d^2h^2k^2m + 36a^2b^3c^3d^2g^2l^2m - 9a^4b^2c^2f^2h^2j^2l^2 - 9a^4b^2c^2d^2h^2k^2m^2 + 9a^3b^3c^2f^2h^2j^2l^2 + 9a^3b^3c^2e^2f^2l^2m^2 + 9a^3b^3c^2e^2h^2j^2m - 9a^3b^2c^3f^2h^2j^2l - 9a^2b^4c^2e^2h^2j^2m + 9a^2b^4c^2d^2h^2k^2m + 36a^3b^2c^3d^2h^2k^2l^2 - 27a^4b^2c^2e^2g^2j^2m^2 - 27a^4b^2c^2d^2h^2j^2m^2 - 9a^4b^2c^2d^2h^2k^2l^2 - 9a^3b^3c^2e^2f^2k^2m^2 - 9a^3b^3c^2d^2f^2l^2m^2 + 9a^3b^2c^3f^2h^2j^2k + 9a^3b^2c^3f^2g^2j^2l - 9a^3b^2c^3e^2g^2k^2l - 9a^3b^2c^3e^2f^2k^2m - 9a^3b^2c^3d^2f^2l^2m - 9a^2b^4c^2d^2h^2k^2l + 9a^2b^3c^3d^2h^2k^2l - 81a^3b^2c^3d^2g^2j^2m^2 + 54a^2b^4c^2d^2g^2j^2m^2 - 45a^3b^3c^2d^2g^2j^2m^2 - 45a^2b^3c^3d^2g^2j^2m + 36a^3b^2c^3d^2f^2k^2m^2 + 36a^3b^2c^3d^2g^2j^2m + 18a^3b^2c^3e^2g^2j^2l^2 + 18a^3b^2c^3e^2f^2k^2l^2 + 18a^3b^2c^3d^2e^2l^2m - 9a^4b^2c^2d^2f^2k^2m^2 - 9a^3b^3c^2f^2g^2h^2m^2 - 9a^3b^3c^2d^2h^2j^2l^2 - 9a^3b^2c^3f^2
\end{aligned}$$

$$\begin{aligned}
& *g*j*k^2 - 9*a^3*b^2*c^3*d^2*e*l*m^2 - 9*a^3*b^2*c^3*f*g^2*h^2*m - 9*a^3*b^2 \\
& *c^3*e*g^2*j^2*1 - 9*a^3*b^2*c^3*e*f^2*k^2*1 - 9*a^2*b^4*c^2*d^2*f*k*m^2 - \\
& 9*a^2*b^4*c^2*d*g^2*j^2*m - 9*a^2*b^3*c^3*e^2*h^2*j*k - 9*a^2*b^2*c^4*d^2* \\
& f^2*k*m - 27*a^2*b^2*c^4*d^2*g^2*j*1 - 9*a^3*b^3*c^2*f*g*h^2*1^2 + 9*a^3*b^2 \\
& *c^3*e*g^2*j*k^2 - 9*a^3*b^2*c^3*e*f^2*j*1^2 - 9*a^3*b^2*c^3*d*h^2*j^2*k - \\
& 9*a^3*b^2*c^3*d*f^2*k*1^2 - 9*a^3*b^2*c^3*d*e^2*k*m^2 - 9*a^2*b^3*c^3*e^2* \\
& g*h^2*m - 9*a^2*b^3*c^3*d^2*h*j*k^2 - 9*a^2*b^3*c^3*d^2*f*k^2*1 - 9*a^2*b^3 \\
& *c^3*d^2*e*k^2*m + 36*a^3*b^3*c^2*d*e*j^2*m^2 + 36*a^3*b^2*c^3*e^2*f*h*m^2 \\
& - 27*a^2*b^2*c^4*d^2*g^2*h*m + 9*a^3*b^3*c^2*e*f*h^2*m^2 + 9*a^3*b^2*c^3*f* \\
& g^2*h*k^2 - 9*a^2*b^4*c^2*e^2*f*h*m^2 + 9*a^2*b^3*c^3*d^2*e*k*1^2 - 9*a^2*b \\
& ^2*c^4*e^2*f^2*h*m - 45*a^2*b^3*c^3*d^2*g*h*1^2 - 36*a^3*b^2*c^3*e*f^2*g*m^2 \\
& + 36*a^3*b^2*c^3*d*g^2*h*1^2 - 36*a^3*b^2*c^3*d*f^2*h*m^2 + 36*a^2*b^2*c^4 \\
& *d^2*g*h^2*1 - 9*a^3*b^2*c^3*e*g*h^2*k^2 + 9*a^2*b^4*c^2*e*f^2*g*m^2 - 9*a \\
& ^2*b^4*c^2*d*g^2*h*1^2 + 9*a^2*b^4*c^2*d*f^2*h*m^2 + 9*a^2*b^3*c^3*e^2*g*h* \\
& k^2 + 9*a^2*b^3*c^3*d*g^2*h^2*1 - 9*a^2*b^3*c^3*d*e^2*j*1^2 - 9*a^2*b^2*c^4 \\
& *e^2*g^2*h*k - 9*a^2*b^2*c^4*e^2*f*g^2*m - 9*a^2*b^2*c^4*d^2*f*j^2*k - 9*a^2 \\
& *b^2*c^4*d^2*f*h^2*m - 9*a^2*b^2*c^4*d^2*e*j^2*1 - 45*a^2*b^3*c^3*d^2*f*g* \\
& m^2 + 36*a^3*b^2*c^3*d*f*g^2*m^2 - 27*a^3*b^2*c^3*d*f*h^2*1^2 + 18*a^2*b^2* \\
& c^4*d^2*e*j*k^2 + 9*a^2*b^4*c^2*d*f*h^2*1^2 - 9*a^2*b^4*c^2*d*f*g^2*m^2 - 9 \\
& *a^2*b^3*c^3*e^2*f*g*1^2 + 9*a^2*b^2*c^4*e^2*g*h^2*j + 9*a^2*b^2*c^4*e^2*f* \\
& h^2*k - 9*a^2*b^2*c^4*e*f^2*g^2*1 - 9*a^2*b^2*c^4*d*f^2*g^2*m - 9*a^2*b^2*c \\
& ^4*d*e^2*j^2*k + 9*a^2*b^2*c^4*d*e^2*h^2*m + 18*a^4*b^2*c^2*f^2*j^2*m^2 + 1 \\
& 8*a^3*b^2*c^3*e^2*h^2*1^2 - 9*a^2*b^4*c^2*e^2*h^2*1^2 + 18*a^2*b^2*c^4*d^2* \\
& g^2*k^2 + 12*a^6*c^2*j^3*k*1*m + 3*a^6*b^2*j*k*1*m^3 - 12*a^6*c^2*g*k^3*1*m \\
& - 12*a^5*c^3*g^3*k*1*m - 24*a^6*c^2*e*k*1^3*m - 24*a^4*c^4*e^3*k*1*m + 12* \\
& a^6*c^2*h*j*k*1^3 + 12*a^6*c^2*f*j*1^3*m + 12*a^5*c^3*h^3*j*k*1 - 3*a^5*b^3 \\
& *h*j*k*m^3 - 3*a^5*b^3*g*j*1*m^3 - 3*a^5*b^3*f*k*1*m^3 + 12*a^6*c^2*g*h*1^3 \\
& *m + 12*a^5*c^3*g*h^3*1*m - 12*a^6*c^2*e*j*k*m^3 - 12*a^6*c^2*d*j*1*m^3 - 1 \\
& 2*a^5*c^3*f*j^3*k*1 - 12*a^5*c^3*e*j^3*k*m - 12*a^5*c^3*d*j^3*1*m - 12*a^4* \\
& c^4*f^3*j*k*1 + 24*a^6*c^2*f*h*k*m^3 + 24*a^6*c^2*f*g*1*m^3 + 24*a^4*c^4*f^ \\
& 3*h*k*m + 24*a^4*c^4*f^3*g*1*m - 12*a^6*c^2*g*h*j*m^3 - 12*a^6*c^2*e*h*1*m^3 \\
& - 12*a^5*c^3*g*h*j^3*m + 3*b^6*c^2*d^3*j*k*1 + 3*a^4*b^4*e*j*k*m^3 + 3*a^ \\
& 4*b^4*d*j*1*m^3 - 24*a^5*c^3*d*j*k^3*1 - 24*a^3*c^5*d^3*j*k*1 - 6*a^4*b^4*e \\
& *h*1*m^3 + 3*b^6*c^2*d^3*h*k*m + 3*b^6*c^2*d^3*g*1*m + 3*a^6*b*c*j^2*1^3*m \\
& + 3*a^4*b^4*g*h*j*m^3 + 3*a^4*b^4*f*h*k*m^3 + 3*a^4*b^4*f*g*1*m^3 - 24*a^5* \\
& c^3*d*h*k^3*m - 24*a^3*c^5*d^3*h*k*m + 12*a^5*c^3*g*h*j*k^3 + 12*a^5*c^3*f* \\
& g*k^3*1 + 12*a^5*c^3*e*h*k^3*1 + 12*a^5*c^3*e*g*k^3*m + 12*a^4*c^4*g^3*h*j* \\
& k + 12*a^4*c^4*f*g^3*k*1 + 12*a^4*c^4*f*g^3*j*m + 12*a^4*c^4*e*g^3*k*m + 12 \\
& *a^4*c^4*d*g^3*1*m + 12*a^3*c^5*d^3*g*1*m + 3*a^6*b*c*j*k^3*m^2 - 9*a^6*b*c \\
& *h^2*1*m^3 - 3*a^5*b*c^2*j^4*k*1 + 24*a^5*c^3*e*g*j*1^3 + 24*a^5*c^3*e*f*k* \\
& 1^3 + 24*a^5*c^3*d*e*1^3*m + 24*a^3*c^5*e^3*g*j*1 + 24*a^3*c^5*e^3*f*k*1 + \\
& 24*a^3*c^5*d*e^3*1*m - 12*a^5*c^3*d*h*j*1^3 - 12*a^5*c^3*d*g*k*1^3 - 12*a^4 \\
& *c^4*e*h^3*j*k - 12*a^4*c^4*d*h^3*j*1 - 12*a^3*c^5*e^3*h*j*k - 12*a^3*c^5*e \\
& ^3*f*j*m + 9*a^4*b*c^3*g^4*1*m + 6*b^5*c^3*d^3*f*j*m + 6*a^3*b^5*d*g*k*m^3 \\
& - 3*b^5*c^3*d^3*h*j*k - 3*b^5*c^3*d^3*g*j*1 - 3*b^5*c^3*d^3*f*k*1 - 3*b^5*c \\
& ^3*d^3*e*k*m - 3*a^3*b^5*e*g*j*m^3 - 3*a^3*b^5*e*f*k*m^3 - 3*a^3*b^5*d*h*j* \\
& m^3 - 3*a^3*b^5*d*f*1*m^3 - 12*a^5*c^3*f*g*h*1^3 - 12*a^4*c^4*f*g*h^3*1 - 1 \\
& 2*a^4*c^4*e*g*h^3*m - 12*a^3*c^5*e^3*g*h*m - 9*a^6*b*c*g*k^2*m^3 - 3*b^5*c^ \\
& 3*d^3*g*h*m + 3*a^6*b*c*f*1^3*m^2 - 3*a^3*b^5*f*g*h*m^3 + 12*a^5*c^3*d*e*j* \\
& m^3 + 12*a^4*c^4*e*f*j^3*k + 12*a^4*c^4*d*g*j^3*k + 12*a^4*c^4*d*f*j^3*1 + \\
& 12*a^4*c^4*d*e*j^3*m + 12*a^3*c^5*e*f^3*j*k + 12*a^3*c^5*d*f^3*j*1 - 9*a^6* \\
& b*c*e*1^2*m^3 - 24*a^5*c^3*e*f*g*m^3 - 24*a^5*c^3*d*f*h*m^3 - 24*a^3*c^5*e* \\
& f^3*g*m - 24*a^3*c^5*d*f^3*h*m - 15*a^2*b*c^5*d^4*1*m + 15*a*b^3*c^4*d^4*1* \\
& m + 12*a^4*c^4*f*g*h*j^3 + 12*a^3*c^5*f^3*g*h*j + 12*a^3*c^5*e*f^3*h*1 + 9* \\
& a^3*b*c^4*f^4*k*1 - 9*a^3*b*c^4*f^4*j*m + 3*b^4*c^4*d^3*e*j*k + 3*a^5*b^2*c \\
& *g*j*1^4 + 3*a^5*b^2*c*f*k*1^4 + 3*a^5*b^2*c*d*1^4*m - 3*a^5*b*c^2*h*j*k^4 \\
& - 3*a^5*b*c^2*f*k^4*1 - 3*a^5*b*c^2*e*k^4*m - 3*a^4*b*c^3*h^4*j*k + 3*a^2*b \\
& ^6*d*e*j*m^3 + 3*a*b^4*c^3*e^4*k*m + 24*a^4*c^4*d*e*j*k^3 + 24*a^2*c^6*d^3* \\
& e*j*k - 6*b^4*c^4*d^3*e*h*1 + 3*b^4*c^4*d^3*g*h*j + 3*b^4*c^4*d^3*f*h*k + 3
\end{aligned}$$

$$\begin{aligned}
& *b^4*c^4*d^3*f*g*1 + 3*b^4*c^4*d^3*e*g*m - 3*a^4*b*c^3*g*h^4*m + 3*a^2*b^6* \\
& e*f*g*m^3 + 3*a^2*b^6*d*f*h*m^3 - 3*a*b^6*c*e^3*j*m^2 + 24*a^4*c^4*d*f*h*k^ \\
& 3 + 24*a^2*c^6*d^3*f*h*k - 12*a^4*c^4*e*f*g*k^3 - 12*a^3*c^5*e*f*g^3*k - 12 \\
& *a^3*c^5*d*g^3*h*j - 12*a^3*c^5*d*f*g^3*1 - 12*a^3*c^5*d*e*g^3*m - 12*a^2*c \\
& ^6*d^3*g*h*j - 12*a^2*c^6*d^3*f*g*1 - 12*a^2*c^6*d^3*e*h*1 - 12*a^2*c^6*d^3 \\
& *e*g*m - 12*a*b^2*c^5*d^4*j*1 + 9*a^5*b*c^2*d*j*1^4 + 9*a^2*b*c^5*e^4*j*k - \\
& 3*a^4*b^3*c*d*j*1^4 - 3*a^4*b*c^3*e*j^4*k - 3*a^4*b*c^3*d*j^4*1 - 3*a*b^3* \\
& c^4*e^4*j*k - 24*a^4*c^4*d*e*f*1^3 - 24*a^2*c^6*d*e^3*f*1 - 12*a^5*b^2*c*e* \\
& g*m^4 - 12*a^5*b^2*c*d*h*m^4 + 12*a^3*c^5*d*e*h^3*j + 12*a^2*c^6*d*e^3*h*j \\
& + 12*a^2*c^6*d*e^3*g*k - 12*a*b^2*c^5*d^4*h*m + 9*a^5*b*c^2*f*g*1^4 - 9*a^5 \\
& *b*c^2*e*h*1^4 - 9*a^2*b*c^5*e^4*h*1 + 9*a^2*b*c^5*e^4*g*m + 6*a^4*b^3*c*e* \\
& h*1^4 + 6*a*b^3*c^4*e^4*h*1 - 3*b^3*c^5*d^3*e*g*j - 3*b^3*c^5*d^3*e*f*k - 3 \\
& *a^4*b^3*c*f*g*1^4 - 3*a^4*b*c^3*g*h*j^4 - 3*a^3*b*c^4*g^4*h*j - 3*a^3*b*c^ \\
& 4*f*g^4*1 - 3*a^3*b*c^4*e*g^4*m - 3*a*b^3*c^4*e^4*g*m + 12*a^3*c^5*e*f*g*h^ \\
& 3 + 12*a^2*c^6*e^3*f*g*h - 3*b^3*c^5*d^3*f*g*h - 12*a^3*c^5*d*e*f*j^3 - 12* \\
& a^2*c^6*d*e*f^3*j - 3*a*b^6*c*d^2*g*1^3 - 15*a^5*b*c^2*d*e*m^4 + 15*a^4*b^3 \\
& *c*d*e*m^4 + 9*a^4*b*c^3*e*f*k^4 - 9*a^4*b*c^3*d*g*k^4 + 3*a^3*b^4*c*d*f*1^ \\
& 4 - 3*a^3*b*c^4*d*h^4*j - 3*a^2*b*c^5*e*f^4*k - 3*a^2*b*c^5*d*f^4*1 + 3*a*b \\
& ^2*c^5*e^4*g*j + 3*a*b^2*c^5*e^4*f*k + 3*a*b^2*c^5*d*e^4*m - 9*a*b*c^6*d^3* \\
& e^2*1 + 3*b^2*c^6*d^3*e*f*g - 3*a^3*b*c^4*f*g*h^4 - 3*a^2*b*c^5*f^4*g*h + 1 \\
& 2*a^2*c^6*d*e*f*g^3 - 9*a*b*c^6*d^3*f^2*j + 3*a*b*c^6*d^2*e^3*k + 9*a^3*b*c \\
& ^4*d*e*j^4 - 3*a^2*b*c^5*e*f*g^4 - 9*a*b*c^6*d^3*e*h^2 + 3*a*b*c^6*d^2*f^3* \\
& g + 3*a*b*c^6*d*e^3*g^2 - 3*a^4*b^2*c^2*h^3*j^2*m + 12*a^4*b^2*c^2*g^3*j*m^ \\
& 2 - 3*a^4*b^2*c^2*f^2*k^3*m + 3*a^3*b^3*c^2*g^3*j^2*m - 9*a^3*b^4*c*f^2*j^2 \\
& *m^2 + 9*a^3*b^3*c^2*f^2*j^3*m - 6*a^3*b^3*c^2*f^3*j*m^2 - 6*a^3*b^2*c^3*f^ \\
& 3*j^2*m - 3*a^2*b^4*c^2*f^3*j^2*m - 27*a^4*b^2*c^2*d^2*k*m^3 - 27*a^3*b^2*c \\
& ^3*e^3*j*m^2 + 18*a^2*b^4*c^2*e^3*j*m^2 - 15*a^2*b^3*c^3*e^3*j^2*m + 12*a^4 \\
& *b^2*c^2*f^2*j*1^3 + 3*a^3*b^3*c^2*e^2*k^3*1 + 42*a^2*b^3*c^3*d^3*j*m^2 - 2 \\
& 7*a^2*b^2*c^4*d^3*j^2*m - 15*a^3*b^3*c^2*d^2*k*1^3 - 3*a^4*b^2*c^2*f*j^2*k^ \\
& 3 - 3*a^4*b^2*c^2*f*h^3*m^2 + 3*a^3*b^3*c^2*g^3*h*1^2 + 3*a^3*b^3*c^2*f^2*j \\
& *k^3 - 3*a^3*b^2*c^3*g^3*h^2*1 - 3*a^3*b^2*c^3*e^2*j^3*1 - 27*a^4*b^2*c^2*e \\
& ^2*h*m^3 + 12*a^3*b^2*c^3*f^3*h*1^2 + 3*a^3*b^3*c^2*f*g^3*m^2 - 3*a^2*b^4*c \\
& ^2*f^3*h*1^2 + 3*a^2*b^3*c^3*f^3*h^2*1 + 9*a^3*b^3*c^2*e*h^3*1^2 + 9*a^2*b^ \\
& 3*c^3*e^2*h^3*1 - 6*a^4*b^2*c^2*e*h^2*1^3 - 6*a^3*b^3*c^2*e^2*h*1^3 - 6*a^2 \\
& *b^3*c^3*e^3*h*1^2 - 6*a^2*b^2*c^4*e^3*h^2*1 + 3*a^2*b^3*c^3*d^2*j^3*k + 42 \\
& *a^3*b^3*c^2*d^2*g*m^3 - 27*a^4*b^2*c^2*d*g^2*m^3 - 27*a^2*b^2*c^4*d^3*h*1^ \\
& 2 - 15*a^2*b^3*c^3*e^3*f*m^2 + 12*a^3*b^2*c^3*e^2*h*k^3 + 3*a^3*b^3*c^2*e*h \\
& ^2*k^3 - 3*a^3*b^2*c^3*e*g^3*1^2 - 3*a^2*b^4*c^2*e^2*h*k^3 + 3*a^2*b^3*c^3* \\
& f^3*g*k^2 - 3*a^2*b^2*c^4*f^3*g^2*k - 27*a^3*b^2*c^3*d^2*g*1^3 - 27*a^2*b^2 \\
& *c^4*d^3*f*m^2 + 18*a^2*b^4*c^2*d^2*g*1^3 - 15*a^3*b^3*c^2*d*g^2*1^3 + 12*a \\
& ^2*b^2*c^4*e^3*g*k^2 - 3*a^3*b^2*c^3*e*h^2*j^3 + 3*a^2*b^3*c^3*e^2*h*j^3 + \\
& 3*a^2*b^3*c^3*e*f^3*1^2 - 3*a^2*b^2*c^4*d^2*h^3*k + 9*a^2*b^3*c^3*d*g^3*k^2 \\
& - 9*a*b^4*c^3*d^2*g^2*k^2 - 6*a^3*b^2*c^3*d*g^2*k^3 - 6*a^2*b^3*c^3*d^2*g* \\
& k^3 - 3*a^2*b^4*c^2*d*g^2*k^3 + 12*a^2*b^2*c^4*d^2*g*j^3 + 3*a^2*b^3*c^3*d* \\
& g^2*j^3 - 3*a^2*b^2*c^4*d*f^3*k^2 - 3*a^2*b^2*c^4*d*g^2*h^3 + 12*a^7*c*j*k* \\
& 1*m^3 - 3*b^7*c*d^3*k*1*m - 3*a^6*b*c*k^4*1*m - 3*a^6*b*c*j*k*1^4 - 3*a^6*b \\
& *c*g*1^4*m - 9*a^6*b*c*f*j*m^4 + 9*a^6*b*c*e*k*m^4 + 9*a^6*b*c*d*1*m^4 + 9* \\
& a^6*b*c*g*h*m^4 - 3*a*b^7*d*e*f*m^3 + 9*a*b*c^6*d^4*h*j - 9*a*b*c^6*d^4*g*k \\
& + 9*a*b*c^6*d^4*f*1 + 9*a*b*c^6*d^4*e*m + 12*a*c^7*d^3*e*f*g - 3*a*b*c^6*d \\
& *e^4*j - 3*a*b*c^6*e^4*f*g - 3*a*b*c^6*d*e*f^4 + 18*a^6*c^2*h^2*j*1*m^2 - 1 \\
& 8*a^6*c^2*h*j^2*1^2*m + 18*a^6*c^2*f*k^2*1^2*m + 36*a^5*c^3*e^2*k*1^2*m + 1 \\
& 8*a^6*c^2*g*j*k^2*m^2 + 18*a^6*c^2*e*k^2*1*m^2 + 18*a^5*c^3*g^2*j^2*k*m + 1 \\
& 8*a^6*c^2*e*j*1^2*m^2 + 18*a^6*c^2*d*k*1^2*m^2 - 18*a^5*c^3*e^2*j*1*m^2 - 1 \\
& 8*a^6*c^2*f*h*1^2*m^2 + 18*a^5*c^3*f^2*h*1^2*m - 36*a^5*c^3*f^2*h*k*m^2 - 3 \\
& 6*a^5*c^3*f^2*g*1*m^2 + 18*a^5*c^3*g^2*h*k*1^2 - 18*a^5*c^3*g*h^2*k^2*1 + 1 \\
& 8*a^5*c^3*f*h^2*k^2*m + 18*a^5*c^3*f*g^2*1^2*m + 18*a^5*c^3*e*j^2*k^2*1 + 1 \\
& 8*a^5*c^3*d*j^2*k^2*m - 18*a^4*c^4*d^2*j^2*k*m + 36*a^4*c^4*d^2*j*k^2*1 + 1 \\
& 8*a^5*c^3*f*g^2*k*m^2 + 18*a^5*c^3*e*g^2*1*m^2 + 18*a^5*c^3*d*j^2*k*1^2 - 1 \\
& 8*a^4*c^4*f^2*g^2*k*m + 36*a^4*c^4*d^2*h*k^2*m + 18*a^5*c^3*f*h*j^2*1^2 - 1
\end{aligned}$$

$$\begin{aligned}
& 8a^5c^3e^h^2jm^2 + 18a^5c^3d^h^2k^m^2 + 18a^4c^4f^2h^2j^1 - 1 \\
& 8a^4c^4e^2h^2jm - 18a^5c^3e^gk^2l^2 + 18a^5c^3d^hk^2l^2 + 1 \\
& 8a^4c^4e^2gk^2l + 18a^4c^4e^2fk^2m - 18a^4c^4d^2hk^2l^2 + 1 \\
& 8a^4c^4d^2f^2l^2m - 36a^4c^4e^2g^2j^1^2 - 36a^4c^4e^2fk^2l^2 - 3 \\
& 6a^4c^4d^2e^2l^2m + 18a^5c^3d^fk^2m^2 + 18a^4c^4f^2g^2jk^2 + 1 \\
& 8a^4c^4d^2g^2jm^2 - 18a^4c^4d^2fk^2m^2 + 18a^4c^4d^2e^2l^2m^2 - 1 \\
& 8a^4c^4fg^2j^2k + 18a^4c^4fg^2h^2m + 18a^4c^4e^2g^2j^2l + 1 \\
& 8a^4c^4e^2f^2k^2l - 18a^4c^4d^2g^2j^2m - 18a^4c^4d^2f^2k^2m + 1 \\
& 8a^3c^5d^2f^2k^m + 3a^4b^2c^2h^4k^m - 3a^3b^3c^2g^4l^m + 18a^4c^4e^2f^2j^1^2 + 18a^4c^4d^2h^2j^2k + 18a^4c^4d^2f^2k^2l^2 + 18a^4c^4d^2e^2k^2m^2 - 18a^3c^5e^2f^2j^1 + 12a^5b^2c^2g^2k^m^3 - 9a^5b^2c^2h^3j^m^2 - 9a^5b^2c^2f^2l^3m + 3a^5b^2c^2h^2k^3l + 3a^4b^3c^2h^3j^m^2 + 3a^4b^3c^2f^2l^3m - 18a^4c^4e^2fh^2m^2 + 18a^3c^5e^2f^2h^2m + 15a^5b^2c^2e^2l^2m^3 - 15a^4b^3c^2e^2l^2m^3 - 9a^5b^2c^2g^2k^2l^3 - 9a^4b^3c^3g^3j^2m - 3a^5b^2c^2g^2k^2l^3 + 3a^5b^2c^2h^2j^3l^2 + 3a^4b^3c^2g^2k^2l^3 - 3a^3b^4c^2g^3j^m^2 + 36a^4c^4e^2f^2g^2m^2 + 36a^4c^4d^2f^2h^2m^2 + 18a^4c^4e^2g^2h^2k^2 - 18a^4c^4d^2g^2h^2l^2 - 18a^4c^4d^2f^2j^2k^2 + 18a^3c^5e^2g^2h^2k + 18a^3c^5e^2f^2g^2m - 18a^3c^5d^2g^2h^2l + 18a^3c^5d^2f^2j^2k + 18a^3c^5d^2f^2h^2m + 18a^3c^5d^2e^2j^2l - 12a^2b^2c^4e^4k^m + 9a^4b^3c^2f^2j^3m^2 - 9a^4b^2c^2f^2j^4m - 6a^5b^2c^2f^2j^2m^3 + 6a^5b^2c^2f^2j^2m^3 - 6a^5b^2c^2f^2j^3m^2 - 6a^4b^3c^2f^2j^3m^3 + 6a^4b^3c^3f^3j^m^2 - 6a^4b^3c^3f^2j^3m + 6a^2b^3c^3f^4j^m + 3a^3b^2c^3g^4j^1 + 3a^2b^5c^3f^3j^m^2 - 3a^2b^3c^3f^4k^1 - 36a^3c^5d^2e^2jk^2 - 18a^4c^4d^2fg^2m^2 + 18a^3c^5e^2f^2g^2l + 18a^3c^5d^2f^2g^2m + 18a^3c^5d^2e^2j^2k + 18a^3b^4c^2d^2k^m^3 + 15a^3b^2c^4e^3j^2m + 12a^5b^2c^2d^2k^2m^3 - 9a^5b^2c^2f^2j^2l^3 - 9a^4b^3c^3e^2k^3l + 3a^5b^2c^2e^2k^3l^2 + 3a^4b^3c^3f^2j^2l^3 + 3a^4b^3c^3g^2j^3k - 3a^3b^4c^2f^2j^1^3 + 3a^3b^2c^3g^4h^m + 3a^2b^5c^2e^3j^2m - 36a^3c^5d^2f^2hk^2 - 21a^3b^2c^4d^3j^m^2 - 21a^2b^5c^2d^3j^m^2 + 18a^3c^5e^2f^2hk^2 - 18a^3c^5e^2f^2h^2j + 18a^3c^5d^2f^2h^2k + 18a^2b^4c^3d^3j^2m + 15a^4b^3c^3d^2k^2l^3 - 9a^5b^2c^2d^2k^2l^3 - 9a^4b^3c^3g^3h^2l^2 - 9a^4b^3c^3f^2j^2k^3 + 3a^4b^3c^3d^2k^2l^3 + 3a^2b^5c^2d^2k^2l^3 - 18a^3c^5d^2e^2g^2l^2 + 18a^3c^5d^2e^2hk^2 + 18a^3b^4c^2e^2h^2m^3 - 18a^2c^6d^2e^2hk^2 + 18a^2c^6d^2e^2g^2l + 18a^2c^6d^2e^2f^2m + 15a^5b^2c^2e^2h^2m^3 - 15a^4b^3c^2e^2h^2m^3 - 9a^4b^3c^3fg^3m^2 - 9a^3b^2c^4f^3h^2l + 3a^4b^2c^2e^2jk^4 + 3a^4b^3c^3g^2h^3k^2 + 3a^3b^2c^4f^2g^3m + 36a^3c^5d^2e^2f^2l^2 + 18a^3c^5d^2fg^2j^2 + 18a^2c^6d^2f^2g^2j + 18a^2c^6d^2e^2f^2l - 9a^3b^2c^3e^2h^4l - 9a^3b^2c^4d^2j^3k + 6a^4b^3c^3e^2h^2l^3 - 6a^4b^3c^3e^2h^3l^2 + 6a^3b^2c^4e^3h^2l^2 - 6a^3b^2c^4e^2h^3l + 3a^4b^2c^2f^2hk^4 + 3a^4b^3c^3d^2j^3k^2 - 3a^3b^4c^2e^2h^2l^3 + 3a^2b^5c^2e^2h^2l^3 + 3a^2b^2c^4f^4hk^2 + 3a^2b^2c^4f^4g^2l + 3a^2b^5c^2e^3h^2l^2 - 3a^2b^4c^3e^3h^2l - 21a^4b^3c^3d^2g^2m^3 - 21a^2b^5c^2d^2g^2m^3 + 18a^3b^4c^2d^2g^2m^3 + 18a^2c^6d^2e^2f^2k + 18a^2b^4c^3d^3h^2l^2 + 15a^3b^2c^4e^3f^2m^2 + 15a^2b^3c^5d^3h^2l - 15a^2b^3c^4d^3h^2l - 9a^4b^3c^3e^2h^2k^3 - 9a^3b^2c^4f^3g^2k^2 - 9a^2b^3c^5e^3f^2m + 3a^3b^2c^4f^2h^3j + 3a^2b^5c^2e^3f^2m^2 + 3a^2b^3c^4e^3f^2m + 18a^2b^4c^3d^3f^2m^2 + 15a^4b^3c^3d^2g^2l^3 + 12a^2b^2c^5d^3f^2m - 9a^3b^2c^4e^2h^2j^3 - 9a^3b^2c^4e^2f^3l^2 - 9a^2b^3c^5e^3g^2k + 3a^3b^2c^4fg^3j^2 + 3a^2b^5c^2d^2g^2l^3 + 3a^2b^3c^5e^2f^3l - 3a^2b^4c^3e^3g^2k^2 + 3a^2b^3c^4e^3g^2k + 18a^2c^6d^2e^2g^2h^2 - 18a^2c^6d^2e^2g^2h - 12a^4b^2c^2d^2f^2l^4 - 9a^2b^2c^4d^2g^4k + 9a^2b^3c^4d^2g^3k + 6a^3b^3c^2d^2g^2k^4 + 6a^3b^3c^4d^2g^2k^3 - 6a^3b^3c^4d^2g^3k^2 + 6a^2b^3c^5d^3g^2k^2 - 6a^2b^3c^5d^2g^3k - 6a^2b^3c^4d^3g^2k^2 - 6a^2b^2c^5d^3g^2k - 3a^3b^3c^2e^2fk^4 + 3a^3b^2c^3e^2g^2j^4 + 3a^3b^2c^3d^2h^2j^4 + 3a^2b^5c^2d^2g^2k^3 + 15a^2b^3c^5d^3e^2l^2 - 15a^2b^3c^4d^3e^2l^2 - 9a^3b^2c^4d^2g^2j^3 - 9a^2b^3c^5e^3f^2j^2 - 3a^2b^4c^3d^2g^2j^3 + 3a^2b^3c^4e^3f^2j^2 - 3a^2b^2c^5e^3f^2j + 12a^2b^2c^5d^
\end{aligned}$$



$$\begin{aligned}
& 3*f*j^2 - 9*a^2*b*c^5*d*e^3*k^2 + 3*a^2*b*c^5*e^2*g^3*h + 3*a*b^3*c^4*d*e^3 \\
& *k^2 - 9*a^2*b*c^5*d^2*g*h^3 - 3*a^2*b^3*c^3*d*e*j^4 + 3*a^2*b*c^5*e*f^3*h^2 \\
& + 3*a*b^3*c^4*d^2*g*h^3 + 3*a^2*b^2*c^4*d*f*h^4 - 9*a^7*c*k^2*l^2*m^2 - 6 \\
& *a^6*c^2*j^2*k^3*m - 3*a^6*b^2*h*l^2*m^3 + 3*a^5*b^3*h^2*l*m^3 - 6*a^6*c^2* \\
& g^2*k*m^3 - 6*a^6*c^2*h*k^3*l^2 + 6*a^5*c^3*h^3*j^2*m + 6*a^6*c^2*g*k^2*l^3 \\
& - 6*a^6*c^2*f*k^3*m^2 - 6*a^5*c^3*h^2*j^3*l - 6*a^5*c^3*g^3*j*m^2 + 6*a^5* \\
& c^3*f^2*k^3*m + 3*a^5*b^3*g*k^2*m^3 - 3*a^4*b^4*g^2*k*m^3 + 12*a^6*c^2*f*j^ \\
& 2*m^3 + 12*a^4*c^4*f^3*j^2*m + 3*a^5*b^3*e*l^2*m^3 + 3*a^3*b^5*e^2*l*m^3 - \\
& 6*a^6*c^2*d*k^2*m^3 - 6*a^5*c^3*f^2*j*l^3 + 6*a^5*c^3*d^2*k*m^3 - 6*a^5*c^3 \\
& *g*j^3*k^2 + 6*a^4*c^4*e^3*j*m^2 - 3*b^6*c^2*d^3*j^2*m - 3*a^4*b^4*f*j^2*m^ \\
& 3 + 3*a^3*b^5*f^2*j*m^3 + 6*a^5*c^3*f*j^2*k^3 + 6*a^5*c^3*f*h^3*m^2 - 6*a^5 \\
& *c^3*e*j^3*l^2 + 6*a^4*c^4*g^3*h^2*l - 6*a^4*c^4*f^2*h^3*m + 6*a^4*c^4*e^2* \\
& j^3*l + 6*a^3*c^5*d^3*j^2*m - 3*a^4*b^4*d*k^2*m^3 - 3*a^2*b^6*d^2*k*m^3 + 6 \\
& *a^5*c^3*e^2*h*m^3 - 6*a^4*c^4*g^2*h^3*k - 6*a^4*c^4*f^3*h*l^2 + 12*a^5*c^3 \\
& *e*h^2*l^3 + 12*a^3*c^5*e^3*h^2*l - 3*b^6*c^2*d^3*h*l^2 + 3*b^5*c^3*d^3*h^2 \\
& *l - 3*a^5*b^2*c*j^4*m^2 + 3*a^3*b^5*e*h^2*m^3 - 3*a^2*b^6*e^2*h*m^3 + 6*a^ \\
& 5*c^3*d*g^2*m^3 - 6*a^4*c^4*e^2*h*k^3 - 6*a^4*c^4*f*h^3*j^2 + 6*a^4*c^4*e*g \\
& ^3*l^2 + 6*a^3*c^5*f^3*g^2*k - 6*a^3*c^5*e^2*g^3*l + 6*a^3*c^5*d^3*h*l^2 - \\
& 3*b^6*c^2*d^3*f*m^2 - 3*b^4*c^4*d^3*f^2*m + 6*a^4*c^4*d^2*g*l^3 + 6*a^4*c^4 \\
& *e*h^2*j^3 - 6*a^4*c^4*d*h^3*k^2 - 6*a^3*c^5*f^2*g^3*j - 6*a^3*c^5*e^3*g*k^ \\
& 2 + 6*a^3*c^5*d^3*f*m^2 + 6*a^3*c^5*d^2*h^3*k - 6*a^2*c^6*d^3*f^2*m + 4*a^5 \\
& *b^2*c*h^3*m^3 + 3*b^5*c^3*d^3*g*k^2 - 3*b^4*c^4*d^3*g^2*k - 3*a^2*b^6*d*g^ \\
& 2*m^3 + a^5*b*c^2*j^3*k^3 + 12*a^4*c^4*d*g^2*k^3 + 12*a^2*c^6*d^3*g^2*k + 6 \\
& *a^5*b*c^2*h^3*l^3 + 5*a^5*b*c^2*g^3*m^3 - 5*a^4*b^3*c*g^3*m^3 + 3*b^5*c^3* \\
& d^3*e*l^2 + 3*b^3*c^5*d^3*e^2*l - 3*a^5*b^2*c*h^2*l^4 + a^4*b^3*c*h^3*l^3 + \\
& 12*a^5*b^2*c*f^2*m^4 - 6*a^3*c^5*d^2*g*j^3 + 6*a^3*c^5*d*f^3*k^2 + 6*a^3*b \\
& ^4*c*f^3*m^3 + 6*a^2*c^6*e^3*f^2*j - 6*a^2*c^6*d^2*f^3*k - 3*b^4*c^4*d^3*f* \\
& j^2 + 3*b^3*c^5*d^3*f^2*j - 3*a^2*b^2*c^4*f^5*m - 7*a^4*b*c^3*e^3*m^3 - 7*a \\
& ^2*b^5*c*e^3*m^3 + 6*a^4*b*c^3*g^3*k^3 - 6*a^3*c^5*e*g^3*h^2 - 6*a^2*c^6*d^ \\
& 3*f*j^2 + 5*a^4*b*c^3*f^3*l^3 + a^4*b*c^3*h^3*j^3 + a^2*b^5*c*f^3*l^3 + 6*a \\
& ^3*c^5*d*g^2*h^3 - 6*a^2*c^6*e^2*f^3*h - 3*a^3*b^4*c*e^2*l^4 - 3*a*b^4*c^3* \\
& e^4*l^2 - 7*a^3*b*c^4*d^3*l^3 - 7*a*b^5*c^2*d^3*l^3 + 6*a^3*b*c^4*f^3*j^3 + \\
& 5*a^3*b*c^4*e^3*k^3 + 3*b^3*c^5*d^3*e*h^2 - 3*b^2*c^6*d^3*e^2*h + a*b^5*c^ \\
& 2*e^3*k^3 + 12*a*b^2*c^5*d^4*k^2 - 6*a^2*c^6*d*f^3*g^2 + 6*a*b^4*c^3*d^3*k^ \\
& 3 - 3*a^4*b^2*c^2*d*k^5 + a^3*b*c^4*g^3*h^3 + 5*a^2*b*c^5*d^3*j^3 - 5*a*b^3 \\
& *c^4*d^3*j^3 - 9*a*c^7*d^2*e^2*f^2 + 6*a^2*b*c^5*e^3*h^3 - 3*a*b^2*c^5*e^4* \\
& h^2 + a^2*b*c^5*f^3*g^3 + a*b^3*c^4*e^3*h^3 + 4*a*b^2*c^5*d^3*h^3 - 3*a*b^2 \\
& *c^5*d^2*g^4 - 6*a^7*c*j*l^3*m^2 + 6*a^7*c*h*l^2*m^3 + 6*a^6*c^2*j*k^4*l + \\
& 6*a^6*c^2*h*k^4*m - 6*a^5*c^3*h^4*k*m + 3*a^6*b^2*h*k*m^4 + 3*a^6*b^2*g*l*m \\
& ^4 - 3*b^5*c^3*d^4*l*m - 6*a^6*c^2*g*j*l^4 - 6*a^6*c^2*f*k*l^4 - 6*a^6*c^2* \\
& d*l^4*m + 6*a^5*c^3*h*j^4*k + 6*a^5*c^3*g*j^4*l + 6*a^5*c^3*f*j^4*m - 6*a^4 \\
& *c^4*g^4*j*l + 6*a^3*c^5*e^4*k*m + 6*a^5*b^3*f*j*m^4 - 6*a^4*c^4*g^4*h*m + \\
& 3*b^7*c*d^3*j*m^2 - 3*a^5*b^3*e*k*m^4 - 3*a^5*b^3*d*l*m^4 + 3*b^4*c^4*d^4*j \\
& *l - 3*a^5*b^3*g*h*m^4 - 6*a^5*c^3*e*j*k^4 + 6*a^2*c^6*d^4*j*l + 3*b^4*c^4* \\
& d^4*h*m + 6*a^6*c^2*e*g*m^4 + 6*a^6*c^2*d*h*m^4 + 6*a^6*b*c*j^3*m^3 - 6*a^5 \\
& *c^3*f*h*k^4 + 6*a^4*c^4*g*h^4*j + 6*a^4*c^4*f*h^4*k + 6*a^4*c^4*e*h^4*l + \\
& 6*a^4*c^4*d*h^4*m - 6*a^3*c^5*f^4*h*k - 6*a^3*c^5*f^4*g*l + 6*a^2*c^6*d^4*h \\
& *m + 3*a^5*b*c^2*j^5*m + a^6*b*c*k^3*l^3 + 3*a^4*b^4*e*g*m^4 + 3*a^4*b^4*d* \\
& h*m^4 + 6*b^3*c^5*d^4*g*k - 3*b^3*c^5*d^4*h*j - 3*b^3*c^5*d^4*f*l - 3*b^3*c \\
& ^5*d^4*e*m + 3*a*b^7*d^2*g*m^3 + 6*a^5*c^3*d*f*l^4 - 6*a^4*c^4*e*g*j^4 - 6* \\
& a^4*c^4*d*h*j^4 + 6*a^3*c^5*e*g^4*j + 6*a^3*c^5*d*g^4*k - 6*a^2*c^6*e^4*g*j \\
& - 6*a^2*c^6*e^4*f*k - 6*a^2*c^6*d*e^4*m + 3*a^4*b*c^3*h^5*l + 6*a^3*c^5*f* \\
& g^4*h - 3*a^3*b^5*d*e*m^4 + 3*b^2*c^6*d^4*e*j + 3*a^5*b*c^2*g*k^5 + 3*a^3*b \\
& *c^4*g^5*k + 8*a*b^6*c*d^3*m^3 + 3*b^2*c^6*d^4*f*h - 3*a^5*b^2*c*e*l^5 - 3* \\
& a*b^2*c^5*e^5*l - 6*a^3*c^5*d*f*h^4 + 6*a^2*c^6*e*f^4*g + 6*a^2*c^6*d*f^4*h \\
& + 3*a^4*b*c^3*f*j^5 + 3*a^2*b*c^5*f^5*j + 6*a*c^7*d^3*e^2*h - 6*a*c^7*d^2* \\
& e^3*g + 3*a^3*b*c^4*e*h^5 + 6*a*b*c^6*d^3*g^3 + 3*a^2*b*c^5*d*g^5 + a*b*c^6 \\
& *e^3*f^3 - 9*a^6*c^2*j^2*k^2*l^2 - 9*a^6*c^2*h^2*k^2*m^2 - 9*a^6*c^2*g^2*l^ \\
& 2*m^2 - 18*a^5*c^3*f^2*j^2*m^2 - 9*a^5*c^3*h^2*j^2*k^2 - 9*a^5*c^3*g^2*j^2*
\end{aligned}$$

$$\begin{aligned}
& 1^2 - 9a^5c^3f^2k^2l^2 - 9a^5c^3e^2k^2m^2 - 9a^5c^3d^2l^2m^2 \\
& - 9a^5c^3g^2h^2m^2 - 9a^4c^4e^2j^2k^2 - 9a^4c^4d^2j^2l^2 - \\
& 18a^4c^4e^2h^2l^2 - 9a^4c^4g^2h^2j^2 - 9a^4c^4f^2h^2k^2 - 9a^4c^4f^2g^2l^2 - 9a^4c^4e^2g^2m^2 - 9a^4c^4d^2h^2m^2 - 18a^3c^5d^2g^2k^2 - 9a^3c^5e^2g^2j^2 - 9a^3c^5e^2f^2k^2 - 9a^3c^5d^2h^2j^2 - 9a^3c^5d^2f^2l^2 - 9a^3c^5d^2e^2m^2 - 3a^4b^2c^2h^4l^2 - 18a^4b^2c^2f^3m^3 + 12a^3b^2c^3f^4m^2 - 9a^3c^5f^2g^2h^2 + 4a^4b^2c^2g^3l^3 - 3a^2b^4c^2f^4m^2 + 14a^3b^3c^2e^3m^3 - 5a^3b^3c^2f^3l^3 - 3a^4b^2c^2g^2k^4 - 3a^3b^2c^3g^4k^2 + a^3b^3c^2g^3k^3 - 20a^2b^4c^2d^3m^3 - 18a^3b^2c^3e^3l^3 + 16a^3b^2c^3d^3m^3 + 12a^4b^2c^2e^2l^4 + 12a^2b^2c^4e^4l^2 - 9a^2c^6d^2e^2j^2 + 6a^2b^4c^2e^3l^3 + 4a^3b^2c^3f^3k^3 + 14a^2b^3c^3d^3l^3 - 9a^2c^6e^2f^2g^2 - 9a^2c^6d^2f^2h^2 - 5a^2b^3c^3e^3k^3 - 3a^3b^2c^3f^2j^4 - 3a^2b^2c^4f^4j^2 + a^2b^3c^3f^3j^3 - 18a^2b^2c^4d^3k^3 + 12a^3b^2c^3d^2k^4 + 4a^2b^2c^4e^3j^3 - 3a^2b^4c^2d^2k^4 - 3a^2b^2c^4e^2h^4 + 6a^7c^*k^*l^4m - 3a^7b^*k^*l^4m - 6a^7c^*h^*k^*m^4 - 6a^7c^*g^*l^4m + 3a^6b^*c^*h^*l^5 - 6a^*c^7d^4e^*j - 6a^*c^7d^4f^*h - 3b^*c^7d^4e^*f + 6a^*c^7d^4e^4f + 3a^*b^*c^6e^5h - a^5b^2c^*j^3l^3 - a^3b^4c^*g^3l^3 - a^*b^4c^3e^3j^3 - a^*b^2c^5e^3g^3 + 3a^7b^*j^*m^5 + 6a^7c^*f^*m^5 + 6a^*c^7d^5k + 3b^*c^7d^5g - 3a^6c^2j^4m^2 - 3a^6b^2j^2m^4 + 2a^6c^2j^3l^3 + a^5b^3j^3m^3 - 2a^6c^2h^3m^3 - 3a^6c^2h^2l^4 - 3a^5c^3h^4l^2 - a^*b^6c^*e^3l^3 + 20a^5c^3f^3m^3 - 15a^6c^2f^2m^4 - 15a^4c^4f^4m^2 + 2a^5c^3h^3k^3 - 2a^5c^3g^3l^3 + a^3b^5g^3m^3 - 3a^5c^3g^2k^4 - 3a^4c^4g^4k^2 - 3a^4b^4f^2m^4 + 20a^4c^4e^3l^3 - 15a^5c^3e^2l^4 - 15a^3c^5e^4l^2 + 2a^4c^4g^3j^3 - 2a^4c^4f^3k^3 - 2a^4c^4d^3m^3 - 3b^4c^4d^4k^2 - 3a^4c^4f^2j^4 - 3a^3c^5f^4j^2 + 20a^3c^5d^3k^3 - 15a^4c^4d^2k^4 - 15a^2c^6d^4k^2 - 2a^3c^5e^3j^3 + b^5c^3d^3j^3 + 2a^3c^5f^3h^3 - 3a^3c^5e^2h^4 - 3a^2c^6e^4h^2 - 3b^2c^6d^4g^2 + 2a^2c^6e^3g^3 - 2a^2c^6d^3h^3 + b^3c^5d^3g^3 - 3a^2c^6d^2g^4 - a^4b^2c^2h^3k^3 - a^3b^2c^3g^3j^3 - a^2b^4c^2f^3k^3 - a^2b^2c^4f^3h^3 + 2a^7c^*k^3m^3 + a^7b^*l^3m^3 - 3a^7c^*j^2m^4 + 6a^3c^5f^5m - 3a^6b^2f^m^5 + 6a^6c^2e^1l^5 + 6a^2c^6e^5l + b^7c^*d^3l^3 + a^*b^7e^3m^3 - 3b^2c^6d^5k + 6a^5c^3d^*k^5 - 3a^*c^7d^4g^2 + 2a^*c^7d^3f^3 + b^*c^7d^3e^3 - a^6b^2k^3m^3 - a^4b^4h^3m^3 - a^2b^6f^3m^3 - b^6c^2d^3k^3 - b^4c^4d^3h^3 - b^2c^6d^3f^3 - b^8d^3m^3 - a^6c^2k^6 - a^5c^3j^6 - a^4c^4h^6 - a^3c^5g^6 - a^2c^6f^6 - a^7c^*l^6 - a^*c^7e^6 - a^8m^6 - c^8d^6, z, k1)*(root(34992a^4b^2c^8z^6 - 8748a^3b^4c^7z^6 + 729a^2b^6c^6z^6 - 46656a^5c^9z^6 + 34992a^4b^3c^6mz^5 - 8748a^3b^5c^5mz^5 + 729a^2b^7c^4mz^5 - 34992a^4b^2c^7jz^5 + 8748a^3b^4c^6jz^5 - 729a^2b^6c^5jz^5 - 46656a^5b^*c^7mz^5 + 46656a^5c^8jz^5 + 34992a^5b^*c^6jmmz^4 - 11664a^5b^*c^6k^*l^z^4 + 3888a^4b^*c^7fjz^4 + 3888a^4b^*c^7e^*k^*z^4 + 3888a^4b^*c^7d^*l^z^4 + 3888a^4b^*c^7g^*h^*z^4 + 3888a^3b^*c^8d^*e^*z^4 + 243a^*b^5c^6d^*e^*z^4 - 25272a^4b^3c^5jmmz^4 + 9720a^4b^3c^5k^*l^z^4 + 6075a^3b^5c^4jmmz^4 - 2673a^3b^5c^4k^*l^z^4 - 486a^2b^7c^3jmmz^4 + 243a^2b^7c^3k^*l^z^4 - 7776a^4b^2c^6h^*k^*z^4 - 7776a^4b^2c^6g^*l^z^4 - 7776a^4b^2c^6f^*m^z^4 + 2430a^3b^4c^5h^*k^*z^4 + 2430a^3b^4c^5g^*l^z^4 + 2430a^3b^4c^5f^*m^z^4 - 243a^2b^6c^4h^*k^*z^4 - 243a^2b^6c^4g^*l^z^4 - 243a^2b^6c^4f^*m^z^4 - 1944a^3b^3c^6f^*j^z^4 - 1944a^3b^3c^6e^*k^*z^4 - 1944a^3b^3c^6d^*l^z^4 + 243a^2b^5c^5f^*j^z^4 + 243a^2b^5c^5e^*k^*z^4 + 243a^2b^5c^5d^*l^z^4 - 1944a^3b^3c^6g^*h^*z^4 + 243a^2b^5c^5g^*h^*z^4 + 3888a^3b^2c^7e^*g^*z^4 + 3888a^3b^2c^7d^*h^*z^4 - 486a^2b^4c^6e^*g^*z^4 - 486a^2b^4c^6d^*h^*z^4 - 1944a^2b^3c^7d^*e^*z^4 + 7776a^5c^7h^*k^*z^4 + 7776a^5c^7g^*l^z^4 + 7776a^5c^7f^*m^z^4 - 7776a^4c^8e^*g^*z^4 - 776a^4c^8d^*h^*z^4 - 13608a^5b^2c^5m^2z^4 + 11421a^4b^4c^4m^2z^4 - 2916a^3b^6c^3m^2z^4 + 243a^2b^8c^2m^2z^4 + 13608a^4b^2c^6j^2z^4 - 3159a^3b^4c^5j^2z^4 + 243a^2b^6c^4j^2z^4 + 1944a^3b^2c^
\end{aligned}$$

$$\begin{aligned}
& ^7f^2z^4 - 243a^2b^4c^6f^2z^4 - 3888a^6c^6m^2z^4 - 19440a^5c^7 \\
& *j^2z^4 - 3888a^4c^8f^2z^4 + 3078a^4b^4c^3k^1mz^3 - 2592a^5b^2 \\
& *c^4k^1mz^3 - 891a^3b^6c^2k^1mz^3 - 4536a^4b^3c^4j^1k^1z^3 + 1 \\
& 053a^3b^5c^3j^1k^1z^3 - 81a^2b^7c^2j^1k^1z^3 - 2592a^4b^3c^4h^1k^1 \\
& *mz^3 - 2592a^4b^3c^4g^1mz^3 + 810a^3b^5c^3h^1k^1mz^3 + 810a^3b \\
& ^5c^3g^1mz^3 - 81a^2b^7c^2h^1k^1mz^3 - 81a^2b^7c^2g^1mz^3 + 77 \\
& 76a^4b^2c^5f^1j^1mz^3 + 3888a^4b^2c^5h^1j^1k^1z^3 + 3888a^4b^2c^5g^1 \\
& j^1z^3 - 3888a^4b^2c^5f^1k^1z^3 - 2916a^3b^4c^4f^1j^1mz^3 + 1458a^3 \\
& b^4c^4f^1k^1z^3 - 972a^3b^4c^4h^1j^1k^1z^3 - 972a^3b^4c^4g^1j^1z^3 \\
& - 486a^3b^4c^4e^1k^1mz^3 - 486a^3b^4c^4d^1mz^3 + 324a^2b^6c^3f^1 \\
& j^1mz^3 - 162a^2b^6c^3f^1k^1z^3 + 81a^2b^6c^3h^1j^1k^1z^3 + 81a^2b \\
& ^6c^3g^1j^1z^3 + 81a^2b^6c^3e^1k^1mz^3 + 81a^2b^6c^3d^1mz^3 - 48 \\
& 6a^3b^4c^4g^1h^1mz^3 + 81a^2b^6c^3g^1h^1mz^3 + 648a^3b^3c^5e^1j^1k^1 \\
& z^3 + 648a^3b^3c^5d^1j^1z^3 - 81a^2b^5c^4e^1j^1k^1z^3 - 81a^2b^5c^4 \\
& d^1j^1z^3 + 2592a^3b^3c^5e^1g^1mz^3 + 2592a^3b^3c^5d^1h^1mz^3 - 1296 \\
& a^3b^3c^5f^1h^1k^1z^3 - 1296a^3b^3c^5f^1g^1z^3 - 1296a^3b^3c^5e^1h^1 \\
& l^1z^3 + 648a^3b^3c^5g^1h^1j^1z^3 - 324a^2b^5c^4e^1g^1mz^3 - 324a^2b^5 \\
& c^4d^1h^1mz^3 + 162a^2b^5c^4f^1h^1k^1z^3 + 162a^2b^5c^4f^1g^1z^3 + 16 \\
& 2a^2b^5c^4e^1h^1z^3 - 81a^2b^5c^4g^1h^1j^1z^3 + 5184a^3b^2c^6d^1e^1m \\
& z^3 - 2592a^3b^2c^6e^1g^1j^1z^3 - 2592a^3b^2c^6d^1h^1j^1z^3 - 2106a^2b \\
& ^4c^5d^1e^1mz^3 + 1296a^3b^2c^6e^1f^1k^1z^3 + 1296a^3b^2c^6d^1g^1k^1z^3 \\
& + 1296a^3b^2c^6d^1f^1z^3 + 324a^2b^4c^5e^1g^1j^1z^3 + 324a^2b^4c^5d^1 \\
& h^1j^1z^3 - 162a^2b^4c^5e^1f^1k^1z^3 - 162a^2b^4c^5d^1g^1k^1z^3 - 162a^2 \\
& b^4c^5d^1f^1z^3 + 1296a^3b^2c^6f^1g^1h^1z^3 - 162a^2b^4c^5f^1g^1h^1z^3 \\
& + 1944a^2b^3c^6d^1e^1j^1z^3 - 1296a^2b^2c^7d^1e^1f^1z^3 + 81a^2b^8c^1k^1 \\
& m^2z^3 + 6480a^5b^1c^5j^1k^1z^3 + 2592a^5b^1c^5h^1k^1mz^3 + 2592a^5b \\
& ^1c^5g^1mz^3 - 1296a^4b^1c^6e^1j^1k^1z^3 - 1296a^4b^1c^6d^1j^1z^3 - 5184 \\
& a^4b^1c^6e^1g^1mz^3 - 5184a^4b^1c^6d^1h^1mz^3 + 2592a^4b^1c^6f^1h^1k^1z^3 \\
& + 2592a^4b^1c^6f^1g^1z^3 + 2592a^4b^1c^6e^1h^1z^3 - 1296a^4b^1c^6g^1h^1 \\
& j^1z^3 + 243a^1b^6c^4d^1e^1mz^3 - 3888a^3b^1c^7d^1e^1j^1z^3 - 243a^1b^5c^5 \\
& d^1e^1j^1z^3 + 162a^1b^4c^6d^1e^1f^1z^3 - 2592a^6c^5k^1mz^3 - 5184a^5c^6 \\
& h^1j^1k^1z^3 - 5184a^5c^6g^1j^1z^3 - 5184a^5c^6f^1j^1mz^3 + 2592a^5c^6 \\
& f^1k^1z^3 + 2592a^5c^6e^1k^1mz^3 + 2592a^5c^6d^1mz^3 + 2592a^5c^6 \\
& g^1h^1mz^3 + 5184a^4c^7e^1g^1j^1z^3 + 5184a^4c^7d^1h^1j^1z^3 - 2592a^4c^7 \\
& e^1f^1k^1z^3 - 2592a^4c^7d^1g^1k^1z^3 - 2592a^4c^7d^1f^1z^3 - 2592a^4c^7 \\
& d^1e^1mz^3 - 2592a^4c^7f^1g^1h^1z^3 + 2592a^3c^8d^1e^1f^1z^3 + 6480a^5b^2 \\
& c^4j^1m^2z^3 + 6480a^4b^3c^4j^2mz^3 - 5022a^4b^4c^3j^1m^2z^3 - \\
& 1296a^3b^5c^3j^2mz^3 + 1134a^3b^6c^2j^1m^2z^3 + 81a^2b^7c^2j^1 \\
& ^2mz^3 + 2592a^4b^3c^4h^1l^2z^3 - 1944a^4b^2c^5h^2l^1z^3 - 810a^3 \\
& b^5c^3h^1l^2z^3 + 729a^3b^4c^4h^2l^1z^3 + 81a^2b^7c^2h^1l^2z^3 - \\
& 81a^2b^6c^3h^2l^1z^3 - 5184a^4b^3c^4f^1m^2z^3 + 1620a^3b^5c^3f^1 \\
& m^2z^3 + 1296a^3b^3c^5f^2mz^3 - 162a^2b^7c^2f^1m^2z^3 - 162a^2 \\
& b^5c^4f^2mz^3 - 1944a^4b^2c^5g^1k^2z^3 + 729a^3b^4c^4g^1k^2z^3 \\
& - 648a^3b^3c^5g^2k^1z^3 - 81a^2b^6c^3g^1k^2z^3 + 81a^2b^5c^4g^1 \\
& ^2k^1z^3 - 1944a^4b^2c^5e^1l^2z^3 + 729a^3b^4c^4e^1l^2z^3 + 648a^3b \\
& ^2c^6e^2l^1z^3 - 81a^2b^6c^3e^1l^2z^3 - 81a^2b^4c^5e^2l^1z^3 + 1 \\
& 296a^3b^3c^5f^1j^2z^3 - 1296a^3b^2c^6f^2j^1z^3 - 162a^2b^5c^4f^1 \\
& j^2z^3 + 162a^2b^4c^5f^2j^1z^3 - 648a^3b^3c^5d^1k^2z^3 + 81a^2b^5 \\
& c^4d^1k^2z^3 + 648a^3b^2c^6e^1h^2z^3 - 81a^2b^4c^5e^1h^2z^3 - 64 \\
& 8a^2b^2c^7d^2g^1z^3 - 10368a^5b^1c^5j^2mz^3 - 81a^2b^8c^1j^1m^2z^3 \\
& - 2592a^5b^1c^5h^1l^2z^3 + 5184a^5b^1c^5f^1m^2z^3 - 2592a^4b^1c^6f^1 \\
& ^2mz^3 + 1296a^4b^1c^6g^2k^1z^3 - 2592a^4b^1c^6f^1j^2z^3 + 1296a^4b^1 \\
& c^6d^1k^2z^3 + 81a^1b^4c^6d^2g^1z^3 + 2592a^6c^5j^1m^2z^3 + 1296a^5c^6 \\
& h^2l^1z^3 + 1296a^5c^6g^1k^2z^3 + 1296a^5c^6e^1l^2z^3 - 1296a^4c^7 \\
& e^2l^1z^3 + 2592a^4c^7f^2j^1z^3 - 2592a^6b^1c^4m^3z^3 - 324a^3b^1 \\
& ^7c^1m^3z^3 - 27a^2b^8c^1l^3z^3 - 1296a^4c^7e^1h^2z^3 - 864a^5b^1c^5 \\
& k^3z^3 + 1296a^3c^8d^2g^1z^3 + 432a^4b^1c^6h^3z^3 + 27a^1b^4c^6e^1 \\
& ^3z^3 - 432a^2b^1c^8d^3z^3 + 216a^1b^3c^7d^3z^3 + 1134a^4b^5c^2m^1 \\
& ^3z^3 - 432a^5b^3c^3m^3z^3 + 1512a^5b^2c^4l^3z^3 - 1107a^4b^4c^
\end{aligned}$$

$$\begin{aligned}
& c^3 l^3 z^3 + 297 a^3 b^6 c^2 l^3 z^3 + 864 a^4 b^3 c^4 k^3 z^3 - 270 a^3 b^5 c^3 k^3 z^3 + 27 a^2 b^7 c^2 k^3 z^3 - 2592 a^4 b^2 c^5 j^3 z^3 + 486 a^3 b^4 c^4 j^3 z^3 - 27 a^2 b^6 c^3 j^3 z^3 - 216 a^3 b^3 c^5 h^3 z^3 + 27 a^2 b^5 c^4 h^3 z^3 + 216 a^3 b^2 c^6 g^3 z^3 - 27 a^2 b^4 c^5 g^3 z^3 - 216 a^2 b^2 c^7 e^3 z^3 - 432 a^6 c^5 l^3 z^3 + 27 a^2 b^9 m^3 z^3 + 4320 a^5 c^6 j^3 z^3 - 432 a^4 c^7 g^3 z^3 + 432 a^3 c^8 e^3 z^3 - 27 b^5 c^6 d^3 z^3 + 81 a^3 b^6 c^j k^l m^z^2 - 1296 a^5 b^c^4 h^j k^m z^2 - 1296 a^5 b^c^4 g^j l^m z^2 + 1296 a^5 b^c^4 f^k l^m z^2 - 81 a^2 b^7 c^f k^l m^z^2 + 2592 a^4 b^c^5 e^g^j m^z^2 + 2592 a^4 b^c^5 d^h^j m^z^2 - 1296 a^4 b^c^5 f^h^j k^z^2 - 1296 a^4 b^c^5 f^g^j l^z^2 - 1296 a^4 b^c^5 e^f^k m^z^2 - 1296 a^4 b^c^5 d^f^l m^z^2 - 648 a^4 b^c^5 e^h^j l^z^2 - 648 a^4 b^c^5 e^g^k l^z^2 - 648 a^4 b^c^5 d^h^k l^z^2 - 648 a^4 b^c^5 d^g^k m^z^2 - 1296 a^4 b^c^5 f^g^h m^z^2 - 162 a^4 b^c^3 d^e^j m^z^2 + 81 a^4 b^c^3 d^e^k l^z^2 + 1296 a^3 b^c^6 d^e^f m^z^2 - 648 a^3 b^c^6 d^f^g k^z^2 - 648 a^3 b^c^6 d^e^h k^z^2 - 648 a^3 b^c^6 d^e^g l^z^2 - 81 a^4 b^c^5 d^e^h k^z^2 - 81 a^4 b^c^5 d^e^g l^z^2 + 81 a^4 b^c^5 d^e^f m^z^2 - 81 a^4 b^c^5 d^e^f j^z^2 + 81 a^4 b^c^5 d^e^g h^z^2 + 648 a^5 b^2 c^3 j^k l^m z^2 - 567 a^4 b^4 c^2 j^k l^m z^2 - 1944 a^4 b^3 c^3 f^k l^m z^2 + 729 a^3 b^5 c^2 f^k l^m z^2 + 648 a^4 b^3 c^3 h^j k^m z^2 + 648 a^4 b^3 c^3 g^j l^m z^2 - 81 a^3 b^5 c^2 h^j k^m z^2 - 81 a^3 b^5 c^2 g^j l^m z^2 + 1944 a^4 b^2 c^4 f^j k^l z^2 - 729 a^3 b^4 c^3 f^j k^l z^2 + 648 a^4 b^2 c^4 e^j k^m z^2 + 648 a^4 b^2 c^4 d^j l^m z^2 - 81 a^3 b^4 c^3 e^j k^m z^2 - 81 a^3 b^4 c^3 d^j l^m z^2 + 81 a^2 b^6 c^2 f^j k^l z^2 + 1296 a^4 b^2 c^4 f^h k^m z^2 + 1296 a^4 b^2 c^4 f^g l^m z^2 + 648 a^4 b^2 c^4 g^h j^m z^2 - 648 a^3 b^4 c^3 f^h k^m z^2 - 648 a^3 b^4 c^3 f^g l^m z^2 - 324 a^4 b^2 c^4 g^h k^l z^2 - 324 a^4 b^2 c^4 e^h l^m z^2 + 81 a^3 b^4 c^3 g^h k^l z^2 - 81 a^3 b^4 c^3 g^h j^m z^2 + 81 a^2 b^6 c^2 f^h k^m z^2 + 81 a^2 b^6 c^2 f^g l^m z^2 - 1296 a^3 b^3 c^4 e^g^j m^z^2 - 1296 a^3 b^3 c^4 d^h^j m^z^2 + 648 a^3 b^3 c^4 f^h^j k^z^2 + 648 a^3 b^3 c^4 f^g^j l^z^2 + 648 a^3 b^3 c^4 e^f^k m^z^2 + 648 a^3 b^3 c^4 d^f^l m^z^2 + 486 a^3 b^3 c^4 e^g^k l^z^2 + 486 a^3 b^3 c^4 d^h^k l^z^2 + 162 a^3 b^3 c^4 e^h^j l^z^2 + 162 a^3 b^3 c^4 d^g^k m^z^2 + 162 a^2 b^5 c^3 e^g^j m^z^2 + 162 a^2 b^5 c^3 d^h^j m^z^2 - 81 a^2 b^5 c^3 f^h^j k^z^2 - 81 a^2 b^5 c^3 f^g^j l^z^2 - 81 a^2 b^5 c^3 e^g^k l^z^2 - 81 a^2 b^5 c^3 e^f^k m^z^2 - 81 a^2 b^5 c^3 d^h^k l^z^2 - 81 a^2 b^5 c^3 d^f^l m^z^2 + 648 a^3 b^3 c^4 f^g^h m^z^2 - 81 a^2 b^5 c^3 f^g^h m^z^2 - 3240 a^3 b^2 c^5 d^e^j m^z^2 + 1620 a^3 b^2 c^5 d^e^k l^z^2 + 1377 a^2 b^4 c^4 d^e^j m^z^2 - 648 a^3 b^2 c^5 e^f^j k^z^2 - 648 a^3 b^2 c^5 d^f^j l^z^2 - 648 a^2 b^4 c^4 d^e^k l^z^2 - 324 a^3 b^2 c^5 d^g^j k^z^2 + 81 a^2 b^4 c^4 e^f^j k^z^2 + 81 a^2 b^4 c^4 d^f^j l^z^2 + 972 a^3 b^2 c^5 e^f^h l^z^2 - 648 a^3 b^2 c^5 f^g^h j^z^2 - 324 a^3 b^2 c^5 e^g^h k^z^2 - 324 a^3 b^2 c^5 d^g^h l^z^2 - 162 a^2 b^4 c^4 e^f^h l^z^2 + 81 a^2 b^4 c^4 f^g^h j^z^2 + 81 a^2 b^4 c^4 e^g^h k^z^2 + 81 a^2 b^4 c^4 d^g^h l^z^2 - 648 a^2 b^3 c^5 d^e^f m^z^2 + 486 a^2 b^3 c^5 d^e^h k^z^2 + 486 a^2 b^3 c^5 d^e^g l^z^2 + 162 a^2 b^3 c^5 d^f^g k^z^2 + 648 a^2 b^2 c^6 d^e^g h^z^2 - 324 a^2 b^2 c^6 d^e^g h^z^2 - 1296 a^6 b^c^3 k^l m^2 z^2 - 81 a^4 b^5 c^k^l m^2 z^2 - 1296 a^5 b^c^4 j^2 k^l z^2 - 324 a^5 b^c^4 h^2 l^m z^2 + 324 a^5 b^c^4 h^k^2 l^z^2 - 324 a^5 b^c^4 g^k^2 m^z^2 + 972 a^5 b^c^4 h^j l^2 z^2 + 324 a^5 b^c^4 g^k l^2 z^2 - 324 a^5 b^c^4 e^l^2 m^z^2 - 324 a^4 b^c^5 e^2 l^m z^2 - 1944 a^5 b^c^4 f^j m^2 z^2 + 1296 a^5 b^c^4 e^k m^2 z^2 + 1296 a^5 b^c^4 d^l m^2 z^2 + 648 a^4 b^c^5 f^2 j^m z^2 + 81 a^2 b^7 c^f j^m^2 z^2 + 1296 a^5 b^c^4 g^h m^2 z^2 - 324 a^4 b^c^5 g^2 j^k z^2 + 324 a^4 b^c^5 g^2 h^l z^2 + 972 a^4 b^c^5 f^h^2 l^z^2 + 324 a^4 b^c^5 g^h^2 k^z^2 - 324 a^4 b^c^5 e^h^2 m^z^2 - 324 a^4 b^c^5 d^j^k^2 z^2 - 324 a^3 b^c^6 d^2 j^k z^2 + 972 a^4 b^c^5 f^g^k^2 z^2 + 972 a^3 b^c^6 d^2 g^m z^2 + 324 a^4 b^c^5 e^h^k^2 z^2 + 324 a^3 b^c^6 d^2 h^l z^2 + 81 a^4 b^5 c^4 d^2 g^m z^2 + 972 a^4 b^c^5 e^f^l^2 z^2 + 324 a^4 b^c^5 d^g^l^2 z^2 - 324 a^3 b^c^6 e^2 h^j z^2 + 324 a^3 b^c^6 e^2 g^k z^2 - 324 a^3 b^c^6 e^2 f^l z^2 - 1296 a^4 b^c^5 d^e^m^2 z^2 + 81 a^4 b^7 c^2 d^e^m^2 z^2 - 324 a^3 b^c^6 d^g^2 j^z^2 - 81 a^4 b^c^5 d^2 g^j z^2 + 81 a^4 b^c^5 d^2 e^l z^2 + 324 a^3 b^c^6 e^g^2 h^z^2 + 81 a^4 b^c^5 d^e^2 k^z^2 + 1296 a^3 b^c^6 d^e^j^2 z^2 - 324 a^
\end{aligned}$$

$$\begin{aligned}
& ^3b^*c^6*e^*f^*h^2*z^2 + 324*a^3*b^*c^6*d^*g^*h^2*z^2 + 81*a^*b^5*c^4*d^*e^*j^2*z^2 \\
& - 324*a^2*b^*c^7*d^2*f^*g^*z^2 + 324*a^2*b^*c^7*d^2*e^*h^*z^2 + 81*a^*b^3*c^6*d^2 \\
& *f^*g^*z^2 - 81*a^*b^3*c^6*d^2*e^*h^*z^2 + 324*a^2*b^*c^7*d^2*e^*g^*z^2 - 81*a^*b^3* \\
& c^6*d^2*e^*g^*z^2 + 1296*a^6*c^4*j^*k^*l^*m^*z^2 - 1296*a^5*c^5*f^*j^*k^*l^*z^2 - 129 \\
& 6*a^5*c^5*e^*j^*k^*m^*z^2 - 1296*a^5*c^5*d^*j^*l^*m^*z^2 - 1296*a^5*c^5*g^*h^*j^*m^*z^2 \\
& + 1296*a^5*c^5*e^*h^*l^*m^*z^2 + 1296*a^4*c^6*e^*f^*j^*k^*z^2 + 1296*a^4*c^6*d^*g^*j \\
& *k^*z^2 + 1296*a^4*c^6*d^*f^*j^*l^*z^2 - 1296*a^4*c^6*d^*e^*k^*l^*z^2 + 1296*a^4*c^6 \\
& *d^*e^*j^*m^*z^2 + 1296*a^4*c^6*f^*g^*h^*j^*z^2 - 1296*a^4*c^6*e^*f^*h^*l^*z^2 - 1296*a \\
& ^3*c^7*d^2*e^*f^*j^*z^2 + 648*a^5*b^3*c^2*k^*l^*m^2*z^2 + 648*a^4*b^3*c^3*j^2*k^*l^* \\
& z^2 + 486*a^5*b^2*c^3*h^*l^2*m^*z^2 - 81*a^4*b^4*c^2*h^*l^2*m^*z^2 + 81*a^4*b^3 \\
& *c^3*h^2*l^*m^*z^2 - 81*a^3*b^5*c^2*j^2*k^*l^*z^2 - 162*a^4*b^2*c^4*g^2*k^*m^*z^2 \\
& - 81*a^4*b^3*c^3*h^*k^2*l^*z^2 + 81*a^4*b^3*c^3*g^*k^2*m^*z^2 - 567*a^4*b^3*c^ \\
& 3*h^*j^*l^2*z^2 + 486*a^4*b^2*c^4*h^2*j^*l^*z^2 - 81*a^4*b^3*c^3*g^*k^*l^2*z^2 + \\
& 81*a^4*b^3*c^3*e^*l^2*m^*z^2 + 81*a^3*b^5*c^2*h^*j^*l^2*z^2 - 81*a^3*b^4*c^3*h^ \\
& 2*j^*l^*z^2 + 81*a^3*b^3*c^4*e^2*l^*m^*z^2 + 2430*a^4*b^3*c^3*f^*j^*m^2*z^2 - 226 \\
& 8*a^4*b^2*c^4*f^*j^2*m^*z^2 - 810*a^3*b^5*c^2*f^*j^*m^2*z^2 + 810*a^3*b^4*c^3*f \\
& *j^2*m^*z^2 - 648*a^4*b^3*c^3*e^*k^*m^2*z^2 - 648*a^4*b^3*c^3*d^*l^*m^2*z^2 - 64 \\
& 8*a^4*b^2*c^4*h^*j^2*k^*z^2 - 648*a^4*b^2*c^4*g^*j^2*l^*z^2 - 162*a^3*b^3*c^4*f \\
& ^2*j^*m^*z^2 + 81*a^3*b^5*c^2*e^*k^*m^2*z^2 + 81*a^3*b^5*c^2*d^*l^*m^2*z^2 + 81*a \\
& ^3*b^4*c^3*h^*j^2*k^*z^2 + 81*a^3*b^4*c^3*g^*j^2*l^*z^2 - 81*a^2*b^6*c^2*f^*j^2* \\
& m^*z^2 - 648*a^4*b^3*c^3*g^*h^*m^2*z^2 + 486*a^4*b^2*c^4*g^*j^*k^2*z^2 - 486*a^4 \\
& *b^2*c^4*e^*k^2*l^*z^2 + 486*a^3*b^2*c^5*d^2*k^*m^*z^2 - 162*a^4*b^2*c^4*d^*k^2* \\
& m^*z^2 + 81*a^3*b^5*c^2*g^*h^*m^2*z^2 - 81*a^3*b^4*c^3*g^*j^*k^2*z^2 + 81*a^3*b^ \\
& 4*c^3*e^*k^2*l^*z^2 + 81*a^3*b^3*c^4*g^2*j^*k^*z^2 - 81*a^2*b^4*c^4*d^2*k^*m^*z^2 \\
& + 486*a^4*b^2*c^4*e^*j^*l^2*z^2 - 486*a^4*b^2*c^4*d^*k^*l^2*z^2 - 162*a^3*b^2* \\
& c^5*e^2*j^*l^*z^2 - 81*a^3*b^4*c^3*e^*j^*l^2*z^2 + 81*a^3*b^4*c^3*d^*k^*l^2*z^2 - \\
& 81*a^3*b^3*c^4*g^2*h^*l^*z^2 - 1458*a^4*b^2*c^4*f^*h^*l^2*z^2 + 648*a^3*b^4*c^ \\
& 3*f^*h^*l^2*z^2 - 567*a^3*b^3*c^4*f^*h^2*l^*z^2 + 486*a^3*b^2*c^5*e^2*h^*m^*z^2 - \\
& 81*a^3*b^3*c^4*g^*h^2*k^*z^2 + 81*a^3*b^3*c^4*e^*h^2*m^*z^2 - 81*a^2*b^6*c^2*f \\
& *h^*l^2*z^2 + 81*a^2*b^5*c^3*f^*h^2*l^*z^2 - 81*a^2*b^4*c^4*e^2*h^*m^*z^2 - 1296 \\
& *a^4*b^2*c^4*e^*g^*m^2*z^2 - 1296*a^4*b^2*c^4*d^*h^*m^2*z^2 + 648*a^3*b^4*c^3*e \\
& *g^*m^2*z^2 + 648*a^3*b^4*c^3*d^*h^*m^2*z^2 + 81*a^3*b^3*c^4*d^*j^*k^2*z^2 - 81* \\
& a^2*b^6*c^2*e^*g^*m^2*z^2 - 81*a^2*b^6*c^2*d^*h^*m^2*z^2 + 81*a^2*b^3*c^5*d^2*j \\
& *k^*z^2 - 567*a^3*b^3*c^4*f^*g^*k^2*z^2 - 567*a^2*b^3*c^5*d^2*g^*m^*z^2 + 486*a^ \\
& 3*b^2*c^5*f^*g^2*k^*z^2 - 486*a^3*b^2*c^5*e^*g^2*l^*z^2 + 486*a^3*b^2*c^5*d^*g^2 \\
& *m^*z^2 - 81*a^3*b^3*c^4*e^*h^*k^2*z^2 + 81*a^2*b^5*c^3*f^*g^*k^2*z^2 - 81*a^2*b \\
& ^4*c^4*f^*g^2*k^*z^2 + 81*a^2*b^4*c^4*e^*g^2*l^*z^2 - 81*a^2*b^4*c^4*d^*g^2*m^*z^ \\
& 2 - 81*a^2*b^3*c^5*d^2*h^*l^*z^2 - 567*a^3*b^3*c^4*e^*f^*l^2*z^2 - 486*a^3*b^2* \\
& c^5*d^*h^2*k^*z^2 - 162*a^3*b^2*c^5*e^*h^2*j^*z^2 - 81*a^3*b^3*c^4*d^*g^*l^2*z^2 \\
& + 81*a^2*b^5*c^3*e^*f^*l^2*z^2 + 81*a^2*b^4*c^4*d^*h^2*k^*z^2 + 81*a^2*b^3*c^5* \\
& e^2*h^*j^*z^2 - 81*a^2*b^3*c^5*e^2*g^*k^*z^2 + 81*a^2*b^3*c^5*e^2*f^*l^*z^2 + 194 \\
& 4*a^3*b^3*c^4*d^*e^*m^2*z^2 - 729*a^2*b^5*c^3*d^*e^*m^2*z^2 + 648*a^3*b^2*c^5*e \\
& *g^*j^2*z^2 + 648*a^3*b^2*c^5*d^*h^*j^2*z^2 - 81*a^2*b^4*c^4*e^*g^*j^2*z^2 - 81* \\
& a^2*b^4*c^4*d^*h^*j^2*z^2 + 486*a^3*b^2*c^5*d^*f^*k^2*z^2 + 486*a^2*b^2*c^6*d^2 \\
& *g^*j^*z^2 - 486*a^2*b^2*c^6*d^2*e^*l^*z^2 - 162*a^2*b^2*c^6*d^2*f^*k^*z^2 - 81*a \\
& ^2*b^4*c^4*d^*f^*k^2*z^2 + 81*a^2*b^3*c^5*d^*g^2*j^*z^2 - 486*a^2*b^2*c^6*d^2*e^ \\
& *k^*z^2 - 81*a^2*b^3*c^5*e^*g^2*h^*z^2 - 648*a^2*b^3*c^5*d^*e^*j^2*z^2 - 162*a^2 \\
& *b^2*c^6*e^2*f^*h^*z^2 + 81*a^2*b^3*c^5*e^*f^*h^2*z^2 - 81*a^2*b^3*c^5*d^*g^*h^2* \\
& z^2 - 162*a^2*b^2*c^6*d^2*f^*g^2*z^2 - 189*a^5*b^3*c^2*l^3*m^*z^2 + 162*a^5*b^2 \\
& *c^3*k^3*m^*z^2 - 27*a^4*b^4*c^2*k^3*m^*z^2 - 702*a^4*b^3*c^3*j^3*m^*z^2 - 81* \\
& a^3*b^6*c^j^2*m^2*z^2 + 81*a^3*b^5*c^2*j^3*m^*z^2 - 54*a^5*b^3*c^2*j^*m^3*z^2 \\
& - 486*a^5*b^2*c^3*j^*l^3*z^2 + 216*a^4*b^4*c^2*j^*l^3*z^2 - 189*a^4*b^3*c^3* \\
& j^*k^3*z^2 - 54*a^4*b^2*c^4*h^3*m^*z^2 + 27*a^3*b^5*c^2*j^*k^3*z^2 + 27*a^3*b^ \\
& 3*c^4*g^3*m^*z^2 - 810*a^4*b^4*c^2*f^*m^3*z^2 + 540*a^5*b^2*c^3*f^*m^3*z^2 - 3 \\
& 24*a^3*b^2*c^5*f^3*m^*z^2 + 54*a^2*b^4*c^4*f^3*m^*z^2 + 675*a^4*b^3*c^3*f^*l^3 \\
& *z^2 - 243*a^3*b^5*c^2*f^*l^3*z^2 - 189*a^2*b^3*c^5*e^3*m^*z^2 + 27*a^3*b^3*c \\
& ^4*h^3*j^*z^2 - 486*a^4*b^2*c^4*f^*k^3*z^2 - 486*a^2*b^2*c^6*d^3*m^*z^2 + 216* \\
& a^3*b^4*c^3*f^*k^3*z^2 - 54*a^3*b^2*c^5*g^3*j^*z^2 - 27*a^2*b^6*c^2*f^*k^3*z^2 \\
& - 270*a^3*b^3*c^4*f^*j^3*z^2 - 54*a^2*b^3*c^5*f^3*j^*z^2 + 27*a^2*b^5*c^3*f^
\end{aligned}$$

$$\begin{aligned}
& j^3z^2 + 162a^2b^2c^6e^3jz^2 + 162a^3b^2c^5fh^3z^2 - 27a^2b^4c^4fh^3z^2 + 27a^2b^3c^5fg^3z^2 + 81ab^2c^7d^2e^2z^2 - 648 \\
& a^6c^4h^1^2mz^2 + 648a^5c^5g^2k^mz^2 - 648a^5c^5h^2j^1z^2 + 1296a^5c^5h^j^2k^z^2 + 1296a^5c^5g^j^2l^z^2 + 1296a^5c^5f^j^2m \\
& z^2 - 648a^5c^5g^j^2k^z^2 + 648a^5c^5e^k^2l^z^2 + 648a^5c^5d^k^2 \\
& mz^2 - 648a^4c^6d^2k^mz^2 - 648a^5c^5e^j^1^2z^2 + 648a^5c^5d^k \\
& l^2z^2 + 648a^4c^6e^2j^1z^2 + 324a^6b^c^3l^3mz^2 + 27a^4b^5c \\
& l^3mz^2 + 648a^5c^5fh^1^2z^2 - 648a^4c^6e^2h^mz^2 + 1512a^5b \\
& c^4j^3mz^2 + 1080a^6b^c^3j^m^3z^2 - 162a^4b^5c^j^m^3z^2 - 648 \\
& a^4c^6fg^2k^z^2 + 648a^4c^6e^g^2l^z^2 - 648a^4c^6d^g^2mz^2 - 2 \\
& 7a^3b^6c^j^1^3z^2 + 648a^4c^6e^h^2j^z^2 + 648a^4c^6d^h^2k^z^2 + \\
& 324a^5b^c^4j^k^3z^2 - 1296a^4c^6e^g^j^2z^2 - 1296a^4c^6d^h^j^2 \\
& z^2 - 108a^4b^c^5g^3mz^2 - 648a^4c^6d^f^k^2z^2 - 648a^3c^7d^2g \\
& j^z^2 + 648a^3c^7d^2f^k^z^2 + 648a^3c^7d^2e^1z^2 + 270a^3b^6c^f \\
& m^3z^2 + 648a^3c^7d^2e^2k^z^2 - 540a^5b^c^4f^1^3z^2 + 324a^3b^c \\
& ^6e^3mz^2 - 108a^4b^c^5h^3j^z^2 + 27a^2b^7c^f^1^3z^2 + 27a^b^5c \\
& ^4e^3mz^2 + 648a^3c^7e^2f^h^z^2 + 216a^b^4c^5d^3mz^2 + 648a^4 \\
& b^c^5f^j^3z^2 + 216a^3b^c^6f^3j^z^2 + 648a^3c^7d^f^g^2z^2 - 27a \\
& b^4c^5e^3j^z^2 + 324a^2b^c^7d^3j^z^2 - 189a^b^3c^6d^3j^z^2 - 10 \\
& 8a^3b^c^6f^g^3z^2 - 108a^2b^c^7e^3f^z^2 + 27a^b^3c^6e^3f^z^2 + \\
& 162a^b^2c^7d^3f^z^2 - 1134a^5b^2c^3j^2m^2z^2 + 648a^4b^4c^2j^ \\
& 2m^2z^2 + 81a^5b^2c^3k^2l^2z^2 + 162a^4b^2c^4f^2m^2z^2 + 81a \\
& ^4b^2c^4h^2k^2z^2 + 81a^4b^2c^4g^2l^2z^2 + 162a^3b^2c^5f^2j \\
& ^2z^2 + 81a^3b^2c^5e^2k^2z^2 + 81a^3b^2c^5d^2l^2z^2 + 81a^3b \\
& ^2c^5g^2h^2z^2 + 81a^2b^2c^6e^2g^2z^2 + 81a^2b^2c^6d^2h^2z^ \\
& 2 - 216a^6c^4k^3mz^2 + 216a^6c^4j^1^3z^2 + 27a^3b^7j^m^3z^2 + \\
& 216a^5c^5h^3mz^2 + 432a^6c^4f^m^3z^2 + 432a^4c^6f^3mz^2 - 27 \\
& b^6c^4d^3mz^2 - 27a^2b^8f^m^3z^2 + 216a^5c^5f^k^3z^2 + 216a^4c \\
& ^6g^3j^z^2 + 216a^3c^7d^3mz^2 + 216a^5b^4c^m^4z^2 - 216a^3c^7 \\
& e^3j^z^2 + 27b^5c^5d^3j^z^2 - 216a^4c^6f^h^3z^2 - 27b^4c^6d^3f \\
& z^2 - 216a^2c^8d^3f^z^2 - 648a^6c^4j^2m^2z^2 - 324a^6c^4k^2l \\
& ^2z^2 - 648a^5c^5f^2m^2z^2 - 324a^5c^5h^2k^2z^2 - 324a^5c^5g^ \\
& 2l^2z^2 - 648a^4c^6f^2j^2z^2 - 324a^4c^6e^2k^2z^2 - 324a^4c^6 \\
& d^2l^2z^2 - 405a^6b^2c^2m^4z^2 - 324a^4c^6g^2h^2z^2 - 324a^3c \\
& ^7e^2g^2z^2 - 324a^3c^7d^2h^2z^2 + 243a^4b^2c^4j^4z^2 - 27a^ \\
& 3b^4c^3j^4z^2 - 324a^2c^8d^2e^2z^2 + 27a^2b^2c^6f^4z^2 - 108 \\
& a^7c^3m^4z^2 - 27a^4b^6m^4z^2 - 540a^5c^5j^4z^2 - 108a^3c^7f^ \\
& 4z^2 - 216a^5b^c^3f^j^k^l^mz - 54a^3b^5c^f^j^k^l^mz + 27a^3b^5c \\
& g^h^k^l^mz - 27a^2b^6c^e^g^k^l^mz - 27a^2b^6c^d^h^k^l^mz + 432a^ \\
& 4b^c^4d^g^j^k^mz - 432a^4b^c^4d^e^k^l^mz + 216a^4b^c^4e^g^j^k^l^z \\
& + 216a^4b^c^4e^f^j^k^mz + 216a^4b^c^4d^h^j^k^l^z + 216a^4b^c^4d^ \\
& f^j^l^mz + 216a^4b^c^4f^g^h^j^mz - 27a^b^6c^2d^e^j^k^l^z - 27a^b^6 \\
& c^2d^e^h^k^mz - 27a^b^6c^2d^e^g^l^mz + 216a^3b^c^5d^e^h^j^k^z + 2 \\
& 16a^3b^c^5d^e^g^j^l^z - 216a^3b^c^5d^e^f^j^mz + 27a^b^5c^3d^e^h^j \\
& k^z + 27a^b^5c^3d^e^g^j^l^z + 27a^b^5c^3d^e^g^h^mz - 27a^b^4c^4d \\
& e^g^h^j^z + 27a^b^7c^d^e^k^l^mz + 270a^4b^3c^2f^j^k^l^mz - 108a^4 \\
& b^3c^2g^h^k^l^mz - 216a^4b^2c^3f^h^j^k^mz - 216a^4b^2c^3f^g^j^ \\
& l^mz - 216a^4b^2c^3e^g^k^l^mz - 216a^4b^2c^3d^h^k^l^mz + 162a^3 \\
& b^4c^2e^g^k^l^mz + 162a^3b^4c^2d^h^k^l^mz + 108a^4b^2c^3g^h^j^ \\
& k^l^z + 108a^4b^2c^3e^h^j^l^mz + 54a^3b^4c^2f^h^j^k^mz + 54a^3b \\
& ^4c^2f^g^j^l^mz - 27a^3b^4c^2g^h^j^k^l^z + 540a^3b^3c^3d^e^k^l^m \\
& z - 216a^2b^5c^2d^e^k^l^mz - 162a^3b^3c^3e^g^j^k^l^z - 162a^3b^ \\
& 3c^3d^h^j^k^l^z - 108a^3b^3c^3d^g^j^k^mz - 54a^3b^3c^3e^f^j^k^m \\
& z - 54a^3b^3c^3d^f^j^l^mz + 27a^2b^5c^2e^g^j^k^l^z + 27a^2b^5c^ \\
& 2d^h^j^k^l^z - 108a^3b^3c^3e^g^h^k^mz - 108a^3b^3c^3d^g^h^l^mz - \\
& 54a^3b^3c^3f^g^h^j^mz + 27a^2b^5c^2e^g^h^k^mz + 27a^2b^5c^2d \\
& g^h^l^mz - 540a^3b^2c^4d^e^j^k^l^z + 216a^2b^4c^3d^e^j^k^l^z - 21 \\
& 6a^3b^2c^4d^e^h^k^mz - 216a^3b^2c^4d^e^g^l^mz + 162a^2b^4c^3d \\
& e^h^k^mz + 162a^2b^4c^3d^e^g^l^mz + 108a^3b^2c^4e^g^h^j^k^z - 10
\end{aligned}$$

$$\begin{aligned}
& 8a^3b^2c^4efh*jlz + 108a^3b^2c^4d*gh*jlz + 108a^3b^2c^4d \\
& *f*g*k*lmz - 27a^2b^4c^3e*gh*jkz - 27a^2b^4c^3d*gh*jlz - 162* \\
& a^2b^3c^4d*efh*jkz - 162a^2b^3c^4d*ef*jlz + 54a^2b^3c^4d*ef \\
& *j*lmz - 108a^2b^3c^4d*ef*gh*lmz + 108a^2b^2c^5d*ef*gh*jlz + 324a \\
& ^6b*c^2*j*k*lm^2z - 81a^5b^3c*j*k*lm^2z + 27a^4b^4c*j^2*k*lmz \\
& - 27a^4b^4c*h*k^2*lmz - 27a^4b^4c*g*k*l^2*lmz + 216a^5b*c^3*h*j^2 \\
& *k*lmz + 216a^5b*c^3*g*j^2*lmz + 54a^4b^4c*f*k*lm^2z + 27a^4b^4* \\
& c*h*j*k*lm^2z + 27a^4b^4c*g*j*lm^2z + 27a^2b^6c*f^2*k*lmz + 216a \\
& ^5b*c^3*ek^2*lmz - 108a^5b*c^3*h*j*k^2*lmz + 27a^3b^5c*ek^2*lmz \\
& + 216a^5b*c^3*d*k*l^2*lmz + 216a^4b*c^4e^2*j*lmz - 108a^5b*c^3*g* \\
& j*k*l^2z + 27a^3b^5c*d*k*l^2*lmz - 324a^5b*c^3*ej*k*lm^2z - 324a^5* \\
& b*c^3*d*j*lm^2z - 216a^5b*c^3*f*h*l^2*lmz - 108a^4b*c^4f^2*j*k*lmz - \\
& 27a^3b^5c*ej*k*lm^2z - 27a^3b^5c*d*j*lm^2z - 324a^5b*c^3*gh*j* \\
& m^2z + 216a^5b*c^3*f*h*k*lm^2z + 216a^5b*c^3*f*g*lm^2z + 216a^5b*c \\
& ^3*eh*lm^2z - 216a^4b*c^4f^2*h*k*lmz - 216a^4b*c^4f^2*g*lmz - 27 \\
& *a^3b^5c*g*h*j*lm^2z + 216a^4b*c^4*eg^2*lmz - 108a^4b*c^4*g^2*h*j* \\
& lz - 216a^4b*c^4*f*h^2*j*lmz + 216a^4b*c^4*eh^2*j*lmz + 216a^4b*c^4 \\
& *d*h^2*k*lmz - 108a^4b*c^4*g*h^2*j*kz - 432a^4b*c^4*eg*j^2*lmz - 432* \\
& a^4b*c^4*d*h*j^2*lmz + 216a^4b*c^4*f*h*j^2*kz + 216a^4b*c^4*f*g*j^2*l \\
& *z + 27a^2b^6c*eg*j*lm^2z + 27a^2b^6c*d*h*j*lm^2z - 432a^3b*c^5*d^ \\
& 2*g*j*lmz - 216a^4b*c^4*f*g*j*k^2z + 216a^3b*c^5*d^2*f*k*lmz + 216a^3 \\
& *b*c^5*d^2*e*lmz - 108a^4b*c^4*eh*j*k^2z - 108a^4b*c^4*d*g*k^2*lmz \\
& - 108a^3b*c^5*d^2*h*j*lmz + 108a^3b*c^5*d^2*g*k*lmz - 54a*b^5c^3*d^2* \\
& g*j*lmz + 27a*b^5c^3*d^2*g*k*lmz + 27a*b^5c^3*d^2*e*lmz - 216a^4b*c \\
& ^4*ef*j*l^2z + 216a^3b*c^5*d*e^2*k*lmz - 108a^4b*c^4*d*g*j*l^2z - 10 \\
& 8a^3b*c^5*e^2*g*j*kz + 27a*b^5c^3*d*e^2*k*lmz + 324a^4b*c^4*d*ej*lm^ \\
& 2z + 216a^3b*c^5*e^2*f*h*lmz - 108a^4b*c^4*eg*h*l^2z + 108a^3b*c^5 \\
& *e^2*g*h*lmz + 108a^3b*c^5*ef^2*j*kz + 108a^3b*c^5*d*f^2*j*lmz + 27a \\
& *b^6c^2*d*ej^2*lmz - 216a^3b*c^5*ef^2*h*lmz + 108a^3b*c^5*f^2*g*h*j* \\
& z - 27a*b^4c^4*d^2*ej*lmz + 216a^3b*c^5*d*f*g^2*lmz - 108a^3b*c^5*ef \\
& g^2*h*jz + 54a*b^4c^4*d^2*f*g*lmz - 27a*b^4c^4*d^2*g*h*kz - 27a*b^4* \\
& c^4*d^2*eh*lmz - 27a*b^4c^4*d*e^2*j*kz - 108a^3b*c^5*d*g*h^2*jz + 54 \\
& *a*b^4c^4*d*e^2*h*lmz + 27a*b^6c^2*d*eh*l^2z - 27a*b^5c^3*d*eh^2*l* \\
& z - 27a*b^4c^4*d*e^2*g*lmz - 27a*b^4c^4*d*ef^2*lmz + 216a^2b*c^6*d^2 \\
& *f*g*jz - 108a^3b*c^5*d*eg*k^2z - 108a^2b*c^6*d^2*eh*jz + 108a^2* \\
& b*c^6*d^2*eg*kz - 54a*b^3c^5*d^2*f*g*jz - 27a*b^5c^3*d*eg*k^2z + 2 \\
& 7a*b^4c^4*d*eg^2*kz + 27a*b^3c^5*d^2*eh*jz - 27a*b^3c^5*d^2*eg*k \\
& *z - 108a^2b*c^6*d*e^2*g*jz + 27a*b^3c^5*d*e^2*g*jz - 108a^2b*c^6*d \\
& *ef^2*jz + 27a*b^3c^5*d*ef^2*jz - 432a^5c^4*eh*j*lmz + 432a^4c \\
& ^5*d*ej*k*lmz + 432a^4c^5*ef*h*j*lmz - 432a^4c^5*d*f*g*k*lmz - 27a*b \\
& ^7c*d*ej*lm^2z - 54a^5b^2c^2*j^2*k*lmz + 108a^5b^2c^2*h*k^2*lmz \\
& + 108a^5b^2c^2*g*k*l^2*lmz - 54a^5b^2c^2*h*j*l^2*lmz + 378a^4b^2c \\
& ^3*f^2*k*lmz - 270a^5b^2c^2*f*k*lm^2z - 189a^3b^4c^2*f^2*k*lmz \\
& - 108a^5b^2c^2*h*j*k*lm^2z - 108a^5b^2c^2*g*j*lm^2z - 54a^4b^3c^ \\
& 2*h*j^2*k*lmz - 54a^4b^3c^2*g*j^2*lmz - 162a^4b^3c^2*ek^2*lmz + \\
& 54a^4b^2c^3*g^2*j*k*lmz + 27a^4b^3c^2*h*j*k^2*lmz - 162a^4b^3c^2*d \\
& *k*l^2*lmz + 108a^4b^2c^3*g^2*h*lmz - 54a^3b^3c^3*e^2*j*lmz + 27* \\
& a^4b^3c^2*g*j*k*l^2z - 27a^3b^4c^2*g^2*h*lmz - 270a^4b^2c^3*f*j^ \\
& 2*k*lmz + 189a^4b^3c^2*ej*k*lm^2z + 189a^4b^3c^2*d*j*lm^2z - 162a \\
& ^4b^2c^3*ej^2*k*lmz - 162a^4b^2c^3*d*j^2*lmz + 135a^3b^3c^3*f^2* \\
& j*k*lmz + 108a^4b^2c^3*g*h^2*k*lmz + 54a^4b^3c^2*f*h*l^2*lmz - 54a^4 \\
& *b^2c^3*f*h^2*lmz + 54a^3b^4c^2*f*j^2*k*lmz - 27a^3b^4c^2*g*h^2*k* \\
& m*lmz + 27a^3b^4c^2*ej^2*k*lmz + 27a^3b^4c^2*d*j^2*lmz - 27a^2b^5* \\
& c^2*f^2*j*k*lmz - 270a^3b^2c^4*d^2*j*k*lmz + 189a^4b^3c^2*g*h*j*lm^2z \\
& - 162a^4b^2c^3*g*h*j^2*lmz + 162a^4b^2c^3*ej*k^2*lmz + 162a^3b^3* \\
& c^3*f^2*h*k*lmz + 162a^3b^3c^3*f^2*g*lmz - 54a^4b^3c^2*f*h*k*lm^2z \\
& - 54a^4b^3c^2*f*g*lm^2z - 54a^4b^3c^2*eh*lm^2z + 54a^4b^2c^3* \\
& d*j*k^2*lmz + 54a^2b^4c^3*d^2*j*k*lmz + 27a^3b^4c^2*g*h*j^2*lmz - 27* \\
& a^3b^4c^2*ej*k^2*lmz - 27a^2b^5c^2*f^2*h*k*lmz - 27a^2b^5c^2*f^2*g
\end{aligned}$$

$$\begin{aligned}
& *1*m*z + 162*a^4*b^2*c^3*d*j*k*l^2*z - 162*a^3*b^3*c^3*e*g^2*l*m*z + 108*a^4 \\
& 4*b^2*c^3*e*h*k^2*m*z + 108*a^3*b^2*c^4*d^2*h*l*m*z - 54*a^4*b^2*c^3*f*g*k^2 \\
& 2*m*z - 27*a^3*b^4*c^2*e*h*k^2*m*z - 27*a^3*b^4*c^2*d*j*k*l^2*z + 27*a^3*b^3 \\
& 3*c^3*g^2*h*j*l*z + 27*a^2*b^5*c^2*e*g^2*l*m*z - 27*a^2*b^4*c^3*d^2*h*l*m*z \\
& + 270*a^4*b^2*c^3*f*h*j*l^2*z - 270*a^3*b^2*c^4*e^2*h*j*m*z - 162*a^4*b^2*c^3 \\
& c^3*e*h*k*l^2*z - 162*a^3*b^3*c^3*d*h^2*k*m*z + 162*a^3*b^2*c^4*e^2*h*k*l*z \\
& + 108*a^4*b^2*c^3*d*g*l^2*m*z + 108*a^3*b^2*c^4*e^2*g*k*m*z - 54*a^4*b^2*c^3 \\
& e*f*l^2*m*z - 54*a^3*b^4*c^2*f*h*j*l^2*z + 54*a^3*b^3*c^3*f*h^2*j*l*z - 54*a^3 \\
& b^3*c^3*e*h^2*j*m*z + 54*a^3*b^2*c^4*e^2*f*l*m*z + 54*a^2*b^4*c^3*e^2 \\
& 2*h*j*m*z + 27*a^3*b^4*c^2*e*h*k*l^2*z - 27*a^3*b^4*c^2*d*g*l^2*m*z + 27*a^3 \\
& b^3*c^3*g*h^2*j*k*z + 27*a^2*b^5*c^2*d*h^2*k*m*z - 27*a^2*b^4*c^3*e^2*h*k \\
& *l*z - 27*a^2*b^4*c^3*e^2*g*k*m*z + 432*a^4*b^2*c^3*e*g*j*m^2*z + 432*a^4*b^2 \\
& c^3*d*h*j*m^2*z - 270*a^4*b^2*c^3*d*g*k*m^2*z - 216*a^3*b^4*c^2*e*g*j*m^2 \\
& 2*z - 216*a^3*b^4*c^2*d*h*j*m^2*z + 216*a^3*b^3*c^3*e*g*j^2*m*z + 216*a^3*b^3 \\
& c^3*d*h*j^2*m*z - 162*a^3*b^2*c^4*e*f^2*k*m*z - 162*a^3*b^2*c^4*d*f^2*l \\
& m*z - 108*a^3*b^2*c^4*f^2*h*j*k*z - 108*a^3*b^2*c^4*f^2*g*j*l*z + 54*a^4*b^2 \\
& c^3*e*f*k*m^2*z + 54*a^4*b^2*c^3*d*f*l*m^2*z + 54*a^3*b^4*c^2*d*g*k*m^2*z \\
& - 54*a^3*b^3*c^3*f*h*j^2*k*z - 54*a^3*b^3*c^3*f*g*j^2*l*z - 27*a^2*b^5*c^2 \\
& e*g*j^2*m*z - 27*a^2*b^5*c^2*d*h*j^2*m*z + 27*a^2*b^4*c^3*f^2*h*j*k*z + 27 \\
& a^2*b^4*c^3*f^2*g*j*l*z + 27*a^2*b^4*c^3*e*f^2*k*m*z + 27*a^2*b^4*c^3*d*f^2 \\
& 2*l*m*z + 324*a^2*b^3*c^4*d^2*g*j*m*z - 270*a^3*b^2*c^4*d*g^2*j*m*z - 162*a^3 \\
& b^2*c^4*f^2*g*h*m*z + 162*a^3*b^2*c^4*e*g^2*j*l*z - 162*a^2*b^3*c^4*d^2 \\
& e*l*m*z - 135*a^2*b^3*c^4*d^2*g*k*l*z + 108*a^3*b^2*c^4*d*g^2*k*l*z + 54*a^4 \\
& 4*b^2*c^3*f*g*h*m^2*z + 54*a^3*b^3*c^3*f*g*j*k^2*z - 54*a^3*b^2*c^4*f*g^2*j \\
& *k*z + 54*a^2*b^4*c^3*d*g^2*j*m*z - 54*a^2*b^3*c^4*d^2*f*k*m*z + 27*a^3*b^3 \\
& c^3*e*h*j*k^2*z + 27*a^3*b^3*c^3*d*g*k^2*l*z + 27*a^2*b^4*c^3*f^2*g*h*m*z \\
& - 27*a^2*b^4*c^3*e*g^2*j*l*z - 27*a^2*b^4*c^3*d*g^2*k*l*z + 27*a^2*b^3*c^4 \\
& d^2*h*j*l*z + 162*a^3*b^2*c^4*d*h^2*j*k*z - 162*a^2*b^3*c^4*d*e^2*k*m*z + 1 \\
& 08*a^3*b^2*c^4*e*g^2*h*m*z + 54*a^3*b^3*c^3*e*f*j*l^2*z + 27*a^3*b^3*c^3*d \\
& g*j*l^2*z - 27*a^2*b^4*c^3*e*g^2*h*m*z - 27*a^2*b^4*c^3*d*h^2*j*k*z + 27*a^2 \\
& b^3*c^4*e^2*g*j*k*z - 621*a^3*b^3*c^3*d*e*j*m^2*z + 594*a^3*b^2*c^4*d*e*e \\
& j^2*m*z + 243*a^2*b^5*c^2*d*e*j*m^2*z - 243*a^2*b^4*c^3*d*e*j^2*m*z + 135*a^3 \\
& b^3*c^3*e*g*h*l^2*z - 108*a^3*b^2*c^4*e*g*h^2*l*z + 108*a^3*b^2*c^4*d*g*h^2 \\
& m*z + 54*a^3*b^2*c^4*e*f*j^2*k*z + 54*a^3*b^2*c^4*e*f*h^2*m*z + 54*a^3*b^2 \\
& c^4*d*g*j^2*k*z + 54*a^3*b^2*c^4*d*f*j^2*l*z - 54*a^2*b^3*c^4*e^2*f*h*m \\
& z - 27*a^2*b^5*c^2*e*g*h*l^2*z + 27*a^2*b^4*c^3*e*g*h^2*l*z - 27*a^2*b^4*c^3 \\
& d*g*h^2*m*z - 27*a^2*b^3*c^4*e^2*g*h*l*z - 27*a^2*b^3*c^4*e*f^2*j*k*z - 2 \\
& 7*a^2*b^3*c^4*d*f^2*j*l*z + 162*a^2*b^2*c^5*d^2*e*j*l*z + 54*a^3*b^2*c^4*f \\
& g*h*j^2*z - 54*a^3*b^2*c^4*d*f*j*k^2*z + 54*a^2*b^3*c^4*e*f^2*h*l*z + 54*a^2 \\
& b^2*c^5*d^2*f*j*k*z - 27*a^2*b^3*c^4*f^2*g*h*j*z - 270*a^2*b^2*c^5*d^2*f \\
& g*m*z - 162*a^3*b^2*c^4*d*g*h*k^2*z + 162*a^2*b^2*c^5*d^2*g*h*k*z + 162*a^2 \\
& b^2*c^5*d^2*e^2*j*k*z + 108*a^2*b^2*c^5*d^2*e*h*m*z - 54*a^2*b^3*c^4*d*f*g^2 \\
& m*z + 27*a^2*b^4*c^3*d*g*h*k^2*z + 27*a^2*b^3*c^4*e*g^2*h*j*z + 270*a^3*b^2 \\
& c^4*d*e*h*l^2*z - 270*a^2*b^2*c^5*d^2*e^2*h*l*z - 162*a^2*b^4*c^3*d*e*h*l^2 \\
& z + 108*a^2*b^3*c^4*d*e*h^2*l*z + 108*a^2*b^2*c^5*d^2*e^2*g*m*z + 54*a^2*b^2 \\
& c^5*e^2*f*h*j*z + 27*a^2*b^3*c^4*d*g*h^2*j*z + 162*a^2*b^2*c^5*d*e*f^2*m*z \\
& - 54*a^3*b^2*c^4*d*e*f*m^2*z - 54*a^2*b^2*c^5*d^2*f^2*g*k*z + 135*a^2*b^3*c^4 \\
& d*e*g*k^2*z - 108*a^2*b^2*c^5*d^2*e*g^2*k*z + 54*a^2*b^2*c^5*d^2*f^2*g^2*j*z - \\
& 54*a^2*b^2*c^5*d^2*e*f^2*j^2*z - 9*a^5*b^7*c^d*e^1^3*z - 36*a^5*b^c^7*d^3*e^g^z - 1 \\
& 08*a^6*b^c^2*k^2*l^2*m*z + 27*a^5*b^3*c^k^2*l^2*m*z - 18*a^5*b^2*c^2*j^k^3 \\
& m*z - 27*a^4*b^3*c^2*j^3*k^1*z - 108*a^5*b^c^3*h^2*k^2*m*z - 108*a^5*b^c^3 \\
& g^2*l^2*m*z + 108*a^5*b^c^3*h^2*k^1^2*z + 108*a^5*b^c^3*g^2*k^m^2*z + 90*a^5 \\
& b^2*c^2*f^1^3*m*z - 18*a^5*b^2*c^2*h*k^1^3*z + 18*a^4*b^2*c^3*h^3*k^1*z + \\
& 18*a^4*b^2*c^3*h^3*j*m*z - 108*a^5*b^c^3*h^j^2*l^2*z + 18*a^4*b^3*c^2*f^k^3 \\
& m*z - 18*a^3*b^3*c^3*g^3*j*m*z - 9*a^4*b^3*c^2*g^k^3*l*z + 9*a^3*b^3*c^3 \\
& g^3*k^1*z + 252*a^4*b^2*c^3*f^j^3*m*z + 216*a^5*b^c^3*f^j^2*m^2*z + 180*a^3 \\
& b^2*c^4*f^3*j*m*z - 108*a^4*b^c^4*e^2*k^2*m*z - 108*a^4*b^c^4*d^2*l^2*m*z \\
& + 90*a^5*b^2*c^2*e^k^m^3*z + 90*a^5*b^2*c^2*d^1*m^3*z - 90*a^3*b^2*c^4*f^3 \\
& k^1*z + 54*a^3*b^5*c^f^j^2*m^2*z - 54*a^3*b^4*c^2*f^j^3*m*z + 36*a^5*b^2*c^
\end{aligned}$$



$$\begin{aligned}
& 2*f*j*m^3*z + 36*a^4*b^2*c^3*h*j^3*k*z + 36*a^4*b^2*c^3*g*j^3*l*z - 36*a^2*b^4*c^3*f^3*j*m*z - 27*a^2*b^6*c*f^2*j*m^2*z + 18*a^2*b^4*c^3*f^3*k*l*z - 2 \\
& 16*a^4*b*c^4*d^2*k*m^2*z + 108*a^5*b*c^3*d*k^2*m^2*z - 108*a^4*b^3*c^2*f*j \\
& l^3*z - 108*a^4*b*c^4*g^2*h^2*m*z + 108*a^2*b^3*c^4*e^3*j*m*z + 90*a^5*b^2*c^2*g*h*m^3*z + 54*a^4*b^3*c^2*e*k*l^3*z - 54*a^2*b^3*c^4*e^3*k*l*z + 234*a^2*b^2*c^5*d^3*j*m*z - 144*a^2*b^2*c^5*d^3*k*l*z + 90*a^4*b^2*c^3*f*j*k^3*z \\
& - 72*a^4*b^2*c^3*d*k^3*l*z + 27*a^4*b^3*c^2*g*h*l^3*z - 27*a^3*b^3*c^3*g*h^3*l*z - 18*a^3*b^4*c^2*f*j*k^3*z + 9*a^3*b^4*c^2*d*k^3*l*z + 216*a^4*b*c^4 \\
& f^2*h*l^2*z - 216*a^4*b*c^4*e^2*h*m^2*z + 108*a^4*b*c^4*g^2*h*k^2*z - 18*a^4*b^2*c^3*g*h*k^3*z + 18*a^3*b^2*c^4*g^3*h*k*z + 18*a^3*b^2*c^4*f*g^3*m*z \\
& + 9*a^3*b^4*c^2*g*h*k^3*z - 9*a^3*b^3*c^3*e*j^3*k*z - 9*a^3*b^3*c^3*d*j^3*l \\
& z - 144*a^4*b^3*c^2*e*g*m^3*z - 144*a^4*b^3*c^2*d*h*m^3*z - 108*a^3*b*c^5*e^2*g^2*m*z + 108*a^3*b*c^5*d^2*j^2*k*z - 108*a^3*b*c^5*d^2*h^2*m*z - 18*a^2*b^3*c^4*f^3*h*k*z - 18*a^2*b^3*c^4*f^3*g*l*z - 9*a^3*b^3*c^3*g*h*j^3*z - \\
& 216*a^4*b*c^4*d*g^2*m^2*z + 144*a^4*b^2*c^3*e*g*l^3*z - 126*a^3*b^2*c^4*d*h^3*l*z - 108*a^4*b*c^4*d*h^2*l^2*z - 108*a^3*b*c^5*f^2*g^2*k*z - 108*a^3*b*c^5 \\
& e^2*h^2*k*z - 90*a^2*b^2*c^5*e^3*f*m*z + 72*a^2*b^2*c^5*e^3*g*l*z - 63*a^3*b^4*c^2*e*g*l^3*z - 36*a^3*b^4*c^2*d*h*l^3*z + 27*a^2*b^4*c^3*d*h^3*l*z \\
& + 27*a*b^6*c^2*d^2*g*m^2*z - 18*a^4*b^2*c^3*d*h*l^3*z - 18*a^3*b^2*c^4*f*h^3*j*z - 18*a^3*b^2*c^4*e*h^3*k*z + 18*a^2*b^2*c^5*e^3*h*k*z + 108*a^3*b*c^5 \\
& e^2*h*j^2*z + 54*a^3*b^3*c^3*d*h*k^3*z + 27*a^3*b^3*c^3*e*g*k^3*z - 27*a^2*b^3*c^4*e*g^3*k*z + 27*a^2*b^3*c^4*d*g^3*l*z - 27*a*b^4*c^4*d^2*g^2*l*z - \\
& 9*a^2*b^5*c^2*e*g*k^3*z - 9*a^2*b^5*c^2*d*h*k^3*z + 207*a^3*b^4*c^2*d*e*m^3*z - 108*a^2*b*c^6*d^2*e^2*m*z - 90*a^4*b^2*c^3*d*e*m^3*z - 72*a^3*b^2*c^4 \\
& *e*g*j^3*z - 72*a^3*b^2*c^4*d*h*j^3*z + 27*a*b^3*c^5*d^2*e^2*m*z + 18*a^2*b^2*c^5*e*f^3*k*z + 18*a^2*b^2*c^5*d*f^3*l*z + 9*a^2*b^4*c^3*e*g*j^3*z + 9*a^2*b^4*c^3*d*h*j^3*z - 216*a^3*b*c^5*d*e^2*l^2*z - 198*a^3*b^3*c^3*d*e*l^3*z \\
& z + 108*a^3*b*c^5*d*g^2*j^2*z - 108*a^3*b*c^5*d*f^2*k^2*z + 72*a^2*b^5*c^2*d \\
& e*l^3*z - 27*a*b^5*c^3*d*e^2*l^2*z + 27*a*b^4*c^4*d^2*g*j^2*z + 18*a^2*b^2*c^5*f^3*g*h*z + 144*a^3*b^2*c^4*d*e*k^3*z - 63*a^2*b^4*c^3*d*e*k^3*z + 27 \\
& *a*b^4*c^4*d^2*e*k^2*z - 9*a^2*b^3*c^4*e*g*h^3*z - 108*a^2*b*c^6*d^2*g^2*h* \\
& z + 81*a^2*b^3*c^4*d*e*j^3*z + 27*a*b^3*c^5*d^2*g^2*h*z - 27*a*b^2*c^6*d^2* \\
& e^2*j*z - 18*a^2*b^2*c^5*d*g^3*h*z + 108*a^2*b*c^6*d*e^2*h^2*z - 27*a*b^3*c^5 \\
& d*e^2*h^2*z + 27*a*b^2*c^6*d^2*f^2*g*z - 18*a^2*b^2*c^5*d*e*h^3*z - 216* \\
& a^6*c^3*j^2*k*l*m*z + 216*a^6*c^3*h*j^2*m*z + 216*a^6*c^3*f*k*l*m^2*z - 2 \\
& 16*a^5*c^4*f^2*k*l*m*z - 216*a^5*c^4*g^2*j*k*m*z + 216*a^5*c^4*f*j^2*k*l*z \\
& + 216*a^5*c^4*f*h^2*l*m*z + 216*a^5*c^4*e*j^2*k*m*z + 216*a^5*c^4*d*j^2*l*m \\
& z + 216*a^5*c^4*g*h*j^2*m*z - 216*a^5*c^4*e*j*k^2*l*z - 216*a^5*c^4*d*j*k^2 \\
& m*z + 216*a^4*c^5*d^2*j*k*m*z - 18*a^6*b^2*c*k*l*m^3*z + 216*a^5*c^4*f*g*k^2 \\
& m*z - 216*a^5*c^4*d*j*k*l^2*z - 72*a^6*b*c^2*j^2*l^3*m*z + 18*a^5*b^3*c*j^2 \\
& *l^3*m*z - 216*a^5*c^4*f*h*j^2*l^2*z + 216*a^5*c^4*e*h*k^2*l^2*z + 216*a^5*c^4* \\
& e*f^2*l^2*m*z - 216*a^4*c^5*e^2*h*k^2*l^2*z + 216*a^4*c^5*e^2*h*j^2*m*z - 216*a^4*c^5 \\
& e^2*f^2*l^2*m*z - 216*a^5*c^4*e*f*k^2*m^2*z + 216*a^5*c^4*d*g*k^2*m^2*z - 216*a^5 \\
& c^4*d*f^2*l^2*m^2*z + 216*a^4*c^5*e*f^2*k^2*m^2*z + 216*a^4*c^5*d*f^2*l^2*m^2*z + 108 \\
& *a^5*b*c^3*j^3*k*l*z - 216*a^5*c^4*f*g*h^2*m^2*z + 216*a^4*c^5*f^2*g*h^2*m^2*z + \\
& 216*a^4*c^5*f*g^2*j*k^2*z - 216*a^4*c^5*e*g^2*j^2*l^2*z + 216*a^4*c^5*d*g^2*j^2*m^2 \\
& z - 72*a^6*b*c^2*h*k^2*m^3*z - 72*a^6*b*c^2*g^2*l^2*m^3*z + 54*a^5*b^3*c*h*k^2*m^3*z \\
& + 54*a^5*b^3*c*g^2*l^2*m^3*z - 216*a^4*c^5*d*h^2*j*k^2*z - 18*a^4*b^4*c*f^2*l^3*m^2 \\
& z + 9*a^4*b^4*c*h*k^2*l^3*z - 216*a^4*c^5*e*f^2*j^2*k^2*z - 216*a^4*c^5*e*f^2*h^2*m^2 \\
& z - 216*a^4*c^5*d*g^2*j^2*k^2*z - 216*a^4*c^5*d*f^2*j^2*l^2*z - 216*a^4*c^5*d*e*j^2 \\
& m^2*z - 72*a^5*b*c^3*f*k^3*m^2*z + 72*a^4*b*c^4*g^3*j^2*m^2*z + 36*a^5*b*c^3*g*k^3 \\
& l^2*z - 36*a^4*b*c^4*g^3*k^2*l^2*z - 216*a^4*c^5*f*g*h^2*j^2*z + 216*a^4*c^5*d*f^2 \\
& j*k^2*z - 216*a^3*c^6*d^2*f*j*k^2*z - 216*a^3*c^6*d^2*e*j^2*l^2*z + 72*a^4*b^4*c* \\
& f*j^2*m^3*z - 63*a^4*b^4*c*e*k^2*m^3*z - 63*a^4*b^4*c*d^2*l^2*m^3*z + 216*a^4*c^5*d \\
& *g*h*k^2*z - 216*a^3*c^6*d^2*g*h^2*k^2*z + 216*a^3*c^6*d^2*f*g^2*m^2*z - 216*a^3*c^6 \\
& d*e^2*j^2*k^2*z + 144*a^5*b*c^3*f*j^2*l^3*z - 144*a^3*b*c^5*e^3*j^2*m^2*z - 72*a^5*b \\
& c^3*e*k^2*l^3*z + 72*a^3*b*c^5*e^3*k^2*l^2*z - 63*a^4*b^4*c*g*h^2*m^3*z + 18*a^3*b^5 \\
& c*f^2*j^2*l^3*z - 18*a*b^5*c^3*e^3*j^2*m^2*z - 9*a^3*b^5*c*e*k^2*l^3*z + 9*a*b^5*c^3 \\
& e^3*k^2*l^2*z - 216*a^4*c^5*d*e*h^2*l^2*z - 216*a^3*c^6*e^2*f*h^2*j^2*z + 216*a^3
\end{aligned}$$

$$\begin{aligned}
& *c^6*d*e^2*h*1*z - 126*a*b^4*c^4*d^3*j*m*z + 108*a^4*b*c^4*g*h^3*1*z + 63*a \\
& *b^4*c^4*d^3*k*1*z + 36*a^5*b*c^3*g*h*1^3*z - 9*a^3*b^5*c*g*h*1^3*z + 216*a \\
& ^4*c^5*d*e*f*m^2*z + 216*a^3*c^6*d*f^2*g*k*z - 216*a^3*c^6*d*e*f^2*m*z + 36 \\
& *a^4*b*c^4*e*j^3*k*z + 36*a^4*b*c^4*d*j^3*1*z - 216*a^3*c^6*d*f*g^2*j*z + 7 \\
& 2*a^3*b^5*c*e*g*m^3*z + 72*a^3*b^5*c*d*h*m^3*z + 72*a^3*b*c^5*f^3*h*k*z + 7 \\
& 2*a^3*b*c^5*f^3*g*1*z + 36*a^4*b*c^4*g*h*j^3*z + 18*a*b^4*c^4*e^3*f*m*z + 9 \\
& *a^2*b^6*c*e*g*1^3*z + 9*a^2*b^6*c*d*h*1^3*z - 9*a*b^4*c^4*e^3*h*k*z - 9*a* \\
& b^4*c^4*e^3*g*1*z + 216*a^3*c^6*d*e*f*j^2*z - 144*a^2*b*c^6*d^3*f*m*z + 108 \\
& *a^3*b*c^5*e*g^3*k*z - 108*a^3*b*c^5*d*g^3*1*z + 108*a*b^3*c^5*d^3*f*m*z - \\
& 72*a^4*b*c^4*d*h*k^3*z + 72*a^2*b*c^6*d^3*h*k*z - 54*a*b^3*c^5*d^3*h*k*z + \\
& 36*a^4*b*c^4*e*g*k^3*z - 36*a^2*b*c^6*d^3*g*1*z - 27*a*b^3*c^5*d^3*g*1*z - \\
& 81*a^2*b^6*c*d*e*m^3*z + 216*a^4*b*c^4*d*e*1^3*z + 72*a^2*b*c^6*e^3*f*j*z + \\
& 72*a^2*b*c^6*d*e^3*1*z - 18*a*b^3*c^5*e^3*f*j*z - 18*a*b^3*c^5*d*e^3*1*z - \\
& 90*a*b^2*c^6*d^3*f*j*z + 72*a*b^2*c^6*d^3*e*k*z + 36*a^3*b*c^5*e*g*h^3*z - \\
& 36*a^2*b*c^6*e^3*g*h*z + 9*a*b^6*c^2*d*e*k^3*z + 9*a*b^3*c^5*e^3*g*h*z - 1 \\
& 80*a^3*b*c^5*d*e*j^3*z + 18*a*b^2*c^6*d^3*g*h*z - 9*a*b^5*c^3*d*e*j^3*z + 1 \\
& 8*a*b^2*c^6*d*e^3*h*z + 9*a*b^4*c^4*d*e*h^3*z + 36*a^2*b*c^6*d*e*g^3*z - 9* \\
& a*b^3*c^5*d*e*g^3*z - 18*a*b^2*c^6*d*e*f^3*z + 27*a^5*b^2*c^2*h^2*1*m^2*z - \\
& 27*a^5*b^2*c^2*j*k^2*1^2*z + 27*a^4*b^3*c^2*h^2*k^2*m*z + 27*a^4*b^3*c^2*g \\
& ^2*1^2*m*z + 27*a^5*b^2*c^2*g*k^2*m^2*z - 27*a^4*b^3*c^2*h^2*k*1^2*z - 27*a \\
& ^4*b^3*c^2*g^2*k*m^2*z - 135*a^4*b^2*c^3*e^2*1*m^2*z + 27*a^5*b^2*c^2*e*1^2 \\
& *m^2*z + 27*a^4*b^3*c^2*h*j^2*1^2*z - 27*a^4*b^2*c^3*h^2*j^2*1*z + 27*a^3*b \\
& ^4*c^2*e^2*1*m^2*z - 270*a^4*b^3*c^2*f*j^2*m^2*z - 270*a^4*b^2*c^3*f^2*j*m^ \\
& 2*z + 162*a^3*b^4*c^2*f^2*j*m^2*z - 108*a^3*b^3*c^3*f^2*j^2*m*z - 27*a^4*b^ \\
& 2*c^3*h^2*j*k^2*z - 27*a^4*b^2*c^3*g^2*j*1^2*z + 27*a^3*b^3*c^3*e^2*k^2*m*z \\
& + 27*a^3*b^3*c^3*d^2*1^2*m*z + 27*a^2*b^5*c^2*f^2*j^2*m*z + 162*a^3*b^3*c^ \\
& 3*d^2*k*m^2*z - 27*a^4*b^3*c^2*d*k^2*m^2*z - 27*a^4*b^2*c^3*g*j^2*k^2*z + 2 \\
& 7*a^3*b^3*c^3*g^2*h^2*m*z - 27*a^2*b^5*c^2*d^2*k*m^2*z + 162*a^3*b^2*c^4*d^ \\
& 2*k^2*1*z - 108*a^4*b^2*c^3*g*h^2*1^2*z - 27*a^4*b^2*c^3*e*j^2*1^2*z + 27*a \\
& ^3*b^4*c^2*g*h^2*1^2*z + 27*a^3*b^2*c^4*e^2*j^2*1*z - 27*a^2*b^4*c^3*d^2*k^ \\
& 2*1*z - 162*a^3*b^3*c^3*f^2*h*1^2*z + 162*a^3*b^3*c^3*e^2*h*m^2*z - 135*a^4 \\
& *b^2*c^3*e*h^2*m^2*z + 135*a^3*b^2*c^4*f^2*h^2*1*z + 27*a^3*b^4*c^2*e*h^2*m \\
& ^2*z - 27*a^3*b^3*c^3*g^2*h*k^2*z - 27*a^3*b^2*c^4*e^2*j*k^2*z - 27*a^3*b^2 \\
& *c^4*d^2*j*1^2*z + 27*a^2*b^5*c^2*f^2*h*1^2*z - 27*a^2*b^5*c^2*e^2*h*m^2*z \\
& - 27*a^2*b^4*c^3*f^2*h^2*1*z - 27*a^3*b^2*c^4*g^2*h^2*j*z + 27*a^2*b^3*c^4* \\
& e^2*g^2*m*z - 27*a^2*b^3*c^4*d^2*j^2*k*z + 27*a^2*b^3*c^4*d^2*h^2*m*z + 351 \\
& *a^3*b^2*c^4*d^2*g*m^2*z - 189*a^2*b^4*c^3*d^2*g*m^2*z + 162*a^3*b^3*c^3*d* \\
& g^2*m^2*z - 162*a^3*b^2*c^4*e^2*g*1^2*z + 135*a^3*b^3*c^3*d*h^2*1^2*z + 135 \\
& *a^3*b^2*c^4*f^2*g*k^2*z - 27*a^2*b^5*c^2*d*h^2*1^2*z - 27*a^2*b^5*c^2*d*g^ \\
& 2*m^2*z - 27*a^2*b^4*c^3*f^2*g*k^2*z + 27*a^2*b^4*c^3*e^2*g*1^2*z + 27*a^2* \\
& b^3*c^4*f^2*g^2*k*z + 27*a^2*b^3*c^4*e^2*h^2*k*z + 135*a^3*b^2*c^4*e*f^2*1^ \\
& 2*z - 108*a^3*b^2*c^4*e*g^2*k^2*z + 108*a^2*b^2*c^5*d^2*g^2*1*z + 27*a^3*b^ \\
& 2*c^4*e*h^2*j^2*z + 27*a^2*b^4*c^3*e*g^2*k^2*z - 27*a^2*b^4*c^3*e*f^2*1^2*z \\
& - 27*a^2*b^3*c^4*e^2*h*j^2*z - 27*a^2*b^2*c^5*e^2*f^2*1*z - 27*a^2*b^2*c^5 \\
& *e^2*g^2*j*z - 27*a^2*b^2*c^5*d^2*h^2*j*z + 162*a^2*b^3*c^4*d*e^2*1^2*z - 1 \\
& 35*a^2*b^2*c^5*d^2*g*j^2*z - 27*a^2*b^3*c^4*d*g^2*j^2*z + 27*a^2*b^3*c^4*d* \\
& f^2*k^2*z - 162*a^2*b^2*c^5*d^2*e*k^2*z - 27*a^2*b^2*c^5*e*f^2*h^2*z - 72*a \\
& ^7*c^2*k*1*m^3*z + 9*a^5*b^4*k*1*m^3*z + 72*a^6*c^3*j*k^3*m*z - 72*a^6*c^3* \\
& h*k*1^3*z - 72*a^6*c^3*f*1^3*m*z - 72*a^5*c^4*h^3*k*1*z - 72*a^5*c^4*h^3*j* \\
& m*z - 9*a^4*b^5*h*k*m^3*z - 9*a^4*b^5*g*1*m^3*z - 144*a^6*c^3*f*j*m^3*z - 1 \\
& 44*a^5*c^4*h*j^3*k*z - 144*a^5*c^4*g*j^3*1*z - 144*a^5*c^4*f*j^3*m*z - 144* \\
& a^4*c^5*f^3*j*m*z + 72*a^6*c^3*e*k*m^3*z + 72*a^6*c^3*d*1*m^3*z + 72*a^4*c^ \\
& 5*f^3*k*1*z + 72*a^6*c^3*g*h*m^3*z + 18*b^6*c^3*d^3*j*m*z - 18*a^3*b^6*f*j* \\
& m^3*z - 9*b^6*c^3*d^3*k*1*z + 9*a^3*b^6*e*k*m^3*z + 9*a^3*b^6*d*1*m^3*z + 1 \\
& 44*a^5*c^4*d*k^3*1*z + 144*a^3*c^6*d^3*k*1*z - 72*a^5*c^4*f*j*k^3*z - 72*a^ \\
& 3*c^6*d^3*j*m*z + 9*a^3*b^6*g*h*m^3*z - 72*a^5*c^4*g*h*k^3*z - 72*a^4*c^5*g \\
& ^3*h*k*z - 72*a^4*c^5*f*g^3*m*z - 108*a^5*b*c^3*j^4*m*z + 63*a^6*b^2*c*j*m^ \\
& 4*z + 36*a^6*b*c^2*k*1^4*z - 9*a^5*b^3*c*k*1^4*z - 144*a^5*c^4*e*g*1^3*z - \\
& 144*a^3*c^6*e^3*g*1*z + 72*a^5*c^4*d*h*1^3*z + 72*a^4*c^5*f*h^3*j*z + 72*a^
\end{aligned}$$

$$\begin{aligned}
&4c^5eh^3kz + 72a^4c^5d^3h^3l^3z + 72a^3c^6e^3h^3kz + 72a^3c^6e^3f^3mz - 18b^5c^4d^3f^3mz + 9b^5c^4d^3h^3kz + 9b^5c^4d^3g^3l^3z - 9a^2b^7e^3g^3m^3z - 9a^2b^7d^3h^3m^3z + 144a^4c^5e^3g^3j^3z + 144a^4c^5d^3h^3j^3z - 72a^5c^4d^3e^3m^3z - 72a^3c^6e^3f^3kz - 72a^3c^6d^3f^3l^3z + 144a^6b^3c^2f^3m^4z - 108a^5b^3c^3f^3m^4z - 72a^3c^6f^3g^3h^3z + 36a^5b^3c^3h^3k^4z - 36a^3b^3c^5f^4m^3z + 18b^4c^5d^3f^3j^3z - 9b^4c^5d^3e^3k^3z + 9a^4b^4c^3g^3l^4z - 144a^4c^5d^3e^3k^3z - 144a^2c^7d^3e^3k^3z + 72a^2c^7d^3f^3j^3z - 9b^4c^5d^3g^3h^3z + 72a^3c^6d^3g^3h^3z + 72a^2c^7d^3g^3h^3z - 72a^5b^3c^3d^3l^4z - 72a^4b^3c^4f^3j^4z + 45a^2b^2c^6d^4l^3z - 36a^2b^3c^6e^4k^3z - 9a^3b^5c^3d^3l^4z + 9a^2b^3c^5e^4k^3z - 72a^3c^6d^3e^3h^3z - 72a^2c^7d^3e^3h^3z + 9b^3c^6d^3e^3g^3z + 72a^2c^7d^3e^3f^3z + 36a^3b^3c^5d^3h^4z - 9a^2b^2c^6e^4g^3z + 36a^3b^3c^7d^3f^2z + 90a^5b^2c^2j^3m^2z + 45a^5b^2c^2j^2l^3z + 9a^4b^3c^2j^2k^3z - 9a^4b^3c^2h^3m^2z - 45a^4b^2c^3g^3m^2z + 9a^3b^4c^2g^3m^2z + 198a^4b^3c^2f^2m^3z - 108a^3b^3c^3f^3m^2z + 18a^2b^5c^2f^3m^2z - 117a^4b^2c^3f^2l^3z + 117a^3b^2c^4e^3m^2z + 63a^3b^4c^2f^2l^3z - 63a^2b^4c^3e^3m^2z - 171a^2b^3c^4d^3m^2z - 54a^3b^3c^3f^2k^3z + 9a^3b^2c^4g^3j^2z + 9a^2b^5c^2f^2k^3z + 18a^3b^2c^4f^2j^3z + 18a^2b^3c^4f^3j^2z - 9a^2b^4c^3f^2j^3z - 45a^2b^2c^5e^3j^2z + 9a^2b^3c^4f^2h^3z - 9a^2b^2c^5f^2g^3z + 9a^2b^8d^3e^3m^3z - 36a^2b^3c^7d^4h^3z - 108a^6c^3h^2l^3m^2z + 108a^6c^3j^2k^2l^2z - 108a^6c^3g^2k^2m^2z - 108a^6c^3e^2l^2m^2z + 108a^5c^4h^2j^2l^3z + 108a^5c^4e^2l^3m^2z + 216a^5c^4f^2j^2m^2z + 108a^5c^4h^2j^2k^2z + 108a^5c^4g^2j^2l^2z + 108a^5c^4g^2j^2k^2z - 216a^4c^5d^2k^2l^3z + 108a^5c^4e^2j^2l^2z - 108a^4c^5e^2j^2l^3z - 9a^6b^2c^3l^3m^2z + 108a^5c^4e^2h^2m^2z - 108a^4c^5f^2h^2l^3z + 108a^4c^5e^2j^2k^2z + 108a^4c^5d^2j^2l^2z - 144a^6b^3c^2j^2m^3z + 108a^4c^5g^2h^2j^2z - 27a^4b^4c^3j^3m^2z + 27a^4b^3c^2j^4m^3z + 9a^5b^2c^2k^4l^3z + 216a^4c^5e^2g^3l^2z - 108a^4c^5f^2g^2k^2z - 108a^4c^5d^2g^3m^2z - 9a^4b^4c^3j^2l^3z - 108a^4c^5e^3h^2j^2z - 108a^4c^5e^3f^2l^2z + 108a^3c^6e^2f^2l^3z - 36a^5b^3c^3j^2k^3z + 36a^5b^3c^3h^3m^2z + 108a^3c^6e^2g^2j^2z + 108a^3c^6d^2h^2j^2z - 216a^5b^3c^3f^2m^3z + 144a^4b^3c^4f^3m^2z + 108a^3c^6d^2g^3j^2z - 72a^3b^5c^3f^2m^3z - 45a^5b^2c^2g^3l^4z - 9a^4b^3c^2h^3k^4z - 9a^3b^2c^4g^4l^3z + 9a^2b^3c^4f^4m^3z + 216a^3c^6d^2e^3k^2z - 9a^2b^6c^3f^2l^3z + 9a^2b^6c^2e^3m^2z + 108a^3c^6e^3f^2h^2z + 108a^3b^5c^5d^3m^2z + 108a^2c^7d^2e^2j^2z + 72a^4b^3c^4f^2k^3z + 72a^2b^5c^3d^3m^2z - 72a^3b^3c^5f^3j^2z + 54a^4b^3c^2d^3l^4z - 45a^4b^2c^3e^3k^4z + 18a^3b^3c^3f^3j^4z + 9a^3b^4c^2e^3k^4z - 9a^2b^2c^5f^4j^2z - 108a^2c^7d^2f^2g^3z + 9a^3b^2c^4g^3h^4z + 9a^2b^4c^4e^3j^2z - 72a^2b^3c^6d^3j^2z + 54a^2b^3c^5d^3j^2z - 36a^3b^3c^5f^2h^3z - 9a^2b^3c^4d^3h^4z + 9a^2b^2c^5e^3g^4z + 9a^2b^2c^6e^3f^2z + 36a^7c^2l^3m^2z + 72a^6c^3j^3m^2z - 36a^6c^3j^2l^3z + 9a^4b^5j^2m^3z + 36a^5c^4g^3m^2z + 36a^5c^4f^2l^3z - 36a^4c^5e^3m^2z - 9b^7c^2d^3m^2z + 9a^2b^7f^2m^3z - 36a^4c^5g^3j^2z + 72a^4c^5f^2j^3z + 36a^3c^6e^3j^2z - 9b^5c^4d^3j^2z + 36a^3c^6f^2g^3z - 9a^4b^2c^3j^5z - 36a^2c^7e^3f^2z - 9b^3c^6d^3f^2z + 36a^7c^2j^3m^4z - 36a^6c^3k^4l^3z - 18a^5b^4j^3m^4z + 36a^6c^3g^3l^4z + 36a^4c^5g^4l^3z + 18a^4b^5f^3m^4z - 9b^4c^5d^4l^3z + 36a^5c^4e^3k^4z + 36a^3c^6f^4j^2z - 36a^2c^7d^4l^3z - 36a^4c^5g^3h^4z + 9b^3c^6d^4h^3z - 36a^3c^6e^3g^4z + 36a^2c^7e^4g^3z - 9b^2c^7d^4e^3z - 36a^7b^3c^5m^5z + 36a^8d^4e^3z + 9a^6b^3m^5z + 36a^5c^4j^5z + 9a^4b^3c^3g^3h^3j^3k^3l^3m - 9a^3b^4c^3e^3g^3j^3k^3l^3m - 9a^3b^4c^3d^3h^3j^3k^3l^3m - 9a^3b^4c^3f^3g^3h^3k^3l^3m + 36a^4b^3c^3d^3e^3j^3k^3l^3m + 9a^2b^5c^3d^3e^3j^3k^3l^3m + 36a^4b^3c^3e^3f^3h^3j^3l^3m + 36a^4b^3c^3e^3f^3g^3k^3l^3m + 36a^4b^3c^3d^3f^3h^3k^3l^3m + 9a^2b^5c^3e^3f^3g^3k^3l^3m + 9a^2b^5c^3d^3f^3h^3k^3l^3m + 36a^3b^3c^4d^3e^3f^3j^3k^3l^3m + 9a^2b^5c^3d^3e^3f^3j^3k^3l^3m + 36a^3b^3c^4d^3e^3f^3h^3k^3l^3m + 36a^3b^3c^4d^3e^3f^3
\end{aligned}$$

$g^1m + 9a^*b^5c^2d^*e^*f^*h^*k^*m + 9a^*b^5c^2d^*e^*f^*g^1m - 9a^*b^4c^3d^*e^*f^*h^*j^*k - 9a^*b^4c^3d^*e^*f^*g^*j^*l - 9a^*b^4c^3d^*e^*f^*g^*h^*m + 9a^*b^3c^4d^*e^*f^*g^*h^*j - 9a^*b^6c^d^*e^*f^*k^*l^*m + 18a^4b^2c^2e^*g^*j^*k^*l^*m + 18a^4b^2c^2d^*h^*j^*k^*l^*m + 18a^4b^2c^2f^*g^*h^*k^*l^*m - 36a^3b^3c^2d^*e^*j^*k^*l^*m - 36a^3b^3c^2e^*f^*g^*k^*l^*m - 36a^3b^3c^2d^*f^*h^*k^*l^*m + 9a^3b^3c^2f^*g^*h^*j^*k^*l + 9a^3b^3c^2e^*g^*h^*j^*k^*m + 9a^3b^3c^2d^*g^*h^*j^*l^*m - 108a^3b^2c^3d^*e^*f^*k^*l^*m + 54a^2b^4c^2d^*e^*f^*k^*l^*m - 36a^3b^2c^3d^*f^*g^*j^*k^*m + 18a^3b^2c^3e^*f^*g^*j^*k^*l + 18a^3b^2c^3d^*f^*h^*j^*k^*l + 18a^3b^2c^3d^*e^*h^*j^*k^*m + 18a^3b^2c^3d^*e^*g^*j^*l^*m - 9a^2b^4c^2e^*f^*g^*j^*k^*l - 9a^2b^4c^2d^*f^*h^*j^*k^*l - 9a^2b^4c^2d^*e^*h^*j^*k^*m - 9a^2b^4c^2d^*e^*g^*j^*l^*m + 18a^3b^2c^3e^*f^*g^*h^*k^*m + 18a^3b^2c^3d^*f^*g^*h^*l^*m - 9a^2b^4c^2e^*f^*g^*h^*k^*m - 9a^2b^4c^2d^*f^*g^*h^*l^*m - 36a^2b^3c^3d^*e^*f^*j^*k^*l - 36a^2b^3c^3d^*e^*f^*h^*k^*m - 36a^2b^3c^3d^*e^*f^*g^1m + 9a^2b^3c^3e^*f^*g^*h^*j^*k + 9a^2b^3c^3d^*f^*g^*h^*j^*l + 9a^2b^3c^3d^*e^*g^*h^*j^*m + 18a^2b^2c^4d^*e^*f^*h^*j^*k + 18a^2b^2c^4d^*e^*f^*g^*j^*l + 18a^2b^2c^4d^*e^*f^*g^*h^*m - 9a^5b^2c^*h^*j^*k^2l^*m - 9a^5b^2c^*g^*j^*k^*l^2m + 27a^5b^2c^*f^*j^*k^*l^*m^2 - 9a^4b^3c^*f^*j^2k^*l^*m + 9a^3b^4c^*f^2j^*k^*l^*m - 18a^5b^*c^2e^*j^*k^2l^*m - 9a^5b^2c^*g^*h^*k^*l^*m^2 + 9a^4b^3c^*e^*j^*k^2l^*m - 18a^5b^*c^2f^*h^*k^2l^*m - 18a^5b^*c^2d^*j^*k^*l^2m + 9a^4b^3c^*f^*h^*k^2l^*m + 9a^4b^3c^*d^*j^*k^*l^2m + 36a^5b^*c^2e^*h^*k^*l^2m - 36a^4b^*c^3e^2h^*k^*l^*m + 18a^5b^*c^2f^*h^*j^*l^2m - 18a^5b^*c^2f^*g^*k^*l^2m - 18a^4b^3c^*e^*h^*k^*l^2m + 9a^4b^3c^*f^*g^*k^*l^2m + 9a^3b^4c^*e^*h^2k^*l^*m - 9a^2b^5c^*e^2h^*k^*l^*m - 54a^5b^*c^2e^*h^*j^*l^*m^2 - 18a^5b^*c^2e^*g^*k^*l^*m^2 - 18a^5b^*c^2d^*h^*k^*l^*m^2 + 18a^4b^3c^*e^*h^*j^*l^*m^2 - 9a^4b^3c^*f^*h^*j^*k^*m^2 - 9a^4b^3c^*f^*g^*j^*l^*m^2 + 9a^4b^3c^*e^*g^*k^*l^*m^2 + 9a^4b^3c^*d^*h^*k^*l^*m^2 + 18a^4b^*c^3f^*g^2j^*k^*m - 18a^4b^*c^3e^*g^2j^*l^*m + 18a^3b^4c^*d^*g^*k^2l^*m - 9a^3b^4c^*e^*f^*k^2l^*m - 9a^2b^5c^*d^*g^2k^*l^*m - 18a^4b^*c^3f^*g^2h^*l^*m - 18a^4b^*c^3d^*h^2j^*k^*m - 9a^3b^4c^*d^*f^*k^*l^2m - 54a^4b^*c^3d^*g^*j^2k^*m - 18a^4b^*c^3f^*g^*h^2k^*m - 18a^4b^*c^3e^*g^*j^2k^*l - 18a^4b^*c^3d^*h^*j^2k^*l - 18a^3b^4c^*d^*g^*j^*k^*m^2 + 9a^3b^4c^*e^*f^*j^*k^*m^2 + 9a^3b^4c^*d^*f^*j^*l^*m^2 - 9a^3b^4c^*d^*e^*k^*l^*m^2 - 54a^3b^*c^4d^2f^*j^*k^*m + 36a^4b^*c^3d^*g^*j^*k^2l - 36a^3b^*c^4d^2g^*j^*k^*l - 18a^4b^*c^3e^*f^*j^*k^2l + 18a^4b^*c^3d^*f^*j^*k^2m - 18a^3b^*c^4d^2e^*j^*l^*m + 9a^3b^4c^*f^*g^*h^*j^*m^2 - 9a^*b^5c^2d^2g^*j^*k^*l + 36a^4b^*c^3d^*g^*h^*k^2m - 36a^3b^*c^4d^2g^*h^*k^*m + 18a^4b^*c^3e^*g^*h^*k^2l - 18a^4b^*c^3e^*f^*h^*k^2m - 18a^4b^*c^3d^*f^*j^*k^*l^2 - 18a^3b^*c^4d^2f^*h^*l^*m - 18a^3b^*c^4d^*e^2j^*k^*m - 9a^*b^5c^2d^2g^*h^*k^*m - 54a^4b^*c^3d^*g^*h^*k^*l^2 - 54a^3b^*c^4e^2f^*h^*j^*m - 18a^4b^*c^3d^*f^*g^1l^2m - 18a^3b^*c^4e^2f^*g^*k^*m - 54a^4b^*c^3d^*f^*g^*k^*m^2 - 36a^4b^*c^3e^*f^*g^*j^*m^2 - 36a^4b^*c^3d^*f^*h^*j^*m^2 + 36a^3b^*c^4e^*f^2g^*j^*m + 36a^3b^*c^4d^*f^2h^*j^*m - 18a^4b^*c^3d^*e^*h^*k^*m^2 - 18a^4b^*c^3d^*e^*g^1m^2 + 18a^3b^*c^4e^*f^2h^*j^*l - 18a^3b^*c^4e^*f^2g^*k^*l - 18a^3b^*c^4d^*f^2h^*k^*l + 18a^3b^*c^4d^*f^2g^*k^*m - 9a^2b^5c^*e^*f^*g^*j^*m^2 - 9a^2b^5c^*d^*f^*h^*j^*m^2 - 54a^3b^*c^4d^*f^*g^2j^*m - 18a^3b^*c^4e^*f^*g^2j^*l - 18a^*b^4c^3d^2f^*g^*j^*m + 9a^*b^4c^3d^2g^*h^*j^*k + 9a^*b^4c^3d^2f^*g^*k^*l + 9a^*b^4c^3d^2e^*g^*k^*m - 9a^*b^4c^3d^2e^*f^*l^*m - 18a^3b^*c^4e^*f^*g^2h^*m - 18a^3b^*c^4d^*f^*h^2j^*k - 9a^*b^4c^3d^*e^2f^*k^*m + 18a^3b^*c^4d^*f^*g^*j^2k - 18a^3b^*c^4d^*f^*g^*h^2m - 18a^3b^*c^4d^*e^*h^*j^2k - 18a^3b^*c^4d^*e^*g^*j^2l + 18a^*b^4c^3d^*e^*f^2j^*m - 9a^*b^5c^2d^*e^*f^*j^2m - 9a^*b^4c^3d^*e^*f^2k^*l - 18a^2b^*c^5d^2e^*f^*j^*l - 9a^*b^3c^4d^2e^*g^*j^*k + 9a^*b^3c^4d^2e^*f^*j^*l - 54a^2b^*c^5d^2e^*g^*h^*l - 18a^2b^*c^5d^2e^*f^*h^*m - 18a^2b^*c^5d^*e^2f^*j^*k + 18a^*b^3c^4d^2e^*g^*h^*l - 9a^*b^3c^4d^2e^*f^*h^*k + 9a^*b^3c^4d^2e^*f^*h^*m + 9a^*b^3c^4d^*e^2f^*j^*k - 36a^3b^*c^4d^*e^*f^*h^*l^2 + 36a^2b^*c^5d^*e^2f^*h^*l + 18a^2b^*c^5d^*e^2g^*h^*k - 18a^2b^*c^5d^*e^2f^*g^*m - 18a^*b^3c^4d^*e^2f^*h^*l - 9a^*b^5c^2d^*d^*e^*f^*h^*l^2 + 9a^*b^4c^3d^*e^*f^*h^2l + 9a^*b^3c^4d^*e^2f^*g^*m - 18a^2b^*c^5d^*e^*f^2h^*k - 18a^2b^*c^5d^*e^*f^2g^*l + 9a^*b^3c^4d^*e^*f^2h^*k + 9a^*b^3c^4d^*e^*f^2g^*l + 27a^*b^2c^5d^2e^*f^*g^*k + 9a^*b^4c^3d^*e^*f^*g^*k^2 - 9a^*b^3c^4d^*e^*f^*g^2k - 9a^*b^2c^5d^2e^*f^*h^*j - 9a^*b^2c^5d^*e^2f^*g^*j - 9a^*b^2c^5d^*e^*f^2g^*h + 72a^4c^4d^*d^*f^*g^*j^*k^*m + 72a^4c^4d^*d^*e^*f^*k^*l$

$$\begin{aligned}
& *m + 9*a*b^6*c*d^2*g*k^1*m + 9*a*b^6*c*d*e*f*j*m^2 - 27*a^4*b^2*c^2*f^2*j*k \\
& *l*m - 9*a^4*b^2*c^2*g^2*h*j^1*m + 36*a^3*b^3*c^2*e^2*h*k^1*m - 18*a^4*b^2*c^2 \\
& *e*h^2*k^1*m - 9*a^4*b^2*c^2*g*h^2*j*k^1*m + 18*a^4*b^2*c^2*f*h*j^2*k^1*m + \\
& 18*a^4*b^2*c^2*f*g*j^2*l^1*m - 18*a^4*b^2*c^2*e*h*j^2*l^1*m - 9*a^4*b^2*c^2*g*h \\
& *j^2*k^1 - 9*a^3*b^3*c^2*f^2*h*j*k^1*m - 9*a^3*b^3*c^2*f^2*g*j^1*m - 63*a^4*b^2 \\
& ^2*c^2*d*g*k^2*l^1*m + 63*a^3*b^2*c^3*d^2*g*k^1*m - 45*a^2*b^4*c^2*d^2*g*k^1* \\
& m + 36*a^4*b^2*c^2*e*f*k^2*l^1*m + 27*a^3*b^3*c^2*d*g^2*k^1*m - 9*a^4*b^2*c^2 \\
& *f*h*j*k^2*l - 9*a^4*b^2*c^2*e*h*j*k^2*m + 9*a^3*b^3*c^2*e*g^2*j^1*m - 9*a^3 \\
& *b^2*c^3*d^2*h*j^1*m + 36*a^4*b^2*c^2*d*f*k^1^2*m + 27*a^4*b^2*c^2*e*h*j*k^1 \\
& *l^2 - 27*a^3*b^2*c^3*e^2*h*j*k^1 - 18*a^3*b^2*c^3*e^2*f*j^1*m - 9*a^4*b^2*c^2 \\
& *f*g*j*k^1^2 - 9*a^4*b^2*c^2*d*g*j^1^2*m + 9*a^3*b^3*c^2*f*g^2*h^1*m - 9 \\
& *a^3*b^3*c^2*e*h^2*j*k^1 + 9*a^3*b^3*c^2*d*h^2*j*k^1*m - 9*a^3*b^2*c^3*e^2*g* \\
& j*k^1*m + 9*a^2*b^4*c^2*e^2*h*j*k^1 + 72*a^4*b^2*c^2*d*g*j*k^1*m^2 + 36*a^4*b^2 \\
& *c^2*d*e*k^1*m^2 + 27*a^4*b^2*c^2*e*g*h^1^2*m - 27*a^4*b^2*c^2*e*f*j*k^1*m^2 \\
& - 27*a^4*b^2*c^2*d*f*j^1*m^2 - 27*a^3*b^2*c^3*e^2*g*h^1*m + 27*a^3*b^2*c^3* \\
& e*f^2*j*k^1*m + 27*a^3*b^2*c^3*d*f^2*j^1*m + 18*a^3*b^3*c^2*d*g*j^2*k^1*m + 9*a \\
& ^3*b^3*c^2*f*g*h^2*k^1*m + 9*a^3*b^3*c^2*e*g*j^2*k^1 - 9*a^3*b^3*c^2*e*g*h^2* \\
& l^1*m - 9*a^3*b^3*c^2*e*f*j^2*k^1*m + 9*a^3*b^3*c^2*d*h*j^2*k^1 - 9*a^3*b^3*c^2 \\
& *d*f*j^2*l^1*m + 9*a^2*b^4*c^2*e^2*g*h^1*m + 36*a^2*b^3*c^3*d^2*g*j*k^1 - 27* \\
& a^4*b^2*c^2*f*g*h*j^1*m^2 + 27*a^3*b^2*c^3*f^2*g*h*j^1*m - 18*a^4*b^2*c^2*e*f*h \\
& *l^1*m^2 - 18*a^3*b^3*c^2*d*g*j*k^2*l - 18*a^3*b^2*c^3*d*g^2*j*k^1 + 18*a^2*b^3 \\
& ^3*c^3*d^2*f*j*k^1*m - 9*a^4*b^2*c^2*e*g*h*k^1*m^2 - 9*a^4*b^2*c^2*d*g*h^1*m^2 \\
& - 9*a^3*b^3*c^2*f*g*h*j^2*m + 9*a^3*b^3*c^2*e*f*j*k^2*l - 9*a^3*b^2*c^3*f^2 \\
& *g*h*k^1 + 9*a^2*b^4*c^2*d*g^2*j*k^1 + 9*a^2*b^3*c^3*d^2*e*j^1*m + 36*a^3*b^2 \\
& ^2*c^3*e*f*g^2*l^1*m + 36*a^2*b^3*c^3*d^2*g*h*k^1*m - 18*a^3*b^3*c^2*d*g*h*k^2* \\
& m - 18*a^3*b^2*c^3*d*g^2*h*k^1*m + 9*a^3*b^3*c^2*e*f*h*k^2*m + 9*a^3*b^3*c^2* \\
& d*f*j*k^1^2 - 9*a^3*b^2*c^3*f*g^2*h*j^1 - 9*a^3*b^2*c^3*e*g^2*h*j^1*m - 9*a^2 \\
& *b^4*c^2*e*f*g^2*l^1*m + 9*a^2*b^4*c^2*d*g^2*h*k^1*m + 9*a^2*b^3*c^3*d^2*f*h^1* \\
& m + 9*a^2*b^3*c^3*d*e^2*j*k^1*m + 36*a^3*b^2*c^3*d*f*h^2*k^1*m + 36*a^3*b^2*c^3 \\
& *d*e*j^2*k^1 + 18*a^3*b^3*c^2*d*g*h*k^1^2 + 18*a^3*b^2*c^3*e*g*h^2*j^1 + 18 \\
& *a^3*b^2*c^3*e*f*h^2*k^1 - 18*a^3*b^2*c^3*e*f*h^2*j^1*m - 18*a^3*b^2*c^3*d*g* \\
& h^2*k^1 + 18*a^3*b^2*c^3*d*e*h^2*l^1*m + 18*a^2*b^3*c^3*e^2*f*h*j^1*m - 9*a^3*b^3 \\
& ^3*c^2*e*g*h*j^1^2 - 9*a^3*b^3*c^2*e*f*h*k^1^2 + 9*a^3*b^3*c^2*d*f*g^1^2*m \\
& - 9*a^3*b^3*c^2*d*e*h^1^2*m - 9*a^3*b^2*c^3*f*g*h^2*j^1*k - 9*a^3*b^2*c^3*d*g \\
& *h^2*j^1*m - 9*a^2*b^4*c^2*d*f*h^2*k^1*m - 9*a^2*b^4*c^2*d*e*j^2*k^1 - 9*a^2*b^3 \\
& ^3*c^3*e^2*g*h*j^1 - 9*a^2*b^3*c^3*e^2*f*h*k^1 + 9*a^2*b^3*c^3*e^2*f*g*k^1*m - \\
& 9*a^2*b^3*c^3*d*e^2*h^1*m + 36*a^3*b^3*c^2*e*f*g*j^1*m^2 + 36*a^3*b^3*c^2*d* \\
& f*h*j^1*m^2 + 18*a^3*b^3*c^2*d*f*g*k^1*m^2 - 18*a^3*b^2*c^3*e*f*g*j^2*m - 18*a^3 \\
& *b^2*c^3*d*f*h*j^2*m - 18*a^2*b^3*c^3*e*f^2*g*j^1*m - 18*a^2*b^3*c^3*d*f^2*h \\
& *j^1*m + 9*a^3*b^3*c^2*d*e*h*k^1*m^2 + 9*a^3*b^3*c^2*d*e*g^1*m^2 - 9*a^3*b^2*c^3 \\
& *e*g*h*j^2*k - 9*a^3*b^2*c^3*d*g*h*j^2*l + 9*a^2*b^4*c^2*e*f*g*j^2*m + 9*a^2 \\
& ^2*b^4*c^2*d*f*h*j^2*m + 9*a^2*b^3*c^3*e*f^2*g*k^1 + 9*a^2*b^3*c^3*d*f^2*h* \\
& k^1 + 72*a^2*b^2*c^4*d^2*f*g*j^1*m + 36*a^2*b^2*c^4*d^2*e*f^1*m + 27*a^3*b^2* \\
& c^3*d*g*h*j*k^2 + 27*a^3*b^2*c^3*d*f*g*k^2*l + 27*a^3*b^2*c^3*d*e*g*k^2*m - \\
& 27*a^2*b^2*c^4*d^2*g*h*j*k - 27*a^2*b^2*c^4*d^2*f*g*k^1 - 27*a^2*b^2*c^4*d^2 \\
& ^2*e*g*k^1*m + 18*a^2*b^3*c^3*d*f*g^2*j^1*m - 18*a^2*b^2*c^4*d^2*e*h*k^1 - 9*a^3 \\
& *b^2*c^3*e*f*h*j*k^2 + 9*a^2*b^3*c^3*e*f*g^2*j^1 - 9*a^2*b^3*c^3*d*g^2*h*j^1 \\
& *k - 9*a^2*b^3*c^3*d*f*g^2*k^1 - 9*a^2*b^3*c^3*d*e*g^2*k^1*m - 9*a^2*b^2*c^4* \\
& d^2*f*h*j^1 - 9*a^2*b^2*c^4*d^2*e*h*j^1*m + 36*a^2*b^2*c^4*d*e^2*f*k^1*m - 27*a^3 \\
& ^3*b^2*c^3*d*e*h*j^1^2 + 27*a^2*b^2*c^4*d*e^2*h*j^1 - 18*a^3*b^2*c^3*d*e*g* \\
& k^1^2 - 9*a^3*b^2*c^3*d*f*g*j^1^2 + 9*a^2*b^4*c^2*d*e*h*j^1^2 + 9*a^2*b^3*c^3 \\
& ^3*e*f*g^2*h^1*m + 9*a^2*b^3*c^3*d*f*h^2*j^1*k - 9*a^2*b^3*c^3*d*e*h^2*j^1 - 9* \\
& a^2*b^2*c^4*e^2*f*g*j^1*k - 9*a^2*b^2*c^4*d*e^2*g*j^1*m + 63*a^3*b^2*c^3*d*e*f* \\
& j^1*m^2 - 63*a^2*b^2*c^4*d*e*f^2*j^1*m - 45*a^2*b^4*c^2*d*e*f*j^1*m^2 + 36*a^2*b^2 \\
& ^2*c^4*d*e*f^2*k^1 - 27*a^3*b^2*c^3*e*f*g*h^1^2 + 27*a^2*b^3*c^3*d*e*f*j^2*m \\
& + 27*a^2*b^2*c^4*e^2*f*g*h^1 + 9*a^2*b^4*c^2*e*f*g*h^1^2 - 9*a^2*b^3*c^3*e \\
& *f*g*h^2*l + 9*a^2*b^3*c^3*d*f*g*h^2*m + 9*a^2*b^3*c^3*d*e*h*j^2*k + 9*a^2* \\
& b^3*c^3*d*e*g*j^2*l + 18*a^2*b^2*c^4*d*e*g^2*j^1*k - 9*a^3*b^2*c^3*d*e*g*h^1*m^2 \\
& - 9*a^2*b^3*c^3*d*e*g*j*k^2 - 9*a^2*b^2*c^4*e*f^2*g*h*k - 9*a^2*b^2*c^4*d
\end{aligned}$$

$$\begin{aligned}
& *f^2*g*h*1 + 18*a^2*b^2*c^4*d*f*g^2*h*k - 18*a^2*b^2*c^4*d*e*g^2*h*1 - 9*a^2*b^3*c^3*d*f*g*h*k^2 - 9*a^2*b^2*c^4*e*f*g^2*h*j + 36*a^2*b^3*c^3*d*e*f*h*1^2 - 18*a^2*b^2*c^4*d*e*f*h^2*1 - 9*a^2*b^2*c^4*d*f*g*h^2*j - 9*a^2*b^2*c^4*d*e*g*h*j^2 - 27*a^2*b^2*c^4*d*e*f*g*k^2 + 18*a^2*b^2*c^4*d^2*f*h*k^2 - 9*a^2*b^3*c^3*e*f*g^2*k^2 - 9*a^2*b^2*c^4*e^2*f*h*j^2 - 9*a^2*b^2*c^4*d*f^2*h^2*k + 45*a^2*b^3*c^3*d*e*f^2*m^2 + 36*a^2*b^2*c^4*d^2*e*g*1^2 + 9*a^2*b^3*c^3*d*e*g^2*1^2 + 9*a^2*b^2*c^4*e*f^2*g*j^2 + 9*a^2*b^2*c^4*d*f^2*h*j^2 - 9*a^2*b^2*c^4*d*e^2*h*k^2 - 36*a^2*b^2*c^4*d*e^2*f*1^2 - 9*a^2*b^2*c^4*d*f*g^2*j^2 - 12*a^6*b*c*h*k*1^3*m + 3*a*b^6*c*e^3*k*1*m + 3*a*b^6*c*d*e*f*1^3 - 12*a*b*c^6*d*e^3*f*h + 9*a^5*b^2*c*h^2*k*1^2*m + 18*a^5*b*c^2*g^2*k^2*1*m - 9*a^5*b^2*c*h^2*j*1*m^2 + 9*a^5*b*c^2*h^2*j^2*1*m - 9*a^4*b^3*c*g^2*k^2*1*m - 3*a^4*b^2*c^2*g^3*k*1*m + 18*a^5*b*c^2*f^2*k*1*m^2 + 15*a^3*b^3*c^2*f^3*k*1*m + 9*a^5*b^2*c*h*j^2*k*m^2 + 9*a^5*b^2*c*g*j^2*1*m^2 - 9*a^5*b^2*c*f*k^2*1^2*m + 9*a^5*b*c^2*h^2*j*k^2*m + 9*a^5*b*c^2*g^2*j*1^2*m - 9*a^4*b^3*c*f^2*k*1*m^2 + 36*a^3*b^2*c^3*e^3*k*1*m - 27*a^5*b*c^2*g^2*j*k*m^2 - 18*a^5*b*c^2*h^2*j*k*1^2 - 18*a^2*b^4*c^2*e^3*k*1*m - 9*a^5*b^2*c*g*j*k^2*m^2 - 9*a^5*b^2*c*e*k^2*1*m^2 + 9*a^5*b*c^2*h*j^2*k^2*1 + 9*a^5*b*c^2*g*j^2*k^2*m + 9*a^4*b^3*c*g^2*j*k*m^2 + 9*a^3*b^4*c*e^2*k*1^2*m + 3*a^4*b^2*c^2*h^3*j*k*1 - 54*a^4*b*c^3*d^2*k^2*1*m - 51*a^2*b^3*c^3*d^3*k*1*m - 27*a^4*b*c^3*e^2*j^2*1*m - 18*a^5*b*c^2*g*h^2*1^2*m - 9*a^5*b^2*c*e*j*1^2*m^2 - 9*a^5*b^2*c*d*k*1^2*m^2 + 9*a^5*b*c^2*g^2*h*1*m^2 + 9*a^5*b*c^2*g*j^2*k*1^2 + 9*a^5*b*c^2*e*j^2*1^2*m - 9*a^3*b^4*c*e^2*j*1*m^2 - 9*a^2*b^5*c*d^2*k^2*1*m + 3*a^4*b^2*c^2*g*h^3*1*m - 3*a^3*b^3*c^2*g^3*j*k*1 + 18*a^5*b*c^2*e*j^2*k*m^2 + 18*a^5*b*c^2*d*j^2*1*m^2 + 18*a^4*b*c^3*f^2*j^2*k*1 + 9*a^5*b*c^2*g*h^2*k*m^2 + 9*a^5*b*c^2*f*h^2*1*m^2 + 9*a^5*b*c^2*f*j*k^2*1^2 - 9*a^4*b^3*c*e*j^2*k*m^2 - 9*a^4*b^3*c*d*j^2*1*m^2 + 9*a^4*b^2*c^2*f*j^3*k*1 + 9*a^4*b^2*c^2*e*j^3*k*m + 9*a^4*b^2*c^2*d*j^3*1*m + 9*a^4*b*c^3*f^2*h^2*1*m + 9*a^4*b*c^3*e^2*j*k^2*m + 9*a^4*b*c^3*d^2*j*1^2*m - 3*a^3*b^3*c^2*g^3*h*k*m - 3*a^3*b^2*c^3*f^3*j*k*1 + 3*a^2*b^4*c^2*f^3*j*k*1 + 45*a^4*b*c^3*d^2*j*k*m^2 - 27*a^5*b*c^2*d*j*k^2*m^2 + 18*a^5*b*c^2*g*h*j^2*m^2 + 18*a^4*b*c^3*e^2*j*k*1^2 + 15*a^2*b^3*c^3*e^3*j*k*1 - 12*a^3*b^2*c^3*f^3*h*k*m - 12*a^3*b^2*c^3*f^3*g*1*m + 9*a^5*b*c^2*g*h*k^2*1^2 - 9*a^4*b^3*c*g*h*j^2*m^2 + 9*a^4*b^3*c*d*j*k^2*m^2 + 9*a^4*b^2*c^2*g*h*j^3*m + 9*a^4*b*c^3*g^2*h^2*k*1 + 9*a^4*b*c^3*g^2*h^2*j*m + 9*a^2*b^5*c*d^2*j*k*m^2 + 3*a^2*b^4*c^2*f^3*h*k*m + 3*a^2*b^4*c^2*f^3*g*1*m + 36*a^2*b^2*c^4*d^3*j*k*1 + 18*a^4*b*c^3*e^2*g*1^2*m + 15*a^2*b^3*c^3*e^3*g*1*m + 12*a^4*b^2*c^2*d*j*k^3*1 + 9*a^5*b*c^2*f*g*k^2*m^2 + 9*a^5*b*c^2*e*h*k^2*m^2 + 9*a^4*b*c^3*g^2*h*j^2*1 + 9*a^4*b*c^3*f^2*h*k^2*1 + 9*a^4*b*c^3*f^2*g*k^2*m + 9*a^4*b*c^3*d^2*h*1*m^2 - 9*a^3*b^3*c^2*e*h^3*k*m + 6*a^2*b^3*c^3*e^3*h*k*m + 45*a^4*b*c^3*e^2*h*j*m^2 + 36*a^2*b^2*c^4*d^3*h*k*m - 33*a^3*b^2*c^3*d*g^3*1*m - 27*a^4*b*c^3*f^2*h*j*1^2 - 27*a^4*b*c^3*e^2*f*1*m^2 - 27*a^4*b*c^3*e*h^2*j^2*m - 18*a^4*b*c^3*g^2*h*j*k^2 - 18*a^4*b*c^3*f*g^2*k^2*1 - 18*a^4*b*c^3*e*g^2*k^2*m - 18*a^3*b*c^4*d^2*g^2*1*m + 12*a^4*b^2*c^2*d*h*k^3*m + 9*a^5*b*c^2*e*f*1^2*m^2 + 9*a^5*b*c^2*d*g*1^2*m^2 + 9*a^4*b*c^3*f^2*g*k*1^2 + 9*a^4*b*c^3*e^2*g*k*m^2 + 9*a^4*b*c^3*g*h^2*j^2*k + 9*a^4*b*c^3*f*h^2*j^2*1 + 9*a^4*b*c^3*e*f^2*1^2*m - 9*a^3*b^4*c*e*h^2*j*m^2 + 9*a^3*b*c^4*e^2*f^2*1*m + 9*a^2*b^5*c*e^2*h*j*m^2 + 9*a^2*b^4*c^2*d*g^3*1*m - 9*a^2*b^2*c^4*d^3*g*1*m - 9*a*b^5*c^2*d^2*g^2*1*m - 6*a^4*b^2*c^2*e*h*k^3*1 - 6*a^3*b^2*c^3*f*g^3*j*m + 3*a^4*b^2*c^2*g*h*j*k^3 + 3*a^4*b^2*c^2*f*g*k^3*1 + 3*a^4*b^2*c^2*e*g*k^3*m + 3*a^3*b^2*c^3*g^3*h*j*k + 3*a^3*b^2*c^3*f*g^3*k*1 + 3*a^3*b^2*c^3*e*g^3*k*m - 27*a^3*b*c^4*d^2*h^2*k*1 + 18*a^4*b*c^3*e*f^2*k*m^2 + 18*a^4*b*c^3*d*f^2*1*m^2 + 9*a^4*b*c^3*f*h^2*j*k^2 + 9*a^4*b*c^3*f*g^2*j*1^2 + 9*a^4*b*c^3*e*g^2*k*1^2 + 9*a^4*b*c^3*d*h^2*k^2*1 + 9*a^3*b^4*c*e*g*j^2*m^2 + 9*a^3*b^4*c*d*h*j^2*m^2 - 9*a^3*b^3*c^2*e*g*j^3*m - 9*a^3*b^3*c^2*d*h*j^3*m + 9*a^3*b*c^4*e^2*g^2*k*1 + 9*a^3*b*c^4*e^2*g^2*j*m + 9*a^3*b*c^4*d^2*h^2*j*m - 3*a^2*b^3*c^3*f^3*h*j*k - 3*a^2*b^3*c^3*f^3*g*j*1 - 3*a^2*b^3*c^3*e*f^3*k*m - 3*a^2*b^3*c^3*d*f^3*1*m + 45*a^4*b*c^3*d*g^2*j*m^2 + 45*a^3*b*c^4*d^2*g*j^2*m + 24*a^4*b^2*c^2*d*g*k*1^3 + 24*a^2*b^2*c^4*e^3*f*j*m + 18*a^4*b*c^3*f^2*g*h*m^2 + 18*a^4*b*c^3*d*h^2*j*1^2 + 18*a^3*b*c^4*e^2*h^2*j*k - 12*a^4*b^2*c^2*e*g*j*1^3 - 12*a^4*b^2*c
\end{aligned}$$

$$\begin{aligned}
& ^2*ef*k*l^3 - 12*a^4*b^2*c^2*d*e*l^3*m - 12*a^2*b^2*c^4*e^3*g*j*l - 12*a^2 \\
& *b^2*c^4*e^3*f*k*l - 12*a^2*b^2*c^4*d*e^3*l*m + 9*a^4*b*c^3*f*g*j^2*k^2 + 9 \\
& *a^4*b*c^3*e*h*j^2*k^2 + 9*a^3*b^2*c^3*e*h^3*j*k + 9*a^3*b^2*c^3*d*h^3*j*l \\
& + 9*a^3*b*c^4*f^2*g^2*j*k + 9*a^3*b*c^4*d^2*h*j^2*l + 9*a^2*b^5*c*d*g^2*j*m \\
& ^2 + 9*a*b^5*c^2*d^2*g*j^2*m - 3*a^4*b^2*c^2*d*h*j*l^3 - 3*a^2*b^3*c^3*f^3* \\
& g*h*m - 3*a^2*b^2*c^4*e^3*h*j*k + 18*a^4*b*c^3*f*g*h^2*l^2 + 18*a^3*b*c^4*e \\
& ^2*g*h^2*m + 18*a^3*b*c^4*d^2*h*j*k^2 + 18*a^3*b*c^4*d^2*f*k^2*l + 18*a^3*b \\
& *c^4*d^2*e*k^2*m + 9*a^4*b*c^3*e*g^2*h*m^2 + 9*a^4*b*c^3*e*f*j^2*l^2 + 9*a^ \\
& 4*b*c^3*d*g*j^2*l^2 + 9*a^3*b^2*c^3*f*g*h^3*l + 9*a^3*b^2*c^3*e*g*h^3*m + 9 \\
& *a^3*b*c^4*f^2*g^2*h*l + 9*a^3*b*c^4*e^2*g*j^2*k + 9*a^3*b*c^4*e^2*f*j^2*l \\
& - 9*a^2*b^3*c^3*d*g^3*j*l + 9*a*b^4*c^3*d^2*g^2*j*l - 3*a^4*b^2*c^2*f*g*h*l \\
& ^3 - 3*a^3*b^3*c^2*e*g*j*k^3 - 3*a^3*b^3*c^2*d*h*j*k^3 - 3*a^3*b^3*c^2*d*f* \\
& k^3*l - 3*a^3*b^3*c^2*d*e*k^3*m - 3*a^2*b^2*c^4*e^3*g*h*m - 33*a^3*b^2*c^3* \\
& d*e*j^3*m - 27*a^4*b*c^3*e*f*h^2*m^2 - 27*a^3*b*c^4*d^2*e*k*l^2 - 18*a^4*b* \\
& c^3*d*e*j^2*m^2 - 18*a^3*b*c^4*e*f^2*j^2*k - 18*a^3*b*c^4*d*f^2*j^2*l - 9*a \\
& ^4*b^2*c^2*d*e*j*m^3 + 9*a^4*b*c^3*d*g*h^2*m^2 + 9*a^4*b*c^3*d*e*k^2*l^2 + \\
& 9*a^3*b*c^4*f^2*g*h^2*k + 9*a^3*b*c^4*e^2*f*j*k^2 + 9*a^3*b*c^4*d^2*f*j*l^2 \\
& + 9*a^3*b*c^4*e*f^2*h^2*m + 9*a^3*b*c^4*d*e^2*k^2*l - 9*a^2*b^5*c*d*e*j^2* \\
& m^2 + 9*a^2*b^4*c^2*d*e*j^3*m - 9*a^2*b^3*c^3*d*g^3*h*m + 9*a^2*b*c^5*d^2*e \\
& ^2*k*l + 9*a^2*b*c^5*d^2*e^2*j*m + 9*a*b^4*c^3*d^2*g^2*h*m - 6*a^3*b^2*c^3* \\
& d*g*j^3*k - 3*a^3*b^3*c^2*f*g*h*k^3 + 3*a^3*b^2*c^3*e*f*j^3*k + 3*a^3*b^2*c \\
& ^3*d*f*j^3*l + 3*a^2*b^2*c^4*e*f^3*j*k + 3*a^2*b^2*c^4*d*f^3*j*l + 45*a^3*b \\
& *c^4*d^2*g*h*l^2 + 36*a^4*b^2*c^2*e*f*g*m^3 + 36*a^4*b^2*c^2*d*f*h*m^3 - 27 \\
& *a^3*b*c^4*e^2*g*h*k^2 - 27*a^3*b*c^4*d*g^2*h^2*l - 18*a^3*b*c^4*f^2*g*h*j^ \\
& 2 + 18*a^3*b*c^4*d*e^2*j*l^2 + 15*a^3*b^3*c^2*d*e*j*l^3 + 12*a^2*b^2*c^4*e* \\
& f^3*g*m + 12*a^2*b^2*c^4*d*f^3*h*m + 9*a^3*b*c^4*f*g^2*h^2*j + 9*a^3*b*c^4* \\
& e*g^2*h^2*k + 9*a^3*b*c^4*d*f^2*j*k^2 + 9*a^2*b*c^5*d^2*f^2*j*k + 9*a*b^5*c \\
& ^2*d^2*g*h*l^2 - 9*a*b^4*c^3*d^2*g*h^2*l - 6*a^2*b^2*c^4*e*f^3*h*l + 3*a^3* \\
& b^2*c^3*f*g*h*j^3 + 3*a^2*b^2*c^4*f^3*g*h*j + 45*a^3*b*c^4*d^2*f*g*m^2 - 27 \\
& *a^2*b*c^5*d^2*f^2*g*m + 18*a^3*b*c^4*e^2*f*g*l^2 + 15*a^3*b^3*c^2*e*f*g*l^ \\
& 3 - 12*a^3*b^2*c^3*d*e*j*k^3 + 9*a^3*b*c^4*d^2*e*h*m^2 + 9*a^3*b*c^4*e*g^2* \\
& h*j^2 + 9*a^3*b*c^4*e*f^2*h*k^2 - 9*a^2*b^3*c^3*d*f*h^3*l + 9*a^2*b*c^5*d^2 \\
& *f^2*h*l + 9*a*b^5*c^2*d^2*f*g*m^2 + 9*a*b^3*c^4*d^2*f^2*g*m + 6*a^3*b^3*c^ \\
& 2*d*f*h*l^3 + 3*a^2*b^4*c^2*d*e*j*k^3 + 18*a^3*b*c^4*e*f*g^2*k^2 + 18*a^2*b \\
& *c^5*d^2*g^2*h*j + 18*a^2*b*c^5*d^2*f*g^2*l + 18*a^2*b*c^5*d^2*e*g^2*m - 12 \\
& *a^3*b^2*c^3*d*f*h*k^3 + 9*a^3*b*c^4*e*f*h^2*j^2 + 9*a^3*b*c^4*d*f^2*g*l^2 \\
& + 9*a^3*b*c^4*d*e^2*g*m^2 + 9*a^3*b*c^4*d*g*h^2*j^2 + 9*a^2*b^2*c^4*e*f*g^3 \\
& *k + 9*a^2*b^2*c^4*d*g^3*h*j + 9*a^2*b^2*c^4*d*f*g^3*l + 9*a^2*b^2*c^4*d*e* \\
& g^3*m + 9*a^2*b*c^5*e^2*f^2*h*j + 9*a^2*b*c^5*e^2*f^2*g*k - 9*a*b^3*c^4*d^2 \\
& *g^2*h*j - 9*a*b^3*c^4*d^2*f*g^2*l - 9*a*b^3*c^4*d^2*e*g^2*m - 3*a^3*b^2*c^ \\
& 3*e*f*g*k^3 + 3*a^2*b^4*c^2*e*f*g*k^3 + 3*a^2*b^4*c^2*d*f*h*k^3 - 54*a^3*b* \\
& c^4*d*e*f^2*m^2 - 51*a^3*b^3*c^2*d*e*f*m^3 - 27*a^3*b*c^4*d*e*g^2*l^2 + 9*a \\
& ^3*b*c^4*d*e*h^2*k^2 + 9*a^2*b*c^5*e^2*f*g^2*j + 9*a^2*b*c^5*d^2*f*h^2*j + \\
& 9*a^2*b*c^5*d^2*e*h^2*k + 9*a^2*b*c^5*d*e^2*g^2*l - 9*a*b^5*c^2*d*e*f^2*m^2 \\
& - 9*a*b^4*c^3*d^2*e*g*l^2 - 9*a*b^2*c^5*d^2*e^2*g*l - 9*a*b^2*c^5*d^2*e^2* \\
& f*m - 3*a^2*b^3*c^3*e*f*g*j^3 - 3*a^2*b^3*c^3*d*f*h*j^3 + 36*a^3*b^2*c^3*d* \\
& e*f*l^3 - 27*a^2*b*c^5*d^2*f*g*j^2 - 18*a^2*b^4*c^2*d*e*f*l^3 - 18*a^2*b*c^ \\
& 5*d*e^2*h^2*j + 9*a^2*b*c^5*d^2*e*h*j^2 + 9*a^2*b*c^5*d*f^2*g^2*j + 9*a*b^4 \\
& *c^3*d*e^2*f*l^2 + 9*a*b^3*c^4*d^2*f*g*j^2 - 9*a*b^2*c^5*d^2*f^2*g*j - 9*a* \\
& b^2*c^5*d^2*e*f^2*l + 3*a^2*b^2*c^4*d*e*h^3*j - 18*a^2*b*c^5*e^2*f*g*h^2 + \\
& 18*a^2*b*c^5*d^2*e*f*k^2 + 15*a^2*b^3*c^3*d*e*f*k^3 + 9*a^2*b*c^5*e*f^2*g^2 \\
& *h + 9*a^2*b*c^5*d*e^2*g*j^2 - 9*a*b^3*c^4*d^2*e*f*k^2 + 9*a*b^2*c^5*d^2*e* \\
& g^2*j - 9*a*b^2*c^5*d*e^2*f^2*k + 3*a^2*b^2*c^4*e*f*g*h^3 + 18*a^2*b*c^5*d* \\
& e*f^2*j^2 + 9*a^2*b*c^5*d*f^2*g*h^2 - 9*a*b^3*c^4*d*e*f^2*j^2 + 9*a*b^2*c^5 \\
& *d^2*f*g^2*h - 3*a^2*b^2*c^4*d*e*f*j^3 + 9*a^2*b*c^5*d*e*g^2*h^2 - 9*a*b^2* \\
& c^5*d^2*e*g*h^2 + 9*a*b^2*c^5*d*e^2*f*h^2 - 36*a^6*c^2*f*j*k*l*m^2 + 36*a^5 \\
& *c^3*f^2*j*k*l*m - 36*a^5*c^3*f*h^2*j*l*m + 36*a^5*c^3*e*h*j^2*l*m - 18*a^6 \\
& *b*c*j^2*k*l*m^2 + 9*a^6*b*c*j*k^2*l^2*m + 3*a^5*b^2*c*j^3*k*l*m - 36*a^5*c \\
& ^3*f*g*j*k^2*m - 36*a^5*c^3*e*f*k^2*l*m + 36*a^5*c^3*d*g*k^2*l*m - 36*a^4*c
\end{aligned}$$

$$\begin{aligned}
& ^4d^2g^*k^*l^*m - 36a^5c^3e^*h^*j^*k^*l^2 - 36a^5c^3e^*f^*j^*l^2m - 36a^5c^3d^*f^*k^*l^2m + 36a^4c^4e^2h^*j^*k^*l + 36a^4c^4e^2f^*j^*l^2m + 9a^6b^*c^*h^*k^2l^2m - 3a^4b^3c^*h^3k^*l^2m - 36a^5c^3e^*g^*h^*l^2m + 36a^5c^3e^*f^*j^*k^*m^2 - 36a^5c^3d^*g^*j^*k^*m^2 + 36a^5c^3d^*f^*j^*l^2m - 36a^5c^3d^*e^*k^*l^2m + 36a^4c^4e^2g^*h^*l^2m - 36a^4c^4e^2f^2j^*k^*m - 36a^4c^4d^*f^2j^*l^2m + 9a^6b^*c^*h^*j^*l^2m^2 + 9a^6b^*c^*g^*k^*l^2m^2 + 9a^5b^2c^*g^*k^3l^2m + 3a^3b^4c^*g^3k^*l^2m + 36a^5c^3f^*g^*h^*j^*m^2 + 36a^5c^3e^*f^*h^*l^2m - 36a^4c^4f^2g^*h^*j^*m - 36a^4c^4e^2f^2h^*l^2m - 24a^4b^*c^3f^3k^*l^2m - 12a^5b^*c^2h^*j^3k^*m - 12a^5b^*c^2g^*j^3l^2m - 3a^2b^5c^*f^3k^*l^2m - 36a^4c^4e^*g^2h^*k^*l - 36a^4c^4e^*f^*g^2l^2m + 12a^5b^2c^*e^*k^*l^3m - 6a^5b^2c^*f^*j^*l^3m + 3a^5b^2c^*h^*j^*k^*l^3 + 48a^3b^*c^4d^3k^*l^2m + 36a^4c^4e^*f^*h^2j^*m + 36a^4c^4d^*g^*h^2k^*l - 36a^4c^4d^*f^*h^2k^*m - 36a^4c^4d^*e^*j^2k^*l + 24a^5b^*c^2d^*k^3l^2m + 21a^*b^5c^2d^3k^*l^2m - 12a^5b^*c^2g^*j^*k^3l - 9a^4b^3c^*d^*k^3l^2m + 6a^5b^*c^2f^*j^*k^3m + 3a^5b^2c^*g^*h^*l^3m - 36a^4c^4e^*f^*h^*j^2l - 12a^5b^*c^2g^*h^*k^3m - 3a^5b^2c^*e^*j^*k^*m^3 - 3a^5b^2c^*d^*j^*l^2m^3 - 36a^4c^4d^*g^*h^*j^*k^2 - 36a^4c^4d^*f^*g^*k^2l - 36a^4c^4d^*e^*h^*k^2l - 36a^4c^4d^*e^*g^*k^2m + 36a^3c^5d^2g^*h^*j^*k + 36a^3c^5d^2f^*g^*k^*l - 36a^3c^5d^2f^*g^*j^*m + 36a^3c^5d^2e^*h^*k^*l + 36a^3c^5d^2e^*g^*k^*m - 36a^3c^5d^2e^*f^*l^2m + 24a^5b^2c^*e^*h^*l^2m^3 - 24a^3b^*c^4e^3j^*k^*l - 12a^5b^2c^*f^*h^*k^*m^3 - 12a^5b^2c^*f^*g^*l^2m^3 - 3a^5b^2c^*g^*h^*j^*m^3 - 3a^4b^3c^*e^*j^*k^*l^3 - 3a^*b^5c^2e^3j^*k^*l + 36a^4c^4d^*e^*h^*j^*l^2 + 36a^4c^4d^*e^*g^*k^*l^2 - 36a^3c^5d^2e^2h^*j^*l - 36a^3c^5d^2e^2g^*k^*l - 36a^3c^5d^2e^2f^*k^*m + 24a^4b^*c^3e^*h^3k^*m - 24a^3b^*c^4e^3g^*l^2m - 18a^*b^4c^3d^3j^*k^*l - 12a^4b^*c^3g^*h^3j^*l - 12a^4b^*c^3f^*h^3k^*l - 12a^4b^*c^3d^*h^3l^2m + 12a^3b^*c^4e^3h^*k^*m + 6a^4b^*c^3f^*h^3j^*m - 3a^4b^3c^*g^*h^*j^*l^3 - 3a^4b^3c^*f^*h^*k^*l^3 - 3a^4b^3c^*e^*g^*l^3m - 3a^4b^3c^*d^*h^*l^3m - 3a^*b^5c^2e^3h^*k^*m - 3a^*b^5c^2e^3g^*l^2m + 36a^4c^4e^*f^*g^*h^*l^2 - 36a^4c^4d^*e^*f^*j^*m^2 - 36a^3c^5e^2f^*g^*h^*l - 36a^3c^5d^*f^2g^*j^*k - 36a^3c^5d^*e^*f^2k^*l + 36a^3c^5d^*e^*f^2j^*m - 18a^*b^4c^3d^3h^*k^*m - 9a^*b^4c^3d^3g^*l^2m + 30a^5b^*c^2d^*g^*k^*m^3 - 30a^4b^3c^*d^*g^*k^*m^3 - 24a^5b^*c^2e^*f^*k^*m^3 - 24a^5b^*c^2d^*f^*l^2m^3 + 24a^4b^*c^3e^*g^*j^3m + 24a^4b^*c^3d^*h^*j^3m + 15a^4b^3c^*e^*f^*k^*m^3 + 15a^4b^3c^*d^*f^*l^2m^3 + 12a^5b^*c^2e^*g^*j^3m + 12a^5b^*c^2d^*h^*j^3m - 12a^4b^*c^3f^*h^*j^3k - 12a^4b^*c^3f^*g^*j^3l + 6a^4b^3c^*e^*g^*j^3m + 6a^4b^3c^*d^*h^*j^3m + 6a^4b^*c^3e^*h^*j^3l + 36a^3c^5d^*e^*g^2h^*l - 24a^5b^*c^2f^*g^*h^*m^3 + 15a^4b^3c^*f^*g^*h^*m^3 - 9a^*b^6c^*d^2g^*j^*m^2 - 6a^3b^4c^*d^*g^*k^*l^3 - 6a^*b^4c^3e^3f^*j^*m + 3a^3b^4c^*e^*g^*j^*l^3 + 3a^3b^4c^*e^*f^*k^*l^3 + 3a^3b^4c^*d^*h^*j^*l^3 + 3a^3b^4c^*d^*e^*l^3m + 3a^*b^4c^3e^3h^*j^*k + 3a^*b^4c^3e^3g^*j^*l + 3a^*b^4c^3e^3f^*k^*l + 3a^*b^4c^3d^*e^3l^2m - 36a^3c^5d^*e^*g^*h^2k^*l + 30a^2b^*c^5d^3f^*j^*m - 30a^*b^3c^4d^3f^*j^*m + 24a^3b^*c^4d^*g^3j^*l - 24a^2b^*c^5d^3h^*j^*k - 24a^2b^*c^5d^3f^*k^*l - 24a^2b^*c^5d^3e^*k^*m + 15a^*b^3c^4d^3h^*j^*k + 15a^*b^3c^4d^3f^*k^*l + 15a^*b^3c^4d^3e^*k^*m - 12a^3b^*c^4e^*g^3j^*k + 12a^2b^*c^5d^3g^*j^*l + 6a^*b^3c^4d^3g^*j^*l + 3a^3b^4c^*f^*g^*h^*l^3 + 3a^*b^4c^3e^3g^*h^*m + 24a^3b^*c^4d^*g^3h^*m - 12a^3b^*c^4f^*g^3h^*k + 12a^2b^*c^5d^3g^*h^*m - 9a^3b^4c^*d^*e^*j^*m^3 + 6a^3b^*c^4e^*g^3h^*l + 6a^*b^3c^4d^3g^*h^*m + 36a^3c^5d^*e^*f^*g^*k^2 - 36a^2c^6d^2e^*f^*g^*k - 24a^4b^*c^3d^*e^*j^*l^3 - 18a^3b^4c^*e^*f^*g^*m^3 - 18a^3b^4c^*d^*f^*h^*m^3 - 3a^2b^5c^*d^*e^*j^*l^3 - 3a^*b^3c^4d^*e^3j^*l - 24a^4b^*c^3e^*f^*g^*l^3 + 24a^3b^*c^4d^*f^*h^3l + 12a^4b^*c^3d^*f^*h^*l^3 - 12a^3b^*c^4e^*g^*h^3j - 12a^3b^*c^4e^*f^*h^3k - 12a^3b^*c^4d^*e^*h^3m - 12a^*b^2c^5d^3e^*j^*k + 6a^3b^*c^4d^*g^*h^3k - 3a^2b^5c^*e^*f^*g^*l^3 - 3a^2b^5c^*d^*f^*h^*l^3 - 3a^*b^3c^4e^3g^*h^*j - 3a^*b^3c^4e^3f^*h^*k - 3a^*b^3c^4e^3f^*g^*l - 3a^*b^3c^4d^*e^3h^*m + 24a^*b^2c^5d^3e^*h^*l - 12a^*b^2c^5d^3f^*h^*k - 3a^*b^2c^5d^3g^*h^*j - 3a^*b^2c^5d^3f^*g^*l - 3a^*b^2c^5d^3e^*g^*m + 48a^4b^*c^3d^*e^*f^*m^3 + 24a^2b^*c^5d^*e^*f^3m + 21a^2b^5c^*d^*e^*f^*m^3 - 12a^2b^*c^5e^*f^3g^*j - 12a^2b^*c^5d^*f^3h^*j - 9a^*b^3c^4d^*e^*f^3m + 6a^2b^*c^5d^*f^3g^*k + 12a^*b^2c^5d^*e^3f^*l - 6a^*b^2c^5d^*e^3g^*k + 3a^*b^2c^5d^*e^3h^*j - 24a^3b^*c^4d^*e^*f^*k^3 - 12a^2b^*c^5d^*e^*g^
\end{aligned}$$



$$\begin{aligned}
& 3*j - 3*a*b^5*c^2*d*e*f*k^3 + 3*a*b^2*c^5*e^3*f*g*h - 12*a^2*b*c^5*d*f*g^3* \\
& h + 9*a*b^2*c^5*d*e*f^3*j + 9*a*b*c^6*d^2*e^2*f*j + 3*a*b^4*c^3*d*e*f*j^3 + \\
& 9*a*b*c^6*d^2*e^2*g*h + 9*a*b*c^6*d^2*e^2*f^2*h - 3*a*b^3*c^4*d*e*f*h^3 - 18 \\
& *a*b*c^6*d^2*e^2*f*g^2 + 9*a*b*c^6*d^2*e^2*f^2*g + 3*a*b^2*c^5*d*e*f*g^3 - 36*a \\
& ^4*b^2*c^2*e^2*k^1^2*m - 9*a^4*b^2*c^2*g^2*j^2*k*m + 45*a^3*b^3*c^2*d^2*k^2 \\
& *1*m + 36*a^4*b^2*c^2*e^2*j*1*m^2 + 9*a^4*b^2*c^2*g^2*j*k^2*1 + 9*a^3*b^3*c \\
& ^2*e^2*j^2*1*m + 9*a^4*b^2*c^2*g^2*h*k^2*m - 9*a^4*b^2*c^2*f^2*h*1^2*m - 9* \\
& a^3*b^3*c^2*f^2*j^2*k*1 - 45*a^3*b^3*c^2*d^2*j*k*m^2 + 36*a^3*b^2*c^3*d^2*j \\
& ^2*k*m + 18*a^4*b^2*c^2*f^2*h*k*m^2 + 18*a^4*b^2*c^2*f^2*g*1*m^2 - 9*a^4*b^ \\
& 2*c^2*g^2*h*k*1^2 - 9*a^4*b^2*c^2*f^2*h^2*k^2*m - 9*a^4*b^2*c^2*f^2*g^2*1^2*m - \\
& 9*a^4*b^2*c^2*e^2*j^2*k^2*1 - 9*a^4*b^2*c^2*d^2*j^2*k^2*m - 9*a^3*b^3*c^2*e^2* \\
& j*k*1^2 - 9*a^2*b^4*c^2*d^2*j^2*k*m - 36*a^3*b^2*c^3*d^2*j*k^2*1 - 27*a^3*b \\
& ^2*c^3*e^2*h^2*k*m + 9*a^4*b^2*c^2*g^2*h^2*j*1^2 + 9*a^4*b^2*c^2*f^2*h^2*k*1^2 \\
& - 9*a^4*b^2*c^2*f^2*g^2*k*m^2 - 9*a^4*b^2*c^2*e^2*g^2*1*m^2 - 9*a^4*b^2*c^2*d^2*j \\
& ^2*k*1^2 + 9*a^4*b^2*c^2*d^2*h^2*1^2*m - 9*a^3*b^3*c^2*e^2*g*1^2*m + 9*a^2*b^ \\
& 4*c^2*e^2*h^2*k*m + 9*a^2*b^4*c^2*d^2*j*k^2*1 - 45*a^3*b^3*c^2*e^2*h*j*m^2 \\
& + 36*a^4*b^2*c^2*e^2*h^2*j*m^2 + 36*a^3*b^2*c^3*e^2*h*j^2*m - 36*a^3*b^2*c^3*d \\
& ^2*h*k^2*m + 36*a^2*b^3*c^3*d^2*g^2*1*m - 9*a^4*b^2*c^2*f^2*h*j^2*1^2 - 9*a^ \\
& 4*b^2*c^2*d^2*h^2*k*m^2 + 9*a^3*b^3*c^2*f^2*h*j*1^2 + 9*a^3*b^3*c^2*e^2*f*1*m \\
& ^2 + 9*a^3*b^3*c^2*e^2*h^2*j^2*m - 9*a^3*b^2*c^3*f^2*h^2*j*1 - 9*a^2*b^4*c^2* \\
& e^2*h*j^2*m + 9*a^2*b^4*c^2*d^2*h*k^2*m + 36*a^3*b^2*c^3*d^2*h*k*1^2 - 27*a \\
& ^4*b^2*c^2*e^2*g*j^2*m^2 - 27*a^4*b^2*c^2*d^2*h*j^2*m^2 - 9*a^4*b^2*c^2*d^2*h*k^2 \\
& *1^2 - 9*a^3*b^3*c^2*e^2*f^2*k*m^2 - 9*a^3*b^3*c^2*d^2*f^2*1*m^2 + 9*a^3*b^2*c^ \\
& 3*f^2*h*j^2*k + 9*a^3*b^2*c^3*f^2*g*j^2*1 - 9*a^3*b^2*c^3*e^2*g*k^2*1 - 9*a \\
& ^3*b^2*c^3*e^2*f*k^2*m - 9*a^3*b^2*c^3*d^2*f*1^2*m - 9*a^2*b^4*c^2*d^2*h*k* \\
& 1^2 + 9*a^2*b^3*c^3*d^2*h^2*k*1 - 81*a^3*b^2*c^3*d^2*g*j*m^2 + 54*a^2*b^4*c \\
& ^2*d^2*g*j*m^2 - 45*a^3*b^3*c^2*d^2*g^2*j*m^2 - 45*a^2*b^3*c^3*d^2*g*j^2*m + \\
& 36*a^3*b^2*c^3*d^2*f*k*m^2 + 36*a^3*b^2*c^3*d^2*g^2*j^2*m + 18*a^3*b^2*c^3*e^ \\
& 2*g*j*1^2 + 18*a^3*b^2*c^3*e^2*f*k*1^2 + 18*a^3*b^2*c^3*d^2*e^2*1^2*m - 9*a^4 \\
& *b^2*c^2*d^2*f*k^2*m^2 - 9*a^3*b^3*c^2*f^2*g^2*h*m^2 - 9*a^3*b^3*c^2*d^2*h^2*j*1^ \\
& 2 - 9*a^3*b^2*c^3*f^2*g^2*j*k^2 - 9*a^3*b^2*c^3*d^2*e^2*1*m^2 - 9*a^3*b^2*c^3*f \\
& *g^2*h^2*m - 9*a^3*b^2*c^3*e^2*g^2*j^2*1 - 9*a^3*b^2*c^3*e^2*f^2*k^2*1 - 9*a^2* \\
& b^4*c^2*d^2*f*k*m^2 - 9*a^2*b^4*c^2*d^2*g^2*j^2*m - 9*a^2*b^3*c^3*e^2*h^2*j*k \\
& - 9*a^2*b^2*c^4*d^2*f^2*k*m - 27*a^2*b^2*c^4*d^2*g^2*j*1 - 9*a^3*b^3*c^2*f \\
& *g^2*h^2*1^2 + 9*a^3*b^2*c^3*e^2*g^2*j*k^2 - 9*a^3*b^2*c^3*e^2*f^2*j*1^2 - 9*a^3* \\
& b^2*c^3*d^2*h^2*j^2*k - 9*a^3*b^2*c^3*d^2*f^2*k*1^2 - 9*a^3*b^2*c^3*d^2*e^2*k*m^2 \\
& - 9*a^2*b^3*c^3*e^2*g^2*h^2*m - 9*a^2*b^3*c^3*d^2*h*j*k^2 - 9*a^2*b^3*c^3*d^ \\
& 2*f*k^2*1 - 9*a^2*b^3*c^3*d^2*e^2*k^2*m + 36*a^3*b^3*c^2*d^2*e^2*j^2*m^2 + 36*a^3 \\
& *b^2*c^3*e^2*f^2*h*m^2 - 27*a^2*b^2*c^4*d^2*g^2*h*m + 9*a^3*b^3*c^2*e^2*f^2*h^2*m \\
& ^2 + 9*a^3*b^2*c^3*f^2*g^2*h*k^2 - 9*a^2*b^4*c^2*e^2*f^2*h*m^2 + 9*a^2*b^3*c^3* \\
& d^2*e^2*k*1^2 - 9*a^2*b^2*c^4*e^2*f^2*h*m - 45*a^2*b^3*c^3*d^2*g^2*h*1^2 - 36*a \\
& ^3*b^2*c^3*e^2*f^2*g^2*m^2 + 36*a^3*b^2*c^3*d^2*g^2*h*1^2 - 36*a^3*b^2*c^3*d^2*f^ \\
& 2*h*m^2 + 36*a^2*b^2*c^4*d^2*g^2*h^2*1 - 9*a^3*b^2*c^3*e^2*g^2*h^2*k^2 + 9*a^2*b^4* \\
& c^2*e^2*f^2*g^2*m^2 - 9*a^2*b^4*c^2*d^2*g^2*h*1^2 + 9*a^2*b^4*c^2*d^2*f^2*h*m^2 + 9 \\
& *a^2*b^3*c^3*e^2*g^2*h*k^2 + 9*a^2*b^3*c^3*d^2*g^2*h^2*1 - 9*a^2*b^3*c^3*d^2*e^2* \\
& j*1^2 - 9*a^2*b^2*c^4*e^2*g^2*h*k - 9*a^2*b^2*c^4*e^2*f^2*g^2*m - 9*a^2*b^2*c \\
& ^4*d^2*f^2*j^2*k - 9*a^2*b^2*c^4*d^2*f^2*h^2*m - 9*a^2*b^2*c^4*d^2*e^2*j^2*1 - 45 \\
& *a^2*b^3*c^3*d^2*f^2*g^2*m^2 + 36*a^3*b^2*c^3*d^2*f^2*g^2*m^2 - 27*a^3*b^2*c^3*d^2*f^ \\
& h^2*1^2 + 18*a^2*b^2*c^4*d^2*e^2*j*k^2 + 9*a^2*b^4*c^2*d^2*f^2*h^2*1^2 - 9*a^2*b^ \\
& 4*c^2*d^2*f^2*g^2*m^2 - 9*a^2*b^3*c^3*e^2*f^2*g*1^2 + 9*a^2*b^2*c^4*e^2*g^2*h^2*j + \\
& 9*a^2*b^2*c^4*e^2*f^2*h^2*k - 9*a^2*b^2*c^4*e^2*f^2*g^2*1 - 9*a^2*b^2*c^4*d^2*f^ \\
& 2*g^2*m - 9*a^2*b^2*c^4*d^2*e^2*j^2*k + 9*a^2*b^2*c^4*d^2*e^2*h^2*m + 18*a^4*b^ \\
& 2*c^2*f^2*j^2*m^2 + 18*a^3*b^2*c^3*e^2*h^2*1^2 - 9*a^2*b^4*c^2*e^2*h^2*1^2 \\
& + 18*a^2*b^2*c^4*d^2*g^2*k^2 + 12*a^6*c^2*j^3*k*1*m + 3*a^6*b^2*j*k*1*m^3 - \\
& 12*a^6*c^2*g^3*k*1*m - 12*a^5*c^3*g^3*k*1*m - 24*a^6*c^2*e^2*k*1^3*m - 24*a^ \\
& 4*c^4*e^3*k*1*m + 12*a^6*c^2*h^3*j*k*1^3 + 12*a^6*c^2*f^3*j*1^3*m + 12*a^5*c^3* \\
& h^3*j*k*1 - 3*a^5*b^3*h^3*j*k*m^3 - 3*a^5*b^3*g^3*j*1*m^3 - 3*a^5*b^3*f^3*k*1*m^3 \\
& + 12*a^6*c^2*g^2*h*1^3*m + 12*a^5*c^3*g^2*h^3*1*m - 12*a^6*c^2*e^2*j*k*m^3 - 12* \\
& a^6*c^2*d^2*j*1*m^3 - 12*a^5*c^3*f^3*j^3*k*1 - 12*a^5*c^3*e^2*j^3*k*m - 12*a^5*c^
\end{aligned}$$

$$\begin{aligned}
& 3*d*j^3*l*m - 12*a^4*c^4*f^3*j*k*l + 24*a^6*c^2*f*h*k*m^3 + 24*a^6*c^2*f*g* \\
& l*m^3 + 24*a^4*c^4*f^3*h*k*m + 24*a^4*c^4*f^3*g*l*m - 12*a^6*c^2*g*h*j*m^3 \\
& - 12*a^6*c^2*e*h*l*m^3 - 12*a^5*c^3*g*h*j^3*m + 3*b^6*c^2*d^3*j*k*l + 3*a^4 \\
& *b^4*e*j*k*m^3 + 3*a^4*b^4*d*j*l*m^3 - 24*a^5*c^3*d*j*k^3*l - 24*a^3*c^5*d^ \\
& 3*j*k*l - 6*a^4*b^4*e*h*l*m^3 + 3*b^6*c^2*d^3*h*k*m + 3*b^6*c^2*d^3*g*l*m + \\
& 3*a^6*b*c*j^2*l^3*m + 3*a^4*b^4*g*h*j*m^3 + 3*a^4*b^4*f*h*k*m^3 + 3*a^4*b^ \\
& 4*f*g*l*m^3 - 24*a^5*c^3*d*h*k^3*m - 24*a^3*c^5*d^3*h*k*m + 12*a^5*c^3*g*h* \\
& j*k^3 + 12*a^5*c^3*f*g*k^3*l + 12*a^5*c^3*e*h*k^3*l + 12*a^5*c^3*e*g*k^3*m \\
& + 12*a^4*c^4*g^3*h*j*k + 12*a^4*c^4*f*g^3*k*l + 12*a^4*c^4*f*g^3*j*m + 12*a \\
& ^4*c^4*e*g^3*k*m + 12*a^4*c^4*d*g^3*l*m + 12*a^3*c^5*d^3*g*l*m + 3*a^6*b*c* \\
& j*k^3*m^2 - 9*a^6*b*c*h^2*l*m^3 - 3*a^5*b*c^2*j^4*k*l + 24*a^5*c^3*e*g*j*l^ \\
& 3 + 24*a^5*c^3*e*f*k*l^3 + 24*a^5*c^3*d*e*l^3*m + 24*a^3*c^5*e^3*g*j*l + 24 \\
& *a^3*c^5*e^3*f*k*l + 24*a^3*c^5*d*e^3*l*m - 12*a^5*c^3*d*h*j*l^3 - 12*a^5*c \\
& ^3*d*g*k*l^3 - 12*a^4*c^4*e*h^3*j*k - 12*a^4*c^4*d*h^3*j*l - 12*a^3*c^5*e^3 \\
& *h*j*k - 12*a^3*c^5*e^3*f*j*m + 9*a^4*b*c^3*g^4*l*m + 6*b^5*c^3*d^3*f*j*m + \\
& 6*a^3*b^5*d*g*k*m^3 - 3*b^5*c^3*d^3*h*j*k - 3*b^5*c^3*d^3*g*j*l - 3*b^5*c^ \\
& 3*d^3*f*k*l - 3*b^5*c^3*d^3*e*k*m - 3*a^3*b^5*e*g*j*m^3 - 3*a^3*b^5*e*f*k*m \\
& ^3 - 3*a^3*b^5*d*h*j*m^3 - 3*a^3*b^5*d*f*l*m^3 - 12*a^5*c^3*f*g*h*l^3 - 12* \\
& a^4*c^4*f*g*h^3*l - 12*a^4*c^4*e*g*h^3*m - 12*a^3*c^5*e^3*g*h*m - 9*a^6*b*c \\
& *g*k^2*m^3 - 3*b^5*c^3*d^3*g*h*m + 3*a^6*b*c*f*l^3*m^2 - 3*a^3*b^5*f*g*h*m^ \\
& 3 + 12*a^5*c^3*d*e*j*m^3 + 12*a^4*c^4*e*f*j^3*k + 12*a^4*c^4*d*g*j^3*k + 12 \\
& *a^4*c^4*d*f*j^3*l + 12*a^4*c^4*d*e*j^3*m + 12*a^3*c^5*e*f^3*j*k + 12*a^3*c \\
& ^5*d*f^3*j*l - 9*a^6*b*c*e*l^2*m^3 - 24*a^5*c^3*e*f*g*m^3 - 24*a^5*c^3*d*f* \\
& h*m^3 - 24*a^3*c^5*e*f^3*g*m - 24*a^3*c^5*d*f^3*h*m - 15*a^2*b*c^5*d^4*l*m \\
& + 15*a*b^3*c^4*d^4*l*m + 12*a^4*c^4*f*g*h*j^3 + 12*a^3*c^5*f^3*g*h*j + 12*a \\
& ^3*c^5*e*f^3*h*l + 9*a^3*b*c^4*f^4*k*l - 9*a^3*b*c^4*f^4*j*m + 3*b^4*c^4*d^ \\
& 3*e*j*k + 3*a^5*b^2*c*g*j*l^4 + 3*a^5*b^2*c*f*k*l^4 + 3*a^5*b^2*c*d*l^4*m - \\
& 3*a^5*b*c^2*h*j*k^4 - 3*a^5*b*c^2*f*k^4*l - 3*a^5*b*c^2*e*k^4*m - 3*a^4*b* \\
& c^3*h^4*j*k + 3*a^2*b^6*d*e*j*m^3 + 3*a*b^4*c^3*e^4*k*m + 24*a^4*c^4*d*e*j* \\
& k^3 + 24*a^2*c^6*d^3*e*j*k - 6*b^4*c^4*d^3*e*h*l + 3*b^4*c^4*d^3*g*h*j + 3* \\
& b^4*c^4*d^3*f*h*k + 3*b^4*c^4*d^3*f*g*l + 3*b^4*c^4*d^3*e*g*m - 3*a^4*b*c^3 \\
& *g*h^4*m + 3*a^2*b^6*e*f*g*m^3 + 3*a^2*b^6*d*f*h*m^3 - 3*a*b^6*c*e^3*j*m^2 \\
& + 24*a^4*c^4*d*f*h*k^3 + 24*a^2*c^6*d^3*f*h*k - 12*a^4*c^4*e*f*g*k^3 - 12*a \\
& ^3*c^5*e*f*g^3*k - 12*a^3*c^5*d*g^3*h*j - 12*a^3*c^5*d*f*g^3*l - 12*a^3*c^5 \\
& *d*e*g^3*m - 12*a^2*c^6*d^3*g*h*j - 12*a^2*c^6*d^3*f*g*l - 12*a^2*c^6*d^3*e \\
& *h*l - 12*a^2*c^6*d^3*e*g*m - 12*a*b^2*c^5*d^4*j*l + 9*a^5*b*c^2*d*j*l^4 + \\
& 9*a^2*b*c^5*e^4*j*k - 3*a^4*b^3*c*d*j*l^4 - 3*a^4*b*c^3*e*j^4*k - 3*a^4*b*c \\
& ^3*d*j^4*l - 3*a*b^3*c^4*e^4*j*k - 24*a^4*c^4*d*e*f*l^3 - 24*a^2*c^6*d*e^3* \\
& f*l - 12*a^5*b^2*c*e*g*m^4 - 12*a^5*b^2*c*d*h*m^4 + 12*a^3*c^5*d*e*h^3*j + \\
& 12*a^2*c^6*d*e^3*h*j + 12*a^2*c^6*d*e^3*g*k - 12*a*b^2*c^5*d^4*h*m + 9*a^5* \\
& b*c^2*f*g*l^4 - 9*a^5*b*c^2*e*h*l^4 - 9*a^2*b*c^5*e^4*h*l + 9*a^2*b*c^5*e^4 \\
& *g*m + 6*a^4*b^3*c*e*h*l^4 + 6*a*b^3*c^4*e^4*h*l - 3*b^3*c^5*d^3*e*g*j - 3* \\
& b^3*c^5*d^3*e*f*k - 3*a^4*b^3*c*f*g*l^4 - 3*a^4*b*c^3*g*h*j^4 - 3*a^3*b*c^4 \\
& *g^4*h*j - 3*a^3*b*c^4*f*g^4*l - 3*a^3*b*c^4*e*g^4*m - 3*a*b^3*c^4*e^4*g*m \\
& + 12*a^3*c^5*e*f*g*h^3 + 12*a^2*c^6*e^3*f*g*h - 3*b^3*c^5*d^3*f*g*h - 12*a^ \\
& 3*c^5*d*e*f*j^3 - 12*a^2*c^6*d*e*f^3*j - 3*a*b^6*c*d^2*g*l^3 - 15*a^5*b*c^2 \\
& *d*e*m^4 + 15*a^4*b^3*c*d*e*m^4 + 9*a^4*b*c^3*e*f*k^4 - 9*a^4*b*c^3*d*g*k^4 \\
& + 3*a^3*b^4*c*d*f*l^4 - 3*a^3*b*c^4*d*h^4*j - 3*a^2*b*c^5*e*f^4*k - 3*a^2* \\
& b*c^5*d*f^4*l + 3*a*b^2*c^5*e^4*g*j + 3*a*b^2*c^5*e^4*f*k + 3*a*b^2*c^5*d*e \\
& ^4*m - 9*a*b*c^6*d^3*e^2*l + 3*b^2*c^6*d^3*e*f*g - 3*a^3*b*c^4*f*g*h^4 - 3* \\
& a^2*b*c^5*f^4*g*h + 12*a^2*c^6*d*e*f*g^3 - 9*a*b*c^6*d^3*f^2*j + 3*a*b*c^6* \\
& d^2*e^3*k + 9*a^3*b*c^4*d*e*j^4 - 3*a^2*b*c^5*e*f*g^4 - 9*a*b*c^6*d^3*e*h^2 \\
& + 3*a*b*c^6*d^2*f^3*g + 3*a*b*c^6*d*e^3*g^2 - 3*a^4*b^2*c^2*h^3*j^2*m + 12 \\
& *a^4*b^2*c^2*g^3*j*m^2 - 3*a^4*b^2*c^2*f^2*k^3*m + 3*a^3*b^3*c^2*g^3*j^2*m \\
& - 9*a^3*b^4*c*f^2*j^2*m^2 + 9*a^3*b^3*c^2*f^2*j^3*m - 6*a^3*b^3*c^2*f^3*j*m \\
& ^2 - 6*a^3*b^2*c^3*f^3*j^2*m - 3*a^2*b^4*c^2*f^3*j^2*m - 27*a^4*b^2*c^2*d^2 \\
& *k*m^3 - 27*a^3*b^2*c^3*e^3*j*m^2 + 18*a^2*b^4*c^2*e^3*j*m^2 - 15*a^2*b^3*c \\
& ^3*e^3*j^2*m + 12*a^4*b^2*c^2*f^2*j*l^3 + 3*a^3*b^3*c^2*e^2*k^3*l + 42*a^2* \\
& b^3*c^3*d^3*j*m^2 - 27*a^2*b^2*c^4*d^3*j^2*m - 15*a^3*b^3*c^2*d^2*k*l^3 - 3
\end{aligned}$$

$$\begin{aligned}
& a^4 b^2 c^2 f j^2 k^3 - 3 a^4 b^2 c^2 f h^3 m^2 + 3 a^3 b^3 c^2 g^3 h^1 l^2 \\
& + 3 a^3 b^3 c^2 f^2 j k^3 - 3 a^3 b^2 c^3 g^3 h^2 l - 3 a^3 b^2 c^3 e^2 j^3 \\
& * l - 27 a^4 b^2 c^2 e^2 h^3 m^3 + 12 a^3 b^2 c^3 f^3 h^1 l^2 + 3 a^3 b^3 c^2 f * \\
& g^3 m^2 - 3 a^2 b^4 c^2 f^3 h^1 l^2 + 3 a^2 b^3 c^3 f^3 h^2 l + 9 a^3 b^3 c^2 \\
& * e h^3 l^2 + 9 a^2 b^3 c^3 e^2 h^3 l - 6 a^4 b^2 c^2 e h^2 l^3 - 6 a^3 b^3 c^2 \\
& * e^2 h^1 l^3 - 6 a^2 b^3 c^3 e^3 h^1 l^2 - 6 a^2 b^2 c^4 e^3 h^2 l + 3 a^2 b \\
& ^3 c^3 d^2 j^3 k + 42 a^3 b^3 c^2 d^2 g^3 m^3 - 27 a^4 b^2 c^2 d^2 g^2 m^3 - 27 \\
& * a^2 b^2 c^4 d^3 h^1 l^2 - 15 a^2 b^3 c^3 e^3 f^3 m^2 + 12 a^3 b^2 c^3 e^2 h^3 k^ \\
& 3 + 3 a^3 b^3 c^2 e h^2 k^3 - 3 a^3 b^2 c^3 e g^3 l^2 - 3 a^2 b^4 c^2 e^2 h \\
& * k^3 + 3 a^2 b^3 c^3 f^3 g^3 k^2 - 3 a^2 b^2 c^4 f^3 g^2 k - 27 a^3 b^2 c^3 d \\
& ^2 g^3 l^3 - 27 a^2 b^2 c^4 d^3 f^3 m^2 + 18 a^2 b^4 c^2 d^2 g^3 l^3 - 15 a^3 b^3 \\
& * c^2 d^2 g^2 l^3 + 12 a^2 b^2 c^4 e^3 g^3 k^2 - 3 a^3 b^2 c^3 e h^2 j^3 + 3 a^2 \\
& * b^3 c^3 e^2 h^3 j^3 + 3 a^2 b^3 c^3 e f^3 l^2 - 3 a^2 b^2 c^4 d^2 h^3 k + 9 \\
& * a^2 b^3 c^3 d^2 g^3 k^2 - 9 a^3 b^4 c^3 d^2 g^2 k^2 - 6 a^3 b^2 c^3 d^2 g^2 k^3 - \\
& 6 a^2 b^3 c^3 d^2 g^3 k^3 - 3 a^2 b^4 c^2 d^2 g^2 k^3 + 12 a^2 b^2 c^4 d^2 g^3 j \\
& ^3 + 3 a^2 b^3 c^3 d^2 g^2 j^3 - 3 a^2 b^2 c^4 d^2 f^3 k^2 - 3 a^2 b^2 c^4 d^2 g^ \\
& 2 h^3 + 12 a^7 c^3 j^3 k^1 m^3 - 3 b^7 c^3 d^3 k^1 m - 3 a^6 b^3 c^3 k^4 l^1 m - 3 a^6 b \\
& * c^3 j^3 k^1 l^4 - 3 a^6 b^3 c^3 g^3 l^4 m - 9 a^6 b^3 c^3 f^3 j^3 m^4 + 9 a^6 b^3 c^3 e^3 k^3 m^4 + 9 \\
& * a^6 b^3 c^3 d^3 l^1 m^4 + 9 a^6 b^3 c^3 g^3 h^3 m^4 - 3 a^6 b^3 c^3 d^3 e^3 f^3 m^3 + 9 a^6 b^3 c^3 e^3 d^4 h^3 \\
& j - 9 a^6 b^3 c^3 d^4 g^3 k + 9 a^6 b^3 c^3 d^4 f^3 l + 9 a^6 b^3 c^3 d^4 e^3 m + 12 a^6 c^3 d^4 \\
& * e^3 f^3 g - 3 a^6 b^3 c^3 d^4 e^4 j - 3 a^6 b^3 c^3 e^4 f^3 g - 3 a^6 b^3 c^3 d^4 e^4 f^4 + 18 a^6 \\
& * c^3 h^2 j^3 l^1 m^2 - 18 a^6 c^3 h^2 j^2 l^2 m + 18 a^6 c^3 h^2 f^3 k^2 l^2 m + 36 a^6 \\
& * c^3 e^2 k^1 l^2 m + 18 a^6 c^3 g^2 j^3 k^2 m^2 + 18 a^6 c^3 e^2 k^2 l^1 m^2 + 18 a^6 \\
& * c^3 g^2 j^2 k^3 m + 18 a^6 c^3 e^2 j^3 l^2 m^2 + 18 a^6 c^3 d^2 k^1 l^2 m^2 - 18 a^6 \\
& * c^3 e^2 j^3 l^1 m^2 - 18 a^6 c^3 f^3 h^1 l^2 m^2 + 18 a^5 c^3 f^2 h^1 l^2 m - 36 a^6 \\
& * c^3 f^2 h^3 k^3 m^2 - 36 a^5 c^3 f^2 g^3 l^1 m^2 + 18 a^5 c^3 g^2 h^3 k^1 l^2 - 18 a^6 \\
& * c^3 g^2 h^2 k^2 l + 18 a^5 c^3 f^3 h^2 k^2 m + 18 a^5 c^3 f^3 g^2 l^2 m + 18 a^6 \\
& * c^3 e^2 j^2 k^2 l + 18 a^5 c^3 d^2 j^2 k^2 m - 18 a^4 c^4 d^2 j^2 k^3 m + 36 a^6 \\
& * c^4 d^2 j^3 k^2 l + 18 a^5 c^3 f^3 g^2 k^3 m^2 + 18 a^5 c^3 e^3 g^2 l^1 m^2 + 18 a^6 \\
& * c^3 d^2 j^2 k^1 l^2 - 18 a^4 c^4 f^2 g^2 k^3 m + 36 a^4 c^4 d^2 h^3 k^2 m + 18 a^6 \\
& * c^3 f^3 h^2 j^2 l^2 - 18 a^5 c^3 e^3 h^2 j^3 m^2 + 18 a^5 c^3 d^2 h^2 k^3 m^2 + 18 a^6 \\
& * c^4 f^2 h^2 j^3 l - 18 a^4 c^4 e^2 h^3 j^2 m - 18 a^5 c^3 e^3 g^3 k^2 l^2 + 18 a^6 \\
& * c^3 d^2 h^3 k^2 l^2 + 18 a^4 c^4 e^2 g^3 k^2 l + 18 a^4 c^4 e^2 f^3 k^2 m - 18 a^6 \\
& * c^4 d^2 h^3 k^1 l^2 + 18 a^4 c^4 d^2 f^3 l^2 m - 36 a^4 c^4 e^2 g^3 j^3 l^2 - 36 a^6 \\
& * c^4 e^2 f^3 k^1 l^2 - 36 a^4 c^4 d^2 e^2 l^2 m + 18 a^5 c^3 d^2 f^3 k^2 m^2 + 18 a^6 \\
& * c^4 f^2 g^3 j^3 k^2 + 18 a^4 c^4 d^2 g^3 j^3 m^2 - 18 a^4 c^4 d^2 f^3 k^3 m^2 + 18 a^6 \\
& * c^4 d^2 e^3 l^1 m^2 - 18 a^4 c^4 f^3 g^2 j^2 k + 18 a^4 c^4 f^3 g^2 h^2 m + 18 a^6 \\
& * c^4 e^3 g^2 j^2 l + 18 a^4 c^4 e^3 f^2 k^2 l - 18 a^4 c^4 d^2 g^2 j^2 m - 18 a^6 \\
& * c^4 d^2 f^2 k^2 m + 18 a^3 c^5 d^2 f^2 k^3 m + 3 a^4 b^2 c^2 h^4 k^3 m - 3 a^3 b \\
& ^3 c^2 g^4 l^1 m + 18 a^4 c^4 e^3 f^2 j^3 l^2 + 18 a^4 c^4 d^2 h^2 j^2 k + 18 a^4 c^4 \\
& * d^2 f^2 k^1 l^2 + 18 a^4 c^4 d^2 e^2 k^3 m^2 - 18 a^3 c^5 e^2 f^2 j^3 l + 12 a^5 b^3 c \\
& ^2 c^2 g^2 k^3 m^3 - 9 a^5 b^3 c^2 h^3 j^3 m^2 - 9 a^5 b^3 c^2 f^2 l^3 m + 3 a^5 b^3 c \\
& ^2 h^2 k^3 l + 3 a^4 b^3 c^3 h^3 j^3 m^2 + 3 a^4 b^3 c^3 f^2 l^3 m - 18 a^4 c^4 e^ \\
& ^2 f^3 h^3 m^2 + 18 a^3 c^5 e^2 f^2 h^3 m + 15 a^5 b^3 c^2 e^2 l^1 m^3 - 15 a^4 b^3 c \\
& * e^2 l^1 m^3 - 9 a^5 b^3 c^2 g^2 k^1 l^3 - 9 a^4 b^3 c^3 g^3 j^2 m - 3 a^5 b^2 c^3 g^3 \\
& * k^2 l^3 + 3 a^5 b^3 c^2 h^3 j^3 l^2 + 3 a^4 b^3 c^3 g^2 k^1 l^3 - 3 a^3 b^4 c^3 g^3 j \\
& * m^2 + 36 a^4 c^4 e^3 f^2 g^3 m^2 + 36 a^4 c^4 d^2 f^2 h^3 m^2 + 18 a^4 c^4 e^3 g^3 h^2 \\
& * k^2 - 18 a^4 c^4 d^2 g^2 h^1 l^2 - 18 a^4 c^4 d^2 f^3 j^2 k^2 + 18 a^3 c^5 e^2 g^2 \\
& * h^3 k + 18 a^3 c^5 e^2 f^3 g^2 m - 18 a^3 c^5 d^2 g^3 h^2 l + 18 a^3 c^5 d^2 f^3 j \\
& ^2 k + 18 a^3 c^5 d^2 f^3 h^2 m + 18 a^3 c^5 d^2 e^3 j^2 l - 12 a^2 b^2 c^4 e^4 \\
& * k^3 m + 9 a^4 b^3 c^3 f^3 j^3 m^2 - 9 a^4 b^2 c^2 f^3 j^4 m - 6 a^5 b^2 c^3 f^3 j^2 m^ \\
& 3 + 6 a^5 b^3 c^2 f^2 j^3 m^3 - 6 a^5 b^3 c^2 f^3 j^3 m^2 - 6 a^4 b^3 c^3 f^2 j^3 m^3 + \\
& 6 a^4 b^3 c^3 f^3 j^3 m^2 - 6 a^4 b^3 c^3 f^2 j^3 m + 6 a^2 b^3 c^3 f^4 j^3 m + 3 \\
& * a^3 b^2 c^3 g^4 j^3 l + 3 a^2 b^5 c^3 f^3 j^3 m^2 - 3 a^2 b^3 c^3 f^4 k^1 l - 36 a^6 \\
& * c^5 d^2 e^3 j^3 k^2 - 18 a^4 c^4 d^2 f^3 g^2 m^2 + 18 a^3 c^5 e^3 f^2 g^2 l + 18 a^6 \\
& * c^5 d^2 f^2 g^2 m + 18 a^3 c^5 d^2 e^2 j^2 k + 18 a^3 b^4 c^3 d^2 k^3 m^3 + 15 a^6 \\
& * b^3 c^4 e^3 j^2 m + 12 a^5 b^2 c^3 d^2 k^2 m^3 - 9 a^5 b^3 c^2 f^3 j^2 l^3 - 9 a^4 b^3 \\
& * c^3 e^2 k^3 l + 3 a^5 b^3 c^2 e^3 k^3 l^2 + 3 a^4 b^3 c^3 f^3 j^2 l^3 + 3 a^4 b^3 c^ \\
& ^3 g^2 j^3 k - 3 a^3 b^4 c^3 f^2 j^3 l^3 + 3 a^3 b^2 c^3 g^4 h^3 m + 3 a^3 b^5 c^2 *
\end{aligned}$$

$$\begin{aligned}
& e^3 j^2 m - 36 a^3 c^5 d^2 f h k^2 - 21 a^3 b^3 c^4 d^3 j m^2 - 21 a^3 b^5 c^2 d^3 j m^2 + 18 a^3 c^5 e^2 f h j^2 - 18 a^3 c^5 e f^2 h^2 j + 18 a^3 c^5 d f^2 h^2 k + 18 a^3 b^4 c^3 d^3 j^2 m + 15 a^4 b^3 c^3 d^2 k^2 l^3 - 9 a^5 b^3 c^2 d k^2 l^3 - 9 a^4 b^3 c^3 g^3 h^2 l^2 - 9 a^4 b^3 c^3 f^2 j k^3 + 3 a^4 b^3 c^3 d k^2 l^3 + 3 a^2 b^5 c^3 d^2 k^2 l^3 - 18 a^3 c^5 d^2 e g^2 l^2 + 18 a^3 c^5 d e^2 h k^2 + 18 a^3 b^4 c^3 e^2 h m^3 - 18 a^2 c^6 d^2 e^2 h k + 18 a^2 c^6 d^2 e^2 g^2 l + 18 a^2 c^6 d^2 e^2 f m + 15 a^5 b^3 c^2 e h^2 m^3 - 15 a^4 b^3 c^3 e h^2 m^3 - 9 a^4 b^3 c^3 f g^3 m^2 - 9 a^3 b^3 c^4 f^3 h^2 l + 3 a^4 b^2 c^2 e j k^4 + 3 a^4 b^3 c^3 g^3 h^3 k^2 + 3 a^3 b^3 c^4 f^2 g^3 m + 36 a^3 c^5 d e^2 f l^2 + 18 a^3 c^5 d f g^2 j^2 + 18 a^2 c^6 d^2 f^2 g^2 j + 18 a^2 c^6 d^2 e f^2 l - 9 a^3 b^2 c^3 e h^4 l - 9 a^3 b^3 c^4 d^2 j^3 k + 6 a^4 b^3 c^3 e^2 h^2 l^3 - 6 a^4 b^3 c^3 e h^3 l^2 + 6 a^3 b^3 c^4 e^3 h^2 l^2 - 6 a^3 b^3 c^4 e^2 h^3 l + 3 a^4 b^2 c^2 f h k^4 + 3 a^4 b^3 c^3 d j^3 k^2 - 3 a^3 b^4 c^3 e h^2 l^3 + 3 a^2 b^5 c^3 e^2 h^2 l^3 + 3 a^2 b^2 c^4 f^4 h k + 3 a^2 b^2 c^4 f^4 g^2 l + 3 a^2 b^5 c^2 e^3 h^2 l^2 - 3 a^2 b^4 c^3 e^3 h^2 l - 21 a^4 b^3 c^3 d^2 g^2 m^3 - 21 a^2 b^5 c^3 d^2 g^2 m^3 + 18 a^3 b^4 c^3 d g^2 m^3 + 18 a^2 c^6 d e^2 f^2 k + 18 a^2 b^4 c^3 d^3 h^2 l^2 + 15 a^3 b^3 c^4 e^3 f m^2 + 15 a^2 b^3 c^5 d^3 h^2 l - 15 a^2 b^3 c^4 d^3 h^2 l - 9 a^4 b^3 c^3 e h^2 k^3 - 9 a^3 b^3 c^4 f^3 g^2 k^2 - 9 a^2 b^3 c^5 e^3 f^2 m + 3 a^3 b^3 c^4 f^2 h^3 j + 3 a^2 b^5 c^2 e^3 f m^2 + 3 a^2 b^3 c^4 e^3 f^2 m + 18 a^2 b^4 c^3 d^3 f m^2 + 15 a^4 b^3 c^3 d g^2 l^3 + 12 a^2 b^2 c^5 d^3 f^2 m - 9 a^3 b^3 c^4 e^2 h^2 j^3 - 9 a^3 b^3 c^4 e f^3 l^2 - 9 a^2 b^3 c^5 e^3 g^2 k + 3 a^3 b^3 c^4 f g^3 j^2 + 3 a^2 b^5 c^3 d g^2 l^3 + 3 a^2 b^3 c^5 e^2 f^3 l - 3 a^2 b^4 c^3 e^3 g^2 k^2 + 3 a^2 b^3 c^4 e^3 g^2 k + 18 a^2 c^6 d^2 e g^2 h^2 - 18 a^2 c^6 d e^2 g^2 h - 12 a^4 b^2 c^2 d f l^4 - 9 a^2 b^2 c^4 d g^4 k + 9 a^2 b^3 c^4 d^2 g^3 k + 6 a^3 b^3 c^2 d g^2 k^4 + 6 a^3 b^3 c^4 d^2 g^2 k^3 - 6 a^3 b^3 c^4 d g^2 k^2 + 6 a^2 b^3 c^5 d^3 g^2 k^2 - 6 a^2 b^3 c^5 d^2 g^3 k - 6 a^2 b^3 c^4 d^3 g^2 k^2 - 6 a^2 b^2 c^5 d^3 g^2 k - 3 a^3 b^3 c^2 e f k^4 + 3 a^3 b^2 c^3 e g^2 j^4 + 3 a^3 b^2 c^3 d h^2 j^4 + 3 a^2 b^5 c^2 d^2 g^2 k^3 + 15 a^2 b^3 c^5 d^3 e l^2 - 15 a^2 b^3 c^4 d^3 e l^2 - 9 a^3 b^3 c^4 d g^2 j^3 - 9 a^2 b^3 c^5 e^3 f j^2 - 3 a^2 b^4 c^3 d^2 g^2 j^3 + 3 a^2 b^3 c^4 e^3 f j^2 - 3 a^2 b^2 c^5 e^3 f^2 j + 12 a^2 b^2 c^5 d^3 f j^2 - 9 a^2 b^3 c^5 d e^3 k^2 + 3 a^2 b^3 c^5 e^2 g^3 h + 3 a^2 b^3 c^4 d e^3 k^2 - 9 a^2 b^3 c^5 d^2 g^2 h^3 - 3 a^2 b^3 c^3 d e^2 j^4 + 3 a^2 b^3 c^5 e f^3 h^2 + 3 a^2 b^3 c^4 d^2 g^2 h^3 + 3 a^2 b^2 c^4 d f h^4 - 9 a^7 c^2 k^2 l^2 m^2 - 6 a^6 c^2 j^2 k^3 m - 3 a^6 b^2 h^2 l^2 m^3 + 3 a^5 b^3 h^2 l^2 m^3 - 6 a^6 c^2 g^2 k^2 m^3 - 6 a^6 c^2 h^2 k^3 l^2 + 6 a^5 c^3 h^3 j^2 m + 6 a^6 c^2 g^2 k^2 l^3 - 6 a^6 c^2 f k^3 m^2 - 6 a^5 c^3 h^2 j^3 l - 6 a^5 c^3 g^3 j m^2 + 6 a^5 c^3 f^2 k^3 m + 3 a^5 b^3 g^2 k^2 m^3 - 3 a^4 b^4 g^2 k^2 m^3 + 12 a^6 c^2 f j^2 m^3 + 12 a^4 c^4 f^3 j^2 m + 3 a^5 b^3 e l^2 m^3 + 3 a^3 b^5 e^2 l m^3 - 6 a^6 c^2 d k^2 m^3 - 6 a^5 c^3 f^2 j l^3 + 6 a^5 c^3 d^2 k^2 m^3 - 6 a^5 c^3 g^2 j^3 k^2 + 6 a^4 c^4 e^3 j m^2 - 3 b^6 c^2 d^3 j^2 m - 3 a^4 b^4 f j^2 m^3 + 3 a^3 b^5 f^2 j m^3 + 6 a^5 c^3 f j^2 k^3 + 6 a^5 c^3 f h^3 m^2 - 6 a^5 c^3 e j^3 l^2 + 6 a^4 c^4 g^3 h^2 l - 6 a^4 c^4 f^2 h^3 m + 6 a^4 c^4 e^2 j^3 l + 6 a^3 c^5 d^3 j^2 m - 3 a^4 b^4 d k^2 m^3 - 3 a^2 b^6 d^2 k^2 m^3 + 6 a^5 c^3 e^2 h m^3 - 6 a^4 c^4 g^2 h^3 k - 6 a^4 c^4 f^3 h^2 l^2 + 12 a^5 c^3 e h^2 l^3 + 12 a^3 c^5 e^3 h^2 l - 3 b^6 c^2 d^3 h^2 l^2 + 3 b^5 c^3 d^3 h^2 l - 3 a^5 b^2 c^2 j^4 m^2 + 3 a^3 b^5 e h^2 m^3 - 3 a^2 b^6 e^2 h m^3 + 6 a^5 c^3 d g^2 m^3 - 6 a^4 c^4 e^2 h k^3 - 6 a^4 c^4 f^3 h^2 l^2 + 6 a^4 c^4 e g^3 l^2 + 6 a^3 c^5 f^3 g^2 k - 6 a^3 c^5 e^2 g^3 l + 6 a^3 c^5 d^3 h^2 l - 3 b^6 c^2 d^3 f m^2 - 3 b^4 c^4 d^3 f^2 m + 6 a^4 c^4 d^2 g^2 l^3 + 6 a^4 c^4 e h^2 j^3 - 6 a^4 c^4 d h^3 k^2 - 6 a^3 c^5 f^2 g^3 j - 6 a^3 c^5 e^3 g^2 k^2 + 6 a^3 c^5 d^3 f m^2 + 6 a^3 c^5 d^2 h^3 k - 6 a^2 c^6 d^3 f^2 m + 4 a^5 b^2 c^3 h^3 m^3 + 3 b^5 c^3 d^3 g^2 k^2 - 3 b^4 c^4 d^3 g^2 k - 3 a^2 b^6 d g^2 m^3 + a^5 b^3 c^2 j^3 k^3 + 12 a^4 c^4 d g^2 k^3 + 12 a^2 c^6 d^3 g^2 k + 6 a^5 b^3 c^2 h^3 l^3 + 5 a^5 b^3 c^2 g^3 m^3 - 5 a^4 b^3 c^3 g^3 m^3 + 3 b^5 c^3 d^3 e l^2 + 3 b^3 c^5 d^3 e^2 l - 3 a^5 b^2 c^3 h^2 l^4 + a^4 b^3 c^3 h^3 l^3 + 12 a^5 b^2 c^3 f^2 m^4 - 6 a^3 c^5 d^2 g^2 j^3 + 6 a^3 c^5 d f^3 k^2 + 6 a^3 b^4 c^3 f^3 m^3 + 6 a^2 c^6 e^3 f^2 j - 6 a^2 c^6 d^2 f^3 k - 3 b^4 c^4 d^3 f j^2 + 3 b^3 c^5 d^3 f^2 j - 3 a^2 b^2 c^4 f^5 m - 7 a^4 b^3 c^3 e^3 m^3 - 7 a^2 b^5 c^3 e^3 m^3 + 6 a^4 b^3 c^3 g^3 k^3 - 6 a^3 c^5 e g
\end{aligned}$$

$$\begin{aligned}
& ^3h^2 - 6a^2c^6d^3f^2j^2 + 5a^4b^3c^3f^3l^3 + a^4b^3c^3h^3j^3 + a^2 \\
& 2b^5c^3f^3l^3 + 6a^3c^5d^2g^2h^3 - 6a^2c^6e^2f^3h - 3a^3b^4c^2e \\
& ^2l^4 - 3a^3b^4c^3e^4l^2 - 7a^3b^3c^4d^3l^3 - 7a^3b^5c^2d^3l^3 + \\
& 6a^3b^3c^4f^3j^3 + 5a^3b^3c^4e^3k^3 + 3b^3c^5d^3e^2h^2 - 3b^2c^6 \\
& d^3e^2h + ab^5c^2e^3k^3 + 12a^2b^2c^5d^4k^2 - 6a^2c^6d^3f^3g^2 \\
& + 6a^3b^4c^3d^3k^3 - 3a^4b^2c^2d^2k^5 + a^3b^3c^4g^3h^3 + 5a^2b^3 \\
& c^5d^3j^3 - 5a^3b^3c^4d^3j^3 - 9a^3c^7d^2e^2f^2 + 6a^2b^3c^5e^3h^3 \\
& ^3 - 3a^3b^2c^5e^4h^2 + a^2b^3c^5f^3g^3 + a^3b^3c^4e^3h^3 + 4a^3b^2c^5 \\
& d^3h^3 - 3a^3b^2c^5d^2g^4 - 6a^7c^3j^3m^2 + 6a^7c^3h^3l^2m^3 + \\
& 6a^6c^2j^3k^4l + 6a^6c^2h^3k^4m - 6a^5c^3h^4k^3m + 3a^6b^2h^3k^3 \\
& m^4 + 3a^6b^2g^3l^3m^4 - 3b^5c^3d^4l^3m - 6a^6c^2g^3j^3l^4 - 6a^6c^2 \\
& f^3k^3l^4 - 6a^6c^2d^3l^4m + 6a^5c^3h^3j^4k + 6a^5c^3g^3j^4l + 6a^5 \\
& c^3f^3j^4m - 6a^4c^4g^4j^3l + 6a^3c^5e^4k^3m + 6a^5b^3f^3j^3m^4 - \\
& 6a^4c^4g^4h^3m + 3b^7c^3d^3j^3m^2 - 3a^5b^3e^3k^3m^4 - 3a^5b^3d^3l^3 \\
& m^4 + 3b^4c^4d^4j^3l - 3a^5b^3g^3h^3m^4 - 6a^5c^3e^3j^3k^4 + 6a^2c^6 \\
& d^4j^3l + 3b^4c^4d^4h^3m + 6a^6c^2e^3g^3m^4 + 6a^6c^2d^3h^3m^4 + 6a^6 \\
& b^3c^3j^3m^3 - 6a^5c^3f^3h^3k^4 + 6a^4c^4g^3h^4j + 6a^4c^4f^3h^4k + \\
& 6a^4c^4e^3h^4l + 6a^4c^4d^3h^4m - 6a^3c^5f^4h^3k - 6a^3c^5f^4g^3 \\
& l + 6a^2c^6d^4h^3m + 3a^5b^3c^2j^5m + a^6b^3c^3k^3l^3 + 3a^4b^4e^3 \\
& g^3m^4 + 3a^4b^4d^3h^3m^4 + 6b^3c^5d^4g^3k - 3b^3c^5d^4h^3j - 3b^3c^5 \\
& d^4f^3l - 3b^3c^5d^4e^3m + 3a^3b^7d^2g^3m^3 + 6a^5c^3d^3f^3l^4 - 6 \\
& a^4c^4e^3g^3j^4 - 6a^4c^4d^3h^3j^4 + 6a^3c^5e^3g^4j + 6a^3c^5d^3g^4k \\
& - 6a^2c^6e^4g^3j - 6a^2c^6e^4f^3k - 6a^2c^6d^3e^4m + 3a^4b^3c^3 \\
& h^5l + 6a^3c^5f^3g^4h - 3a^3b^5d^3e^3m^4 + 3b^2c^6d^4e^3j + 3a^5b^3 \\
& c^2g^3k^5 + 3a^3b^3c^4g^5k + 8a^3b^6c^3d^3m^3 + 3b^2c^6d^4f^3h - 3 \\
& a^5b^2c^3e^3l^5 - 3a^3b^2c^5e^5l - 6a^3c^5d^3f^3h^4 + 6a^2c^6e^3f^4g^3 \\
& + 6a^2c^6d^3f^4h + 3a^4b^3c^3f^3j^5 + 3a^2b^3c^5f^5j + 6a^3c^7d^3 \\
& e^2h - 6a^3c^7d^2e^3g + 3a^3b^3c^4e^3h^5 + 6a^3b^3c^6d^3g^3 + 3a^2b^3 \\
& c^5d^3g^5 + a^3b^3c^6e^3f^3 - 9a^6c^2j^2k^2l^2 - 9a^6c^2h^2k^2m^2 \\
& ^2 - 9a^6c^2g^2l^2m^2 - 18a^5c^3f^2j^2m^2 - 9a^5c^3h^2j^2k^2 \\
& - 9a^5c^3g^2j^2l^2 - 9a^5c^3f^2k^2l^2 - 9a^5c^3e^2k^2m^2 - \\
& 9a^5c^3d^2l^2m^2 - 9a^5c^3g^2h^2m^2 - 9a^4c^4e^2j^2k^2 - 9a^4 \\
& c^4d^2j^2l^2 - 18a^4c^4e^2h^2l^2 - 9a^4c^4g^2h^2j^2 - 9a^4 \\
& c^4f^2h^2k^2 - 9a^4c^4f^2g^2l^2 - 9a^4c^4e^2g^2m^2 - 9a^4c^4 \\
& d^2h^2m^2 - 18a^3c^5d^2g^2k^2 - 9a^3c^5e^2g^2j^2 - 9a^3c^5e^2 \\
& f^2k^2 - 9a^3c^5d^2h^2j^2 - 9a^3c^5d^2f^2l^2 - 9a^3c^5d^2 \\
& e^2m^2 - 3a^4b^2c^2h^4l^2 - 18a^4b^2c^2f^3m^3 + 12a^3b^2c^3f^4 \\
& m^2 - 9a^3c^5f^2g^2h^2 + 4a^4b^2c^2g^3l^3 - 3a^2b^4c^2f^4 \\
& m^2 + 14a^3b^3c^2e^3m^3 - 5a^3b^3c^2f^3l^3 - 3a^4b^2c^2g^2k^4 \\
& ^4 - 3a^3b^2c^3g^4k^2 + a^3b^3c^2g^3k^3 - 20a^2b^4c^2d^3m^3 - \\
& 18a^3b^2c^3e^3l^3 + 16a^3b^2c^3d^3m^3 + 12a^4b^2c^2e^2l^4 + \\
& 12a^2b^2c^4e^4l^2 - 9a^2c^6d^2e^2j^2 + 6a^2b^4c^2e^3l^3 + 4 \\
& a^3b^2c^3f^3k^3 + 14a^2b^3c^3d^3l^3 - 9a^2c^6e^2f^2g^2 - 9a^2 \\
& c^6d^2f^2h^2 - 5a^2b^3c^3e^3k^3 - 3a^3b^2c^3f^2j^4 - 3a^2b^2 \\
& c^4f^4j^2 + a^2b^3c^3f^3j^3 - 18a^2b^2c^4d^3k^3 + 12a^3b^2 \\
& c^3d^2k^4 + 4a^2b^2c^4e^3j^3 - 3a^2b^4c^2d^2k^4 - 3a^2b^2c^4 \\
& e^2h^4 + 6a^7c^3k^3l^4m - 3a^7b^3k^3l^4m - 6a^7c^3h^3k^3m^4 - 6a^7c^3 \\
& g^3l^4m + 3a^6b^3c^3h^3l^5 - 6a^3c^7d^4e^3j - 6a^3c^7d^4f^3h - 3b^3c^7 \\
& d^4e^3f + 6a^3c^7d^4e^4f + 3a^3b^3c^6e^5h - a^5b^2c^3j^3l^3 - a^3b^4c^3 \\
& g^3l^3 - a^3b^4c^3e^3j^3 - a^3b^2c^5e^3g^3 + 3a^7b^3j^3m^5 + 6a^7c^3f^3 \\
& m^5 + 6a^3c^7d^5k + 3b^3c^7d^5g - 3a^6c^2j^4m^2 - 3a^6b^2j^2m^4 + \\
& 2a^6c^2j^3l^3 + a^5b^3j^3m^3 - 2a^6c^2h^3m^3 - 3a^6c^2h^2l^4 \\
& ^4 - 3a^5c^3h^4l^2 - a^3b^6c^3e^3l^3 + 20a^5c^3f^3m^3 - 15a^6c^2f^2 \\
& m^4 - 15a^4c^4f^4m^2 + 2a^5c^3h^3k^3 - 2a^5c^3g^3l^3 + a^3b^5 \\
& g^3m^3 - 3a^5c^3g^2k^4 - 3a^4c^4g^4k^2 - 3a^4b^4f^2m^4 + 20 \\
& a^4c^4e^3l^3 - 15a^5c^3e^2l^4 - 15a^3c^5e^4l^2 + 2a^4c^4g^3j^3 \\
& ^3 - 2a^4c^4f^3k^3 - 2a^4c^4d^3m^3 - 3b^4c^4d^4k^2 - 3a^4c^4 \\
& f^2j^4 - 3a^3c^5f^4j^2 + 20a^3c^5d^3k^3 - 15a^4c^4d^2k^4 - 15 \\
& a^2c^6d^4k^2 - 2a^3c^5e^3j^3 + b^5c^3d^3j^3 + 2a^3c^5f^3h^3
\end{aligned}$$

$$\begin{aligned}
& - 3*a^3*c^5*e^2*h^4 - 3*a^2*c^6*e^4*h^2 - 3*b^2*c^6*d^4*g^2 + 2*a^2*c^6*e^3 \\
& *g^3 - 2*a^2*c^6*d^3*h^3 + b^3*c^5*d^3*g^3 - 3*a^2*c^6*d^2*g^4 - a^4*b^2*c^ \\
& 2*h^3*k^3 - a^3*b^2*c^3*g^3*j^3 - a^2*b^4*c^2*f^3*k^3 - a^2*b^2*c^4*f^3*h^3 \\
& + 2*a^7*c*k^3*m^3 + a^7*b*l^3*m^3 - 3*a^7*c*j^2*m^4 + 6*a^3*c^5*f^5*m - 3* \\
& a^6*b^2*f*m^5 + 6*a^6*c^2*e*l^5 + 6*a^2*c^6*e^5*l + b^7*c*d^3*l^3 + a*b^7*e \\
& ^3*m^3 - 3*b^2*c^6*d^5*k + 6*a^5*c^3*d*k^5 - 3*a*c^7*d^4*g^2 + 2*a*c^7*d^3* \\
& f^3 + b*c^7*d^3*e^3 - a^6*b^2*k^3*m^3 - a^4*b^4*h^3*m^3 - a^2*b^6*f^3*m^3 - \\
& b^6*c^2*d^3*k^3 - b^4*c^4*d^3*h^3 - b^2*c^6*d^3*f^3 - b^8*d^3*m^3 - a^6*c^ \\
& 2*k^6 - a^5*c^3*j^6 - a^4*c^4*h^6 - a^3*c^5*g^6 - a^2*c^6*f^6 - a^7*c*l^6 - \\
& a*c^7*e^6 - a^8*m^6 - c^8*d^6, z, k1)*((1296*a^3*c^8*f - 1296*a^4*c^7*m - \\
& 648*a^2*b^2*c^7*f + 1944*a^2*b^3*c^6*j - 2025*a^2*b^4*c^5*m + 4536*a^3*b^2* \\
& c^6*m + 81*a*b^4*c^6*f - 243*a*b^5*c^5*j - 3888*a^3*b*c^7*j + 243*a*b^6*c^4 \\
& *m)/c^3 + (root(34992*a^4*b^2*c^8*z^6 - 8748*a^3*b^4*c^7*z^6 + 729*a^2*b^6* \\
& c^6*z^6 - 46656*a^5*c^9*z^6 + 34992*a^4*b^3*c^6*m*z^5 - 8748*a^3*b^5*c^5*m* \\
& z^5 + 729*a^2*b^7*c^4*m*z^5 - 34992*a^4*b^2*c^7*j*z^5 + 8748*a^3*b^4*c^6*j* \\
& z^5 - 729*a^2*b^6*c^5*j*z^5 - 46656*a^5*b*c^7*m*z^5 + 46656*a^5*c^8*j*z^5 + \\
& 34992*a^5*b*c^6*j*m*z^4 - 11664*a^5*b*c^6*k*l*z^4 + 3888*a^4*b*c^7*f*j*z^4 \\
& + 3888*a^4*b*c^7*e*k*z^4 + 3888*a^4*b*c^7*d*l*z^4 + 3888*a^4*b*c^7*g*h*z^4 \\
& + 3888*a^3*b*c^8*d*e*z^4 + 243*a*b^5*c^6*d*e*z^4 - 25272*a^4*b^3*c^5*j*m*z \\
& ^4 + 9720*a^4*b^3*c^5*k*l*z^4 + 6075*a^3*b^5*c^4*j*m*z^4 - 2673*a^3*b^5*c^4 \\
& *k*l*z^4 - 486*a^2*b^7*c^3*j*m*z^4 + 243*a^2*b^7*c^3*k*l*z^4 - 7776*a^4*b^2 \\
& *c^6*h*k*z^4 - 7776*a^4*b^2*c^6*g*l*z^4 - 7776*a^4*b^2*c^6*f*m*z^4 + 2430*a \\
& ^3*b^4*c^5*h*k*z^4 + 2430*a^3*b^4*c^5*g*l*z^4 + 2430*a^3*b^4*c^5*f*m*z^4 - \\
& 243*a^2*b^6*c^4*h*k*z^4 - 243*a^2*b^6*c^4*g*l*z^4 - 243*a^2*b^6*c^4*f*m*z^4 \\
& - 1944*a^3*b^3*c^6*f*j*z^4 - 1944*a^3*b^3*c^6*e*k*z^4 - 1944*a^3*b^3*c^6*d \\
& *l*z^4 + 243*a^2*b^5*c^5*f*j*z^4 + 243*a^2*b^5*c^5*e*k*z^4 + 243*a^2*b^5*c^ \\
& 5*d*l*z^4 - 1944*a^3*b^3*c^6*g*h*z^4 + 243*a^2*b^5*c^5*g*h*z^4 + 3888*a^3*b \\
& ^2*c^7*e*g*z^4 + 3888*a^3*b^2*c^7*d*h*z^4 - 486*a^2*b^4*c^6*e*g*z^4 - 486*a \\
& ^2*b^4*c^6*d*h*z^4 - 1944*a^2*b^3*c^7*d*e*z^4 + 7776*a^5*c^7*h*k*z^4 + 7776 \\
& *a^5*c^7*g*l*z^4 + 7776*a^5*c^7*f*m*z^4 - 7776*a^4*c^8*e*g*z^4 - 7776*a^4*c \\
& ^8*d*h*z^4 - 13608*a^5*b^2*c^5*m^2*z^4 + 11421*a^4*b^4*c^4*m^2*z^4 - 2916*a \\
& ^3*b^6*c^3*m^2*z^4 + 243*a^2*b^8*c^2*m^2*z^4 + 13608*a^4*b^2*c^6*j^2*z^4 - \\
& 3159*a^3*b^4*c^5*j^2*z^4 + 243*a^2*b^6*c^4*j^2*z^4 + 1944*a^3*b^2*c^7*f^2*z \\
& ^4 - 243*a^2*b^4*c^6*f^2*z^4 - 3888*a^6*c^6*m^2*z^4 - 19440*a^5*c^7*j^2*z^4 \\
& - 3888*a^4*c^8*f^2*z^4 + 3078*a^4*b^4*c^3*k*l*m*z^3 - 2592*a^5*b^2*c^4*k*l \\
& *m*z^3 - 891*a^3*b^6*c^2*k*l*m*z^3 - 4536*a^4*b^3*c^4*j*k*l*z^3 + 1053*a^3* \\
& b^5*c^3*j*k*l*z^3 - 81*a^2*b^7*c^2*j*k*l*z^3 - 2592*a^4*b^3*c^4*h*k*m*z^3 - \\
& 2592*a^4*b^3*c^4*g*l*m*z^3 + 810*a^3*b^5*c^3*h*k*m*z^3 + 810*a^3*b^5*c^3*g \\
& *l*m*z^3 - 81*a^2*b^7*c^2*h*k*m*z^3 - 81*a^2*b^7*c^2*g*l*m*z^3 + 7776*a^4*b \\
& ^2*c^5*f*j*m*z^3 + 3888*a^4*b^2*c^5*h*j*k*z^3 + 3888*a^4*b^2*c^5*g*j*l*z^3 \\
& - 3888*a^4*b^2*c^5*f*k*l*z^3 - 2916*a^3*b^4*c^4*f*j*m*z^3 + 1458*a^3*b^4*c^ \\
& 4*f*k*l*z^3 - 972*a^3*b^4*c^4*h*j*k*z^3 - 972*a^3*b^4*c^4*g*j*l*z^3 - 486*a \\
& ^3*b^4*c^4*e*k*m*z^3 - 486*a^3*b^4*c^4*d*l*m*z^3 + 324*a^2*b^6*c^3*f*j*m*z^ \\
& 3 - 162*a^2*b^6*c^3*f*k*l*z^3 + 81*a^2*b^6*c^3*h*j*k*z^3 + 81*a^2*b^6*c^3*g \\
& *j*l*z^3 + 81*a^2*b^6*c^3*e*k*m*z^3 + 81*a^2*b^6*c^3*d*l*m*z^3 - 486*a^3*b^ \\
& 4*c^4*g*h*m*z^3 + 81*a^2*b^6*c^3*g*h*m*z^3 + 648*a^3*b^3*c^5*e*j*k*z^3 + 64 \\
& 8*a^3*b^3*c^5*d*j*l*z^3 - 81*a^2*b^5*c^4*e*j*k*z^3 - 81*a^2*b^5*c^4*d*j*l*z \\
& ^3 + 2592*a^3*b^3*c^5*e*g*m*z^3 + 2592*a^3*b^3*c^5*d*h*m*z^3 - 1296*a^3*b^3 \\
& *c^5*f*h*k*z^3 - 1296*a^3*b^3*c^5*f*g*l*z^3 - 1296*a^3*b^3*c^5*e*h*l*z^3 + \\
& 648*a^3*b^3*c^5*g*h*j*z^3 - 324*a^2*b^5*c^4*e*g*m*z^3 - 324*a^2*b^5*c^4*d*h \\
& *m*z^3 + 162*a^2*b^5*c^4*f*h*k*z^3 + 162*a^2*b^5*c^4*f*g*l*z^3 + 162*a^2*b^ \\
& 5*c^4*e*h*l*z^3 - 81*a^2*b^5*c^4*g*h*j*z^3 + 5184*a^3*b^2*c^6*d*e*m*z^3 - 2 \\
& 592*a^3*b^2*c^6*e*g*j*z^3 - 2592*a^3*b^2*c^6*d*h*j*z^3 - 2106*a^2*b^4*c^5*d \\
& *e*m*z^3 + 1296*a^3*b^2*c^6*e*f*k*z^3 + 1296*a^3*b^2*c^6*d*g*k*z^3 + 1296*a \\
& ^3*b^2*c^6*d*f*l*z^3 + 324*a^2*b^4*c^5*e*g*j*z^3 + 324*a^2*b^4*c^5*d*h*j*z^ \\
& 3 - 162*a^2*b^4*c^5*e*f*k*z^3 - 162*a^2*b^4*c^5*d*g*k*z^3 - 162*a^2*b^4*c^5 \\
& *d*f*l*z^3 + 1296*a^3*b^2*c^6*f*g*h*z^3 - 162*a^2*b^4*c^5*f*g*h*z^3 + 1944* \\
& a^2*b^3*c^6*d*e*j*z^3 - 1296*a^2*b^2*c^7*d*e*f*z^3 + 81*a^2*b^8*c*k*l*m*z^3 \\
& + 6480*a^5*b*c^5*j*k*l*z^3 + 2592*a^5*b*c^5*h*k*m*z^3 + 2592*a^5*b*c^5*g*l
\end{aligned}$$

$$\begin{aligned}
& *m*z^3 - 1296*a^4*b*c^6*e*j*k*z^3 - 1296*a^4*b*c^6*d*j*l*z^3 - 5184*a^4*b*c^6*e*g*m*z^3 - 5184*a^4*b*c^6*d*h*m*z^3 + 2592*a^4*b*c^6*f*h*k*z^3 + 2592*a^4*b*c^6*f*g*l*z^3 + 2592*a^4*b*c^6*e*h*l*z^3 - 1296*a^4*b*c^6*g*h*j*z^3 + 243*a*b^6*c^4*d*e*m*z^3 - 3888*a^3*b*c^7*d*e*j*z^3 - 243*a*b^5*c^5*d*e*j*z^3 + 162*a*b^4*c^6*d*e*f*z^3 - 2592*a^6*c^5*k*l*m*z^3 - 5184*a^5*c^6*h*j*k*z^3 - 5184*a^5*c^6*g*j*l*z^3 - 5184*a^5*c^6*f*j*m*z^3 + 2592*a^5*c^6*f*k*l*z^3 + 2592*a^5*c^6*e*k*m*z^3 + 2592*a^5*c^6*d*l*m*z^3 + 2592*a^5*c^6*g*h*m*z^3 + 5184*a^4*c^7*e*g*j*z^3 + 5184*a^4*c^7*d*h*j*z^3 - 2592*a^4*c^7*e*f*k*z^3 - 2592*a^4*c^7*d*g*k*z^3 - 2592*a^4*c^7*d*f*l*z^3 - 2592*a^4*c^7*d*e*m*z^3 - 2592*a^4*c^7*f*g*h*z^3 + 2592*a^3*c^8*d*e*f*z^3 + 6480*a^5*b^2*c^4*j*m^2*z^3 + 6480*a^4*b^3*c^4*j^2*m*z^3 - 5022*a^4*b^4*c^3*j*m^2*z^3 - 1296*a^3*b^5*c^3*j^2*m*z^3 + 1134*a^3*b^6*c^2*j*m^2*z^3 + 81*a^2*b^7*c^2*j^2*m*z^3 + 2592*a^4*b^3*c^4*h*l^2*z^3 - 1944*a^4*b^2*c^5*h^2*l*z^3 - 810*a^3*b^5*c^3*h*l^2*z^3 + 729*a^3*b^4*c^4*h^2*l*z^3 + 81*a^2*b^7*c^2*h*l^2*z^3 - 81*a^2*b^6*c^3*h^2*l*z^3 - 5184*a^4*b^3*c^4*f*m^2*z^3 + 1620*a^3*b^5*c^3*f*m^2*z^3 + 1296*a^3*b^3*c^5*f^2*m*z^3 - 162*a^2*b^7*c^2*f*m^2*z^3 - 162*a^2*b^5*c^4*f^2*m*z^3 - 1944*a^4*b^2*c^5*g*k^2*z^3 + 729*a^3*b^4*c^4*g*k^2*z^3 - 648*a^3*b^3*c^5*g^2*k*z^3 - 81*a^2*b^6*c^3*g*k^2*z^3 + 81*a^2*b^5*c^4*g^2*k*z^3 - 1944*a^4*b^2*c^5*e*l^2*z^3 + 729*a^3*b^4*c^4*e*l^2*z^3 + 648*a^3*b^2*c^6*e^2*l*z^3 - 81*a^2*b^6*c^3*e*l^2*z^3 - 81*a^2*b^4*c^5*e^2*l*z^3 + 1296*a^3*b^3*c^5*f*j^2*z^3 - 1296*a^3*b^2*c^6*f^2*j*z^3 - 162*a^2*b^5*c^4*f*j^2*z^3 + 162*a^2*b^4*c^5*f^2*j*z^3 - 648*a^3*b^3*c^5*d*k^2*z^3 + 81*a^2*b^5*c^4*d*k^2*z^3 + 648*a^3*b^2*c^6*e*h^2*z^3 - 81*a^2*b^4*c^5*e*h^2*z^3 - 648*a^2*b^2*c^7*d^2*g*z^3 - 10368*a^5*b*c^5*j^2*m*z^3 - 81*a^2*b^8*c*j*m^2*z^3 - 2592*a^5*b*c^5*h*l^2*z^3 + 5184*a^5*b*c^5*f*m^2*z^3 - 2592*a^4*b*c^6*f^2*m*z^3 + 1296*a^4*b*c^6*g^2*k*z^3 - 2592*a^4*b*c^6*f*j^2*z^3 + 1296*a^4*b*c^6*d*k^2*z^3 + 81*a*b^4*c^6*d^2*g*z^3 + 2592*a^6*c^5*j*m^2*z^3 + 1296*a^5*c^6*h^2*l*z^3 + 1296*a^5*c^6*g*k^2*z^3 + 1296*a^5*c^6*e*l^2*z^3 - 1296*a^4*c^7*e^2*l*z^3 + 2592*a^4*c^7*f^2*j*z^3 - 2592*a^6*b*c^4*m^3*z^3 - 324*a^3*b^7*c*m^3*z^3 - 27*a^2*b^8*c*l^3*z^3 - 1296*a^4*c^7*e*h^2*z^3 - 864*a^5*b*c^5*k^3*z^3 + 1296*a^3*c^8*d^2*g*z^3 + 432*a^4*b*c^6*h^3*z^3 + 27*a*b^4*c^6*e^3*z^3 - 432*a^2*b*c^8*d^3*z^3 + 216*a*b^3*c^7*d^3*z^3 + 1134*a^4*b^5*c^2*m^3*z^3 - 432*a^5*b^3*c^3*m^3*z^3 + 1512*a^5*b^2*c^4*l^3*z^3 - 1107*a^4*b^4*c^3*l^3*z^3 + 297*a^3*b^6*c^2*l^3*z^3 + 864*a^4*b^3*c^4*k^3*z^3 - 270*a^3*b^5*c^3*k^3*z^3 + 27*a^2*b^7*c^2*k^3*z^3 - 2592*a^4*b^2*c^5*j^3*z^3 + 486*a^3*b^4*c^4*j^3*z^3 - 27*a^2*b^6*c^3*j^3*z^3 - 216*a^3*b^3*c^5*h^3*z^3 + 27*a^2*b^5*c^4*h^3*z^3 + 216*a^3*b^2*c^6*g^3*z^3 - 27*a^2*b^4*c^5*g^3*z^3 - 216*a^2*b^2*c^7*e^3*z^3 - 432*a^6*c^5*l^3*z^3 + 27*a^2*b^9*m^3*z^3 + 4320*a^5*c^6*j^3*z^3 - 432*a^4*c^7*g^3*z^3 + 432*a^3*c^8*e^3*z^3 - 27*b^5*c^6*d^3*z^3 + 81*a^3*b^6*c*j*k*l*m*z^2 - 1296*a^5*b*c^4*h*j*k*m*z^2 - 1296*a^5*b*c^4*g*j*l*m*z^2 + 1296*a^5*b*c^4*f*k*l*m*z^2 - 81*a^2*b^7*c*f*k*l*m*z^2 + 2592*a^4*b*c^5*e*g*j*m*z^2 + 2592*a^4*b*c^5*d*h*j*m*z^2 - 1296*a^4*b*c^5*f*h*j*k*z^2 - 1296*a^4*b*c^5*f*g*j*l*z^2 - 1296*a^4*b*c^5*e*f*k*m*z^2 - 1296*a^4*b*c^5*d*f*l*m*z^2 - 648*a^4*b*c^5*e*h*j*l*z^2 - 648*a^4*b*c^5*e*g*k*l*z^2 - 648*a^4*b*c^5*d*h*k*l*z^2 - 648*a^4*b*c^5*d*g*k*m*z^2 - 1296*a^4*b*c^5*f*g*h*m*z^2 - 162*a*b^6*c^3*d*e*j*m*z^2 + 81*a*b^6*c^3*d*e*k*l*z^2 + 1296*a^3*b*c^6*d*e*f*m*z^2 - 648*a^3*b*c^6*d*f*g*k*z^2 - 648*a^3*b*c^6*d*e*h*k*z^2 - 648*a^3*b*c^6*d*e*g*l*z^2 - 81*a*b^5*c^4*d*e*h*k*z^2 - 81*a*b^5*c^4*d*e*g*l*z^2 + 81*a*b^5*c^4*d*e*f*m*z^2 - 81*a*b^4*c^5*d*e*f*j*z^2 + 81*a*b^4*c^5*d*e*g*h*z^2 + 648*a^5*b^2*c^3*j*k*l*m*z^2 - 567*a^4*b^4*c^2*j*k*l*m*z^2 - 1944*a^4*b^3*c^3*f*k*l*m*z^2 + 729*a^3*b^5*c^2*f*k*l*m*z^2 + 648*a^4*b^3*c^3*h*j*k*m*z^2 + 648*a^4*b^3*c^3*g*j*l*m*z^2 - 81*a^3*b^5*c^2*h*j*k*m*z^2 - 81*a^3*b^5*c^2*g*j*l*m*z^2 + 1944*a^4*b^2*c^4*f*j*k*l*m*z^2 - 729*a^3*b^4*c^3*f*j*k*l*m*z^2 + 648*a^4*b^2*c^4*d*j*l*m*z^2 - 81*a^3*b^4*c^3*e*j*k*m*z^2 - 81*a^3*b^4*c^3*d*j*l*m*z^2 + 81*a^2*b^6*c^2*f*j*k*l*m*z^2 + 1296*a^4*b^2*c^4*f*h*k*m*z^2 + 1296*a^4*b^2*c^4*f*g*l*m*z^2 + 648*a^4*b^2*c^4*g*h*j*m*z^2 - 648*a^3*b^4*c^3*f*h*k*m*z^2 - 648*a^3*b^4*c^3*f*g*l*m*z^2 - 324*a^4*b^2*c^4*g*h*k*l*m*z^2 - 324*a^4*b^2*c^4*e*h*l*m*z^2 + 81*a^3*b^4*c^3*g*h*k*l*m*z^2 - 81*a^3*b^4*c^3*g*h*j*m*z^2 + 81*a^2*b^6*c^2*f*h*k*m*z^2 +
\end{aligned}$$

$$\begin{aligned}
&81a^2b^6c^2f*gl*mz^2 - 1296a^3b^3c^4e*gj*mz^2 - 1296a^3b^3c^4d*h*j*mz^2 + 648a^3b^3c^4f*h*j*kz^2 + 648a^3b^3c^4f*g*j*lz^2 \\
&+ 648a^3b^3c^4e*f*k*mz^2 + 648a^3b^3c^4d*f*lmz^2 + 486a^3b^3c^4e*g*k*lz^2 + 486a^3b^3c^4d*h*k*lz^2 + 162a^3b^3c^4e*h*j*lz^2 \\
&+ 162a^3b^3c^4d*g*k*lmz^2 + 162a^2b^5c^3e*gj*mz^2 + 162a^2b^5c^3d*h*j*mz^2 - 81a^2b^5c^3f*h*j*kz^2 - 81a^2b^5c^3f*g*j*lz^2 - \\
&81a^2b^5c^3e*g*k*lz^2 - 81a^2b^5c^3e*f*k*lmz^2 - 81a^2b^5c^3d*h*k*lz^2 - 81a^2b^5c^3d*f*lmz^2 + 648a^3b^3c^4f*g*h*mz^2 - 81a^2b^5c^3f*g*h*mz^2 - 3240a^3b^2c^5d*e*j*mz^2 + 1620a^3b^2c^5d* \\
&e*k*lz^2 + 1377a^2b^4c^4d*e*j*mz^2 - 648a^3b^2c^5e*f*j*kz^2 - 648a^3b^2c^5d*f*j*lz^2 - 648a^2b^4c^4d*d*e*k*lz^2 - 324a^3b^2c^5d* \\
&*g*j*kz^2 + 81a^2b^4c^4e*f*j*kz^2 + 81a^2b^4c^4d*f*j*lz^2 + 972a^3b^2c^5e*f*h*lz^2 - 648a^3b^2c^5f*g*h*jz^2 - 324a^3b^2c^5e*g* \\
&*h*kz^2 - 324a^3b^2c^5d*g*h*lz^2 - 162a^2b^4c^4e*f*h*lz^2 + 81a^2b^4c^4f*g*h*jz^2 + 81a^2b^4c^4e*g*h*kz^2 + 81a^2b^4c^4d*g*h* \\
&lz^2 - 648a^2b^3c^5d*e*f*lmz^2 + 486a^2b^3c^5d*e*h*kz^2 + 486a^2b^3c^5d*e*g*lz^2 + 162a^2b^3c^5d*f*g*kz^2 + 648a^2b^2c^6d*e*f* \\
&jz^2 - 324a^2b^2c^6d*e*g*h*lz^2 - 1296a^6b*c^3k*lm^2z^2 - 81a^4b^5c*k*lm^2z^2 - 1296a^5b*c^4j^2k*lmz^2 - 324a^5b*c^4h^2l*mz^2 + \\
&324a^5b*c^4h*k^2l*mz^2 - 324a^5b*c^4g*k^2mz^2 + 972a^5b*c^4h*jl^2z^2 + 324a^5b*c^4g*k*lmz^2 - 324a^5b*c^4e*l^2mz^2 - 324a^4b* \\
&c^5e^2l*mz^2 - 1944a^5b*c^4f*j*m^2z^2 + 1296a^5b*c^4e*k*m^2z^2 + 1296a^5b*c^4d*l*m^2z^2 + 648a^4b*c^5f^2j*mz^2 + 81a^2b^7c*f*f*j* \\
&m^2z^2 + 1296a^5b*c^4g*h*m^2z^2 - 324a^4b*c^5g^2j*kz^2 + 324a^4b*c^5g^2h*lmz^2 + 972a^4b*c^5f*h^2l*mz^2 + 324a^4b*c^5g*h^2k*lz^2 \\
&- 324a^4b*c^5e*h^2mz^2 - 324a^4b*c^5d*j*k^2z^2 - 324a^3b*c^6d^2j*kz^2 + 972a^4b*c^5f*g*k^2z^2 + 972a^3b*c^6d^2g*mz^2 + 324a^4b* \\
&c^5e*h*k^2z^2 + 324a^3b*c^6d^2h*lmz^2 + 81a*b^5c^4d^2g*mz^2 + 972a^4b*c^5e*f*l^2z^2 + 324a^4b*c^5d*g*lmz^2 - 324a^3b*c^6e^2h* \\
&jz^2 + 324a^3b*c^6e^2g*kz^2 - 324a^3b*c^6e^2f*lmz^2 - 1296a^4b*c^5d*e*m^2z^2 + 81a*b^7c^2d*e*m^2z^2 - 324a^3b*c^6d*g^2jz^2 - 81a*b^4c^5d^2g*jz^2 + 81a*b^4c^5d^2e*lmz^2 + 324a^3b*c^6e*g^2h* \\
&z^2 + 81a*b^4c^5d^2e*kz^2 + 1296a^3b*c^6d*e*j^2z^2 - 324a^3b*c^6e*f*h^2z^2 + 324a^3b*c^6d*g*h^2z^2 + 81a*b^5c^4d*e*j^2z^2 - 324a^2b*c^7d^2f*g*z^2 + 324a^2b*c^7d^2e*h*lz^2 + 81a*b^3c^6d^2f*g*z^2 \\
&- 81a*b^3c^6d^2e*h*lz^2 + 324a^2b*c^7d^2e*g*z^2 - 81a*b^3c^6d^2g*z^2 + 1296a^6c^4j*k*lmz^2 - 1296a^5c^5f*j*k*lmz^2 - 1296a^5c^5e*j*k*mz^2 - 1296a^5c^5d*j*l*mz^2 - 1296a^5c^5g*h*j*mz^2 + 1296a^5c^5e*h*lmz^2 + 1296a^4c^6e*f*j*kz^2 + 1296a^4c^6d*g*j*kz^2 + 1296a^4c^6d*f*j*lmz^2 - 1296a^4c^6d*e*k*lmz^2 + 1296a^4c^6d*e*j*mz^2 + 1296a^4c^6f*g*h*jz^2 - 1296a^4c^6e*f*h*lmz^2 - 1296a^3c^7d*e*f*jz^2 + 648a^5b^3c^2k*lm^2z^2 + 648a^4b^3c^3j^2k*lmz^2 + 486a^5b^2c^3h*lmz^2 - 81a^4b^4c^2h*lmz^2 + 81a^4b^3c^3h^2l*mz^2 - 81a^3b^5c^2j^2k*lmz^2 - 162a^4b^2c^4g^2k*mz^2 - 81a^4b^3c^3h*k^2l*mz^2 + 81a^4b^3c^3g*k^2mz^2 - 567a^4b^3c^3h*j*lmz^2 + 486a^4b^2c^4h^2j*lmz^2 - 81a^4b^3c^3g*k*lmz^2 + 81a^4b^3c^3e*lmz^2 + 81a^3b^5c^2h*j*lmz^2 - 81a^3b^4c^3h^2j*lmz^2 + 81a^3b^3c^4e^2l*mz^2 + 2430a^4b^3c^3f*j*m^2z^2 - 2268a^4b^2c^4f*j^2mz^2 - 810a^3b^5c^2f*j*m^2z^2 + 810a^3b^4c^3f*j^2mz^2 - 648a^4b^3c^3e*k*m^2z^2 - 648a^4b^3c^3d*l*m^2z^2 - 648a^4b^2c^4h*j^2k*lmz^2 - 648a^4b^2c^4g*j^2l*mz^2 - 162a^3b^3c^4f^2j*mz^2 + 81a^3b^5c^2e*k*m^2z^2 + 81a^3b^5c^2d*l*m^2z^2 + 81a^3b^4c^3h*j^2k*lmz^2 + 81a^3b^4c^3g*j^2l*mz^2 - 81a^2b^6c^2f*j^2mz^2 - 648a^4b^3c^3g*h*m^2z^2 + 486a^4b^2c^4g*j*k^2z^2 - 486a^4b^2c^4e*k^2l*mz^2 + 486a^3b^2c^5d^2k*mz^2 - 162a^4b^2c^4d*k^2mz^2 + 81a^3b^5c^2g*h*m^2z^2 - 81a^3b^4c^3g*j*k^2z^2 + 81a^3b^4c^3e*k^2l*mz^2 + 81a^3b^3c^4g^2j*kz^2 - 81a^2b^4c^4d^2k*mz^2 + 486a^4b^2c^4e*j*lmz^2 - 486a^4b^2c^4d*k*lmz^2 - 162a^3b^2c^5e^2j*lmz^2 - 81a^3b^4c^3e*j*lmz^2 + 81a^3b^4c^3d*k*lmz^2 - 81a^3b^4c^3d*k*lmz^2 - 81a^3b^4c^3d*k*lmz^2
\end{aligned}$$



$$\begin{aligned}
& b^3c^4g^2h^1z^2 - 1458a^4b^2c^4f^h^1z^2 + 648a^3b^4c^3f^h^1z^2 - 567a^3b^3c^4f^h^2z^2 + 486a^3b^2c^5e^2h^mz^2 - 81a^3b^3c^4g^2h^2kz^2 + 81a^3b^3c^4e^h^2mz^2 - 81a^2b^6c^2f^h^1z^2 + 81a^2b^5c^3f^h^2z^2 - 81a^2b^4c^4e^2h^mz^2 - 1296a^4b^2c^4e^g^2mz^2 - 1296a^4b^2c^4d^h^mz^2 + 648a^3b^4c^3e^g^2mz^2 + 648a^3b^4c^3d^h^mz^2 + 81a^3b^3c^4d^j^kz^2 - 81a^2b^6c^2e^g^2mz^2 - 81a^2b^6c^2d^h^mz^2 + 81a^2b^3c^5d^2j^kz^2 - 567a^3b^3c^4f^g^2kz^2 - 567a^2b^3c^5d^2g^2mz^2 + 486a^3b^2c^5f^g^2kz^2 - 486a^3b^2c^5e^g^2mz^2 + 486a^3b^2c^5d^g^2mz^2 - 81a^3b^3c^4e^h^kz^2 + 81a^2b^5c^3f^g^2kz^2 - 81a^2b^4c^4f^g^2kz^2 + 81a^2b^4c^4e^g^2mz^2 - 81a^2b^4c^4d^g^2mz^2 - 81a^2b^3c^5d^2h^1z^2 - 567a^3b^3c^4e^f^1z^2 - 486a^3b^2c^5d^h^2kz^2 - 162a^3b^2c^5e^h^2jz^2 - 81a^3b^3c^4d^g^1z^2 + 81a^2b^5c^3e^f^1z^2 + 81a^2b^4c^4d^h^2kz^2 + 81a^2b^3c^5e^2h^jz^2 - 81a^2b^3c^5e^2g^2kz^2 + 81a^2b^3c^5e^2f^1z^2 + 1944a^3b^3c^4d^e^mz^2 - 729a^2b^5c^3d^e^mz^2 + 648a^3b^2c^5e^g^2jz^2 + 648a^3b^2c^5d^h^2jz^2 - 81a^2b^4c^4e^g^2jz^2 - 81a^2b^4c^4d^h^2jz^2 + 486a^3b^2c^5d^f^kz^2 + 486a^2b^2c^6d^2g^2jz^2 - 486a^2b^2c^6d^2e^1z^2 - 162a^2b^2c^6d^2f^kz^2 - 81a^2b^4c^4d^f^kz^2 + 81a^2b^3c^5d^g^2jz^2 - 486a^2b^2c^6d^2e^2kz^2 - 81a^2b^3c^5e^g^2h^1z^2 - 648a^2b^3c^5d^e^jz^2 - 162a^2b^2c^6e^2f^h^1z^2 + 81a^2b^3c^5e^f^h^2z^2 - 81a^2b^3c^5d^g^h^2z^2 - 162a^2b^2c^6d^f^g^2z^2 - 189a^5b^3c^2l^3mz^2 + 162a^5b^2c^3k^3mz^2 - 27a^4b^4c^2k^3mz^2 - 702a^4b^3c^3j^3mz^2 - 81a^3b^6c^2j^2mz^2 + 81a^3b^5c^2j^3mz^2 - 54a^5b^3c^2j^3mz^2 - 486a^5b^2c^3j^1l^3z^2 + 216a^4b^4c^2j^1l^3z^2 - 189a^4b^3c^3j^k^3z^2 - 54a^4b^2c^4h^3mz^2 + 27a^3b^5c^2j^k^3z^2 + 27a^3b^3c^4g^3mz^2 - 810a^4b^4c^2f^m^3z^2 + 540a^5b^2c^3f^m^3z^2 - 324a^3b^2c^5f^3mz^2 + 54a^2b^4c^4f^3mz^2 + 675a^4b^3c^3f^1l^3z^2 - 243a^3b^5c^2f^1l^3z^2 - 189a^2b^3c^5e^3mz^2 + 27a^3b^3c^4h^3jz^2 - 486a^4b^2c^4f^k^3z^2 - 486a^2b^2c^6d^3mz^2 + 216a^3b^4c^3f^k^3z^2 - 54a^3b^2c^5g^3jz^2 - 27a^2b^6c^2f^k^3z^2 - 270a^3b^3c^4f^j^3z^2 - 54a^2b^3c^5f^3jz^2 + 27a^2b^5c^3f^j^3z^2 + 162a^2b^2c^6e^3jz^2 + 162a^3b^2c^5f^h^3z^2 - 27a^2b^4c^4f^h^3z^2 + 27a^2b^3c^5f^g^3z^2 + 81a^2b^2c^7d^2e^2z^2 - 648a^6c^4h^1z^2 + 648a^5c^5g^2k^mz^2 - 648a^5c^5h^2j^1z^2 + 1296a^5c^5h^2j^2kz^2 + 1296a^5c^5g^2j^2z^2 + 1296a^5c^5f^j^2mz^2 - 648a^5c^5g^2j^kz^2 + 648a^5c^5e^k^2z^2 + 648a^5c^5d^k^2mz^2 - 648a^4c^6d^2k^mz^2 - 648a^5c^5e^j^1z^2 + 648a^5c^5d^k^1z^2 + 648a^4c^6e^2j^1z^2 + 324a^6b^c^3l^3mz^2 + 27a^4b^5c^1l^3mz^2 + 648a^5c^5f^h^1z^2 - 648a^4c^6e^2h^mz^2 + 1512a^5b^c^4j^3mz^2 + 1080a^6b^c^3j^3mz^2 - 162a^4b^5c^2j^3mz^2 - 648a^4c^6f^g^2kz^2 + 648a^4c^6e^g^2mz^2 - 648a^4c^6d^g^2mz^2 - 27a^3b^6c^2j^1l^3z^2 + 648a^4c^6e^h^2jz^2 + 648a^4c^6d^h^2kz^2 + 324a^5b^c^4j^k^3z^2 - 1296a^4c^6e^g^2jz^2 - 1296a^4c^6d^h^2jz^2 - 108a^4b^c^5g^3mz^2 - 648a^4c^6d^f^kz^2 - 648a^3c^7d^2g^2jz^2 + 648a^3c^7d^2f^kz^2 + 648a^3c^7d^2e^1z^2 + 270a^3b^6c^2f^m^3z^2 + 648a^3c^7d^2e^2kz^2 - 540a^5b^c^4f^1l^3z^2 + 324a^3b^c^6e^3mz^2 - 108a^4b^c^5h^3jz^2 + 27a^2b^7c^2f^1l^3z^2 + 27a^2b^5c^4e^3mz^2 + 648a^3c^7e^2f^h^1z^2 + 216a^2b^4c^5d^3mz^2 + 648a^4b^c^5f^j^3z^2 + 216a^3b^c^6f^3jz^2 + 648a^3c^7d^2f^g^2z^2 - 27a^2b^4c^5e^3jz^2 + 324a^2b^c^7d^3jz^2 - 189a^2b^3c^6d^3jz^2 - 108a^3b^c^6f^g^3z^2 - 108a^2b^c^7e^3fz^2 + 27a^2b^3c^6e^3fz^2 + 162a^2b^2c^7d^3fz^2 - 1134a^5b^2c^3j^2mz^2 + 648a^4b^4c^2j^2mz^2 + 81a^5b^2c^3k^2l^2z^2 + 162a^4b^2c^4f^2mz^2 + 81a^4b^2c^4h^2kz^2 + 81a^4b^2c^4g^2mz^2 + 162a^3b^2c^5f^2jz^2 + 81a^3b^2c^5e^2kz^2 + 81a^3b^2c^5d^2mz^2 + 81a^3b^2c^5g^2h^2z^2 + 81a^2b^2c^6e^2g^2z^2 + 81a^2b^2c^6d^2h^2z^2 - 216a^6c^4k^3mz^2 + 216a^6c^4j^1l^3z^2 + 27a^3b^7j^3mz^2 + 216a^5
\end{aligned}$$

$$\begin{aligned}
& c^5 h^3 m^2 z^2 + 432 a^6 c^4 f m^3 z^2 + 432 a^4 c^6 f^3 m^2 z^2 - 27 b^6 c^4 d^3 m^2 z^2 - 27 a^2 b^8 f m^3 z^2 + 216 a^5 c^5 f k^3 z^2 + 216 a^4 c^6 g^3 j z^2 + 216 a^3 c^7 d^3 m^2 z^2 + 216 a^5 b^4 c m^4 z^2 - 216 a^3 c^7 e^3 j z^2 + 27 b^5 c^5 d^3 j z^2 - 216 a^4 c^6 f h^3 z^2 - 27 b^4 c^6 d^3 f z^2 - 216 a^2 c^8 d^3 f z^2 - 648 a^6 c^4 j^2 m^2 z^2 - 324 a^6 c^4 k^2 l^2 z^2 - 648 a^5 c^5 f^2 m^2 z^2 - 324 a^5 c^5 h^2 k^2 z^2 - 324 a^5 c^5 g^2 l^2 z^2 - 648 a^4 c^6 f^2 j^2 z^2 - 324 a^4 c^6 e^2 k^2 z^2 - 324 a^4 c^6 d^2 l^2 z^2 - 405 a^6 b^2 c^2 m^4 z^2 - 324 a^4 c^6 g^2 h^2 z^2 - 324 a^3 c^7 e^2 g^2 z^2 - 324 a^3 c^7 d^2 h^2 z^2 + 243 a^4 b^2 c^4 j^4 z^2 - 27 a^3 b^4 c^3 j^4 z^2 - 324 a^2 c^8 d^2 e^2 z^2 + 27 a^2 b^2 c^6 f^4 z^2 - 108 a^7 c^3 m^4 z^2 - 27 a^4 b^6 m^4 z^2 - 540 a^5 c^5 j^4 z^2 - 108 a^3 c^7 f^4 z^2 - 216 a^5 b^3 c^3 f j k l m z - 54 a^3 b^5 c f j k l m z + 27 a^3 b^5 c g h k l m z - 27 a^2 b^6 c e g k l m z - 27 a^2 b^6 c d h k l m z + 432 a^4 b c^4 d g j k m z - 432 a^4 b c^4 d e k l m z + 216 a^4 b c^4 e g j k l z + 216 a^4 b c^4 e f j k m z + 216 a^4 b c^4 d h j k l z + 216 a^4 b c^4 d f j l m z + 216 a^4 b c^4 f g h j m z - 27 a b^6 c^2 d e j k l z - 27 a b^6 c^2 d e h k m z - 27 a b^6 c^2 d e g l m z + 216 a^3 b c^5 d e h j k z + 216 a^3 b c^5 d e g j l z - 216 a^3 b c^5 d e f j m z + 27 a b^5 c^3 d e h j k z + 27 a b^5 c^3 d e g j l z + 27 a b^5 c^3 d e g h m z - 27 a b^4 c^4 d e g h j z + 27 a b^7 c^4 d e k l m z + 270 a^4 b^3 c^2 f j k l m z - 108 a^4 b^3 c^2 g h k l m z - 216 a^4 b^2 c^3 f h j k m z - 216 a^4 b^2 c^3 f g j l m z - 216 a^4 b^2 c^3 e g k l m z - 216 a^4 b^2 c^3 d h k l m z + 162 a^3 b^4 c^2 e g k l m z + 162 a^3 b^4 c^2 d h k l m z + 108 a^4 b^2 c^3 g h j k l z + 108 a^4 b^2 c^3 e h j l m z + 54 a^3 b^4 c^2 f h j k m z + 54 a^3 b^4 c^2 f g j l m z - 27 a^3 b^4 c^2 g h j k l z + 540 a^3 b^3 c^3 d e k l m z - 216 a^2 b^5 c^2 d e k l m z - 162 a^3 b^3 c^3 e g j k l z - 162 a^3 b^3 c^3 d h j k l z - 108 a^3 b^3 c^3 d g j k m z - 54 a^3 b^3 c^3 e f j k m z - 54 a^3 b^3 c^3 d f j l m z + 27 a^2 b^5 c^2 e g j k l z + 27 a^2 b^5 c^2 d h j k l z - 108 a^3 b^3 c^3 e g h k m z - 108 a^3 b^3 c^3 d g h l m z - 54 a^3 b^3 c^3 f g h j m z + 27 a^2 b^5 c^2 e g h k m z + 27 a^2 b^5 c^2 d g h l m z - 540 a^3 b^2 c^4 d e j k l z + 216 a^2 b^4 c^3 d e j k l z - 216 a^3 b^2 c^4 d e h k m z - 216 a^3 b^2 c^4 d e g l m z + 162 a^2 b^4 c^3 d e h k m z + 162 a^2 b^4 c^3 d e g l m z + 108 a^3 b^2 c^4 e g h j k z - 108 a^3 b^2 c^4 e f h j l z + 108 a^3 b^2 c^4 d g h j l z + 108 a^3 b^2 c^4 d f g k m z - 27 a^2 b^4 c^3 e g h j k z - 27 a^2 b^4 c^3 d g h j l z - 162 a^2 b^3 c^4 d e h j k z - 162 a^2 b^3 c^4 d e g j l z + 54 a^2 b^3 c^4 d e f j m z - 108 a^2 b^3 c^4 d e g h m z + 108 a^2 b^2 c^5 d e g h j z + 324 a^6 b c^2 j k l m^2 z - 81 a^5 b^3 c^3 j k l m^2 z + 27 a^4 b^4 c^3 j^2 k l m z - 27 a^4 b^4 c^3 h k^2 l m z - 27 a^4 b^4 c^3 g k l^2 m z + 216 a^5 b c^3 h j^2 k m z + 216 a^5 b c^3 g j^2 l m z + 54 a^4 b^4 c^3 f k l m^2 z + 27 a^4 b^4 c^3 h j k m^2 z + 27 a^2 b^6 c^3 f^2 k l m z + 216 a^5 b c^3 e k^2 l m z - 108 a^5 b c^3 h j k^2 l z + 27 a^3 b^5 c^3 e k^2 l m z + 216 a^5 b c^3 d k l^2 m z + 216 a^4 b c^4 e^2 j l m z - 108 a^5 b c^3 g j k l^2 z + 27 a^3 b^5 c^3 d k l^2 m z - 324 a^5 b c^3 e j k m^2 z - 324 a^5 b c^3 d j l m^2 z - 216 a^5 b c^3 f h l^2 m z - 108 a^4 b c^4 f^2 j k l z - 27 a^3 b^5 c^3 e j k m^2 z - 27 a^3 b^5 c^3 d j l m^2 z - 324 a^5 b c^3 g h j m^2 z + 216 a^5 b c^3 f h k m^2 z + 216 a^5 b c^3 f g l m^2 z + 216 a^5 b c^3 e h l m^2 z - 216 a^4 b c^4 f^2 h k m z - 216 a^4 b c^4 f^2 g l m z - 27 a^3 b^5 c^3 g h j m^2 z + 216 a^4 b c^4 e g^2 l m z - 108 a^4 b c^4 g^2 h j l z - 216 a^4 b c^4 f h^2 j l z + 216 a^4 b c^4 e h^2 j m z + 216 a^4 b c^4 d h^2 k m z - 108 a^4 b c^4 g h^2 j k z - 432 a^4 b c^4 e g j^2 m z - 432 a^4 b c^4 d h j^2 m z + 216 a^4 b c^4 f h j^2 k z + 216 a^4 b c^4 f g j^2 l z + 27 a^2 b^6 c^3 e g j m^2 z + 27 a^2 b^6 c^3 d h j m^2 z - 432 a^3 b c^5 d^2 g j m z - 216 a^4 b c^4 f g j k^2 z + 216 a^3 b c^5 d^2 f k m z + 216 a^3 b c^5 d^2 e l m z - 108 a^4 b c^4 e h j k^2 z - 108 a^4 b c^4 d g k^2 l z - 108 a^3 b c^5 d^2 h j l z + 108 a^3 b c^5 d^2 g k l z - 54 a b^5 c^3 d^2 g j m z + 27 a b^5 c^3 d^2 g k l z + 27 a b^5 c^3 d^2 e l m z - 216 a^4 b c^4 e f j l^2 z + 216 a^3 b c^5 d e^2 k m z - 108 a^4 b c^4 d g j l^2 z - 108 a^3 b c^5 e^2 g j k z + 27 a b^5 c^3 d e^2 k m z + 324 a^4 b c^4 d e j m^2 z + 21
\end{aligned}$$

$$\begin{aligned}
& 6a^3b^5c^5e^2f^2h^2m^2z - 108a^4b^5c^4e^2g^2h^2m^2z + 108a^3b^5c^5e^2g^2h^2m^2z + 108a^3b^5c^5e^2f^2j^2k^2m^2z + 108a^3b^5c^5d^2f^2j^2k^2m^2z + 27a^3b^6c^2d^2e^2j^2m^2z - 216a^3b^5c^5e^2f^2h^2m^2z + 108a^3b^5c^5f^2g^2h^2j^2m^2z - 27a^3b^4c^4d^2e^2j^2k^2m^2z + 216a^3b^5c^5d^2f^2g^2m^2z - 108a^3b^5c^5e^2g^2h^2j^2m^2z + 54a^3b^4c^4d^2e^2f^2g^2m^2z - 27a^3b^4c^4d^2g^2h^2k^2m^2z - 27a^3b^4c^4d^2e^2h^2m^2z - 27a^3b^4c^4d^2e^2j^2k^2m^2z - 108a^3b^5c^5d^2g^2h^2j^2m^2z + 54a^3b^4c^4d^2e^2h^2m^2z + 27a^3b^6c^2d^2e^2h^2m^2z - 27a^3b^5c^3d^2e^2h^2m^2z - 27a^3b^4c^4d^2e^2g^2m^2z - 27a^3b^4c^4d^2e^2f^2m^2z + 216a^2b^5c^6d^2f^2g^2j^2m^2z - 108a^3b^5c^5d^2e^2g^2k^2m^2z - 108a^2b^5c^6d^2e^2h^2j^2m^2z + 108a^2b^5c^6d^2e^2g^2k^2m^2z - 54a^3b^3c^5d^2f^2g^2j^2m^2z - 27a^3b^5c^3d^2e^2g^2k^2m^2z + 27a^3b^4c^4d^2e^2g^2k^2m^2z + 27a^3b^3c^5d^2e^2h^2j^2m^2z - 27a^3b^3c^5d^2e^2g^2k^2m^2z - 108a^2b^5c^6d^2e^2g^2j^2m^2z + 27a^3b^3c^5d^2e^2g^2j^2m^2z - 108a^2b^5c^6d^2e^2f^2j^2m^2z + 27a^3b^3c^5d^2e^2f^2j^2m^2z - 432a^5c^4e^2h^2j^2k^2m^2z + 432a^4c^5d^2e^2j^2k^2m^2z + 432a^4c^5e^2f^2h^2j^2k^2m^2z - 432a^4c^5d^2f^2g^2k^2m^2z - 27a^3b^7c^2d^2e^2j^2m^2z - 54a^5b^2c^2j^2k^2m^2z + 108a^5b^2c^2h^2k^2m^2z + 108a^5b^2c^2g^2k^2m^2z - 54a^5b^2c^2h^2j^2k^2m^2z + 378a^4b^2c^3f^2k^2m^2z - 270a^5b^2c^2f^2k^2m^2z - 189a^3b^4c^2f^2k^2m^2z - 108a^5b^2c^2h^2j^2k^2m^2z - 108a^5b^2c^2g^2j^2k^2m^2z - 54a^4b^3c^2h^2j^2k^2m^2z - 54a^4b^3c^2g^2j^2k^2m^2z - 162a^4b^3c^2e^2k^2m^2z + 54a^4b^2c^3g^2j^2k^2m^2z + 27a^4b^3c^2h^2j^2k^2m^2z - 162a^4b^3c^2d^2k^2m^2z + 108a^4b^2c^3g^2h^2k^2m^2z - 54a^3b^3c^3e^2j^2k^2m^2z + 27a^4b^3c^2g^2j^2k^2m^2z - 27a^3b^4c^2g^2h^2k^2m^2z - 270a^4b^2c^3f^2j^2k^2m^2z + 189a^4b^3c^2e^2j^2k^2m^2z + 189a^4b^3c^2d^2j^2k^2m^2z - 162a^4b^2c^3e^2j^2k^2m^2z - 162a^4b^2c^3d^2j^2k^2m^2z + 135a^3b^3c^3f^2j^2k^2m^2z + 108a^4b^2c^3g^2h^2k^2m^2z + 54a^4b^3c^2f^2h^2k^2m^2z - 54a^4b^2c^3f^2h^2k^2m^2z + 54a^3b^4c^2f^2j^2k^2m^2z - 27a^3b^4c^2g^2h^2k^2m^2z + 27a^3b^4c^2e^2j^2k^2m^2z + 27a^3b^4c^2d^2j^2k^2m^2z - 27a^2b^5c^2f^2j^2k^2m^2z - 270a^3b^2c^4d^2j^2k^2m^2z + 189a^4b^3c^2g^2h^2j^2m^2z - 162a^4b^2c^3g^2h^2j^2m^2z + 162a^4b^2c^3e^2j^2k^2m^2z + 162a^3b^3c^3f^2h^2k^2m^2z + 162a^3b^3c^3f^2g^2k^2m^2z - 54a^4b^3c^2f^2h^2k^2m^2z - 54a^4b^3c^2f^2g^2k^2m^2z - 54a^4b^3c^2e^2h^2k^2m^2z + 54a^4b^2c^3d^2j^2k^2m^2z + 54a^4b^2c^3d^2j^2k^2m^2z + 27a^3b^4c^2g^2h^2j^2m^2z - 27a^3b^4c^2e^2j^2k^2m^2z - 27a^2b^5c^2f^2g^2k^2m^2z + 162a^4b^2c^3d^2j^2k^2m^2z - 162a^3b^3c^3e^2g^2k^2m^2z + 108a^4b^2c^3e^2h^2k^2m^2z + 108a^3b^2c^4d^2h^2k^2m^2z - 54a^4b^2c^3f^2g^2k^2m^2z - 27a^3b^4c^2e^2h^2k^2m^2z - 27a^3b^4c^2d^2j^2k^2m^2z + 27a^3b^3c^3g^2h^2j^2k^2m^2z + 27a^2b^5c^2e^2g^2k^2m^2z - 27a^2b^4c^3d^2h^2k^2m^2z + 270a^4b^2c^3f^2h^2j^2k^2m^2z - 270a^3b^2c^4e^2h^2j^2k^2m^2z - 162a^4b^2c^3e^2h^2k^2m^2z - 162a^3b^3c^3d^2h^2k^2m^2z + 162a^3b^2c^4e^2h^2k^2m^2z + 108a^4b^2c^3d^2g^2k^2m^2z + 108a^3b^2c^4e^2g^2k^2m^2z - 54a^4b^2c^3e^2f^2k^2m^2z - 54a^3b^4c^2f^2h^2j^2k^2m^2z + 54a^3b^3c^3f^2h^2j^2k^2m^2z - 54a^3b^3c^3e^2h^2j^2k^2m^2z + 54a^3b^2c^4e^2f^2k^2m^2z + 54a^2b^4c^3e^2h^2j^2k^2m^2z + 27a^3b^4c^2e^2h^2k^2m^2z - 27a^3b^4c^2d^2g^2k^2m^2z + 27a^3b^3c^3g^2h^2j^2k^2m^2z + 27a^2b^5c^2d^2h^2k^2m^2z - 27a^2b^4c^3e^2h^2k^2m^2z - 27a^2b^4c^3e^2g^2k^2m^2z + 432a^4b^2c^3e^2g^2j^2m^2z + 432a^4b^2c^3d^2h^2j^2m^2z - 270a^4b^2c^3d^2g^2k^2m^2z - 216a^3b^4c^2e^2g^2j^2m^2z - 216a^3b^4c^2d^2h^2j^2m^2z + 216a^3b^3c^3e^2g^2j^2m^2z + 216a^3b^3c^3d^2h^2j^2m^2z - 162a^3b^2c^4e^2f^2k^2m^2z - 162a^3b^2c^4d^2f^2k^2m^2z - 108a^3b^2c^4f^2h^2j^2k^2m^2z - 108a^3b^2c^4f^2g^2j^2k^2m^2z + 54a^4b^2c^3e^2f^2k^2m^2z + 54a^4b^2c^3d^2f^2k^2m^2z + 54a^3b^4c^2d^2g^2k^2m^2z - 54a^3b^3c^3f^2h^2j^2k^2m^2z - 54a^3b^3c^3f^2g^2j^2k^2m^2z - 27a^2b^5c^2e^2g^2j^2m^2z - 27a^2b^5c^2d^2h^2j^2m^2z + 27a^2b^4c^3f^2h^2j^2k^2m^2z + 27a^2b^4c^3f^2g^2j^2k^2m^2z + 27a^2b^4c^3d^2f^2k^2m^2z + 324a^2b^3c^4d^2g^2j^2m^2z - 270a^3b^2c^4d^2g^2j^2m^2z - 162a^3b^2c^4f^2g^2h^2m^2z + 162a^3b^2c^4e^2g^2j^2k^2m^2z - 162a^2b^3c^4d^2e^2k^2m^2z - 135a^2b^3c^4d^2g^2k^2m^2z + 108a^3b^2c^4d^2g^2k^2m^2z + 54a^4b^2c^3f^2g^2h^2m^2z + 54a^3b^3c^3f^2g^2j^2k^2m^2z - 54a^3b^2c^4f^2g^2j^2k^2m^2z + 54a^2b^4c^3d^2g^2j^2m^2z - 54a^2b^3c^4d^2f^2k^2m^2z + 27a^3b^3c^3e^2h^2j^2k^2m^2z + 27a^3b^3c^3d^2g^2k^2m^2z + 27a^2b^4c^3f^2g^2h^2m^2z - 27a^2
\end{aligned}$$

$$\begin{aligned}
& *b^4*c^3*e*g^2*j*1*z - 27*a^2*b^4*c^3*d*g^2*k*1*z + 27*a^2*b^3*c^4*d^2*h*j* \\
& 1*z + 162*a^3*b^2*c^4*d*h^2*j*k*z - 162*a^2*b^3*c^4*d*e^2*k*m*z + 108*a^3*b \\
& ^2*c^4*e*g^2*h*m*z + 54*a^3*b^3*c^3*e*f*j*1^2*z + 27*a^3*b^3*c^3*d*g*j*1^2* \\
& z - 27*a^2*b^4*c^3*e*g^2*h*m*z - 27*a^2*b^4*c^3*d*h^2*j*k*z + 27*a^2*b^3*c^ \\
& 4*e^2*g*j*k*z - 621*a^3*b^3*c^3*d*e*j*m^2*z + 594*a^3*b^2*c^4*d*e*j^2*m*z + \\
& 243*a^2*b^5*c^2*d*e*j*m^2*z - 243*a^2*b^4*c^3*d*e*j^2*m*z + 135*a^3*b^3*c^ \\
& 3*e*g*h*1^2*z - 108*a^3*b^2*c^4*e*g*h^2*1*z + 108*a^3*b^2*c^4*d*g*h^2*m*z + \\
& 54*a^3*b^2*c^4*e*f*j^2*k*z + 54*a^3*b^2*c^4*e*f*h^2*m*z + 54*a^3*b^2*c^4*d \\
& *g*j^2*k*z + 54*a^3*b^2*c^4*d*f*j^2*1*z - 54*a^2*b^3*c^4*e^2*f*h*m*z - 27*a \\
& ^2*b^5*c^2*e*g*h*1^2*z + 27*a^2*b^4*c^3*e*g*h^2*1*z - 27*a^2*b^4*c^3*d*g*h^ \\
& 2*m*z - 27*a^2*b^3*c^4*e^2*g*h*1*z - 27*a^2*b^3*c^4*e*f^2*j*k*z - 27*a^2*b^ \\
& 3*c^4*d*f^2*j*1*z + 162*a^2*b^2*c^5*d^2*e*j*1*z + 54*a^3*b^2*c^4*f*g*h*j^2* \\
& z - 54*a^3*b^2*c^4*d*f*j*k^2*z + 54*a^2*b^3*c^4*e*f^2*h*1*z + 54*a^2*b^2*c^ \\
& 5*d^2*f*j*k*z - 27*a^2*b^3*c^4*f^2*g*h*j*z - 270*a^2*b^2*c^5*d^2*f*g*m*z - \\
& 162*a^3*b^2*c^4*d*g*h*k^2*z + 162*a^2*b^2*c^5*d^2*g*h*k*z + 162*a^2*b^2*c^5 \\
& *d*e^2*j*k*z + 108*a^2*b^2*c^5*d^2*e*h*m*z - 54*a^2*b^3*c^4*d*f*g^2*m*z + 2 \\
& 7*a^2*b^4*c^3*d*g*h*k^2*z + 27*a^2*b^3*c^4*e*g^2*h*j*z + 270*a^3*b^2*c^4*d* \\
& e*h*1^2*z - 270*a^2*b^2*c^5*d*e^2*h*1*z - 162*a^2*b^4*c^3*d*e*h*1^2*z + 108 \\
& *a^2*b^3*c^4*d*e*h^2*1*z + 108*a^2*b^2*c^5*d*e^2*g*m*z + 54*a^2*b^2*c^5*e^2 \\
& *f*h*j*z + 27*a^2*b^3*c^4*d*g*h^2*j*z + 162*a^2*b^2*c^5*d*e*f^2*m*z - 54*a^ \\
& 3*b^2*c^4*d*e*f*m^2*z - 54*a^2*b^2*c^5*d*f^2*g*k*z + 135*a^2*b^3*c^4*d*e*g* \\
& k^2*z - 108*a^2*b^2*c^5*d*e*g^2*k*z + 54*a^2*b^2*c^5*d*f*g^2*j*z - 54*a^2*b \\
& ^2*c^5*d*e*f*j^2*z - 9*a*b^7*c*d*e*1^3*z - 36*a*b*c^7*d^3*e*g*z - 108*a^6*b \\
& *c^2*k^2*1^2*m*z + 27*a^5*b^3*c*k^2*1^2*m*z - 18*a^5*b^2*c^2*j*k^3*m*z - 27 \\
& *a^4*b^3*c^2*j^3*k*1*z - 108*a^5*b*c^3*h^2*k^2*m*z - 108*a^5*b*c^3*g^2*1^2* \\
& m*z + 108*a^5*b*c^3*h^2*k*1^2*z + 108*a^5*b*c^3*g^2*k*m^2*z + 90*a^5*b^2*c^ \\
& 2*f*1^3*m*z - 18*a^5*b^2*c^2*h*k*1^3*z + 18*a^4*b^2*c^3*h^3*k*1*z + 18*a^4* \\
& b^2*c^3*h^3*j*m*z - 108*a^5*b*c^3*h*j^2*1^2*z + 18*a^4*b^3*c^2*f*k^3*m*z - \\
& 18*a^3*b^3*c^3*g^3*j*m*z - 9*a^4*b^3*c^2*g*k^3*1*z + 9*a^3*b^3*c^3*g^3*k*1* \\
& z + 252*a^4*b^2*c^3*f*j^3*m*z + 216*a^5*b*c^3*f*j^2*m^2*z + 180*a^3*b^2*c^4 \\
& *f^3*j*m*z - 108*a^4*b*c^4*e^2*k^2*m*z - 108*a^4*b*c^4*d^2*1^2*m*z + 90*a^5 \\
& *b^2*c^2*e*k*m^3*z + 90*a^5*b^2*c^2*d*1*m^3*z - 90*a^3*b^2*c^4*f^3*k*1*z + \\
& 54*a^3*b^5*c*f*j^2*m^2*z - 54*a^3*b^4*c^2*f*j^3*m*z + 36*a^5*b^2*c^2*f*j*m^ \\
& 3*z + 36*a^4*b^2*c^3*h*j^3*k*z + 36*a^4*b^2*c^3*g*j^3*1*z - 36*a^2*b^4*c^3* \\
& f^3*j*m*z - 27*a^2*b^6*c*f^2*j*m^2*z + 18*a^2*b^4*c^3*f^3*k*1*z - 216*a^4*b \\
& *c^4*d^2*k*m^2*z + 108*a^5*b*c^3*d*k^2*m^2*z - 108*a^4*b^3*c^2*f*j*1^3*z - \\
& 108*a^4*b*c^4*g^2*h^2*m*z + 108*a^2*b^3*c^4*e^3*j*m*z + 90*a^5*b^2*c^2*g*h* \\
& m^3*z + 54*a^4*b^3*c^2*e*k*1^3*z - 54*a^2*b^3*c^4*e^3*k*1*z + 234*a^2*b^2*c \\
& ^5*d^3*j*m*z - 144*a^2*b^2*c^5*d^3*k*1*z + 90*a^4*b^2*c^3*f*j*k^3*z - 72*a^ \\
& 4*b^2*c^3*d*k^3*1*z + 27*a^4*b^3*c^2*g*h*1^3*z - 27*a^3*b^3*c^3*g*h^3*1*z - \\
& 18*a^3*b^4*c^2*f*j*k^3*z + 9*a^3*b^4*c^2*d*k^3*1*z + 216*a^4*b*c^4*f^2*h*1 \\
& ^2*z - 216*a^4*b*c^4*e^2*h*m^2*z + 108*a^4*b*c^4*g^2*h*k^2*z - 18*a^4*b^2*c \\
& ^3*g*h*k^3*z + 18*a^3*b^2*c^4*g^3*h*k*z + 18*a^3*b^2*c^4*f*g^3*m*z + 9*a^3* \\
& b^4*c^2*g*h*k^3*z - 9*a^3*b^3*c^3*e*j^3*k*z - 9*a^3*b^3*c^3*d*j^3*1*z - 144 \\
& *a^4*b^3*c^2*e*g*m^3*z - 144*a^4*b^3*c^2*d*h*m^3*z - 108*a^3*b*c^5*e^2*g^2* \\
& m*z + 108*a^3*b*c^5*d^2*j^2*k*z - 108*a^3*b*c^5*d^2*h^2*m*z - 18*a^2*b^3*c^ \\
& 4*f^3*h*k*z - 18*a^2*b^3*c^4*f^3*g*1*z - 9*a^3*b^3*c^3*g*h*j^3*z - 216*a^4* \\
& b*c^4*d*g^2*m^2*z + 144*a^4*b^2*c^3*e*g*1^3*z - 126*a^3*b^2*c^4*d*h^3*1*z - \\
& 108*a^4*b*c^4*d*h^2*1^2*z - 108*a^3*b*c^5*f^2*g^2*k*z - 108*a^3*b*c^5*e^2* \\
& h^2*k*z - 90*a^2*b^2*c^5*e^3*f*m*z + 72*a^2*b^2*c^5*e^3*g*1*z - 63*a^3*b^4* \\
& c^2*e*g*1^3*z - 36*a^3*b^4*c^2*d*h*1^3*z + 27*a^2*b^4*c^3*d*h^3*1*z + 27*a* \\
& b^6*c^2*d^2*g*m^2*z - 18*a^4*b^2*c^3*d*h*1^3*z - 18*a^3*b^2*c^4*f*h^3*j*z - \\
& 18*a^3*b^2*c^4*e*h^3*k*z + 18*a^2*b^2*c^5*e^3*h*k*z + 108*a^3*b*c^5*e^2*h* \\
& j^2*z + 54*a^3*b^3*c^3*d*h*k^3*z + 27*a^3*b^3*c^3*e*g*k^3*z - 27*a^2*b^3*c^ \\
& 4*e*g^3*k*z + 27*a^2*b^3*c^4*d*g^3*1*z - 27*a*b^4*c^4*d^2*g^2*1*z - 9*a^2*b \\
& ^5*c^2*e*g*k^3*z - 9*a^2*b^5*c^2*d*h*k^3*z + 207*a^3*b^4*c^2*d*e*m^3*z - 10 \\
& 8*a^2*b*c^6*d^2*e^2*m*z - 90*a^4*b^2*c^3*d*e*m^3*z - 72*a^3*b^2*c^4*e*g*j^3 \\
& *z - 72*a^3*b^2*c^4*d*h*j^3*z + 27*a*b^3*c^5*d^2*e^2*m*z + 18*a^2*b^2*c^5*e \\
& *f^3*k*z + 18*a^2*b^2*c^5*d*f^3*1*z + 9*a^2*b^4*c^3*e*g*j^3*z + 9*a^2*b^4*c
\end{aligned}$$

$$\begin{aligned}
&^3d*h*j^3z - 216*a^3*b*c^5*d*e^2*l^2z - 198*a^3*b^3*c^3*d*e*l^3z + 108* \\
&a^3*b*c^5*d*g^2*j^2z - 108*a^3*b*c^5*d*f^2*k^2z + 72*a^2*b^5*c^2*d*e*l^3* \\
&z - 27*a*b^5*c^3*d*e^2*l^2z + 27*a*b^4*c^4*d^2*g*j^2z + 18*a^2*b^2*c^5*f^ \\
&3*g*h*z + 144*a^3*b^2*c^4*d*e*k^3z - 63*a^2*b^4*c^3*d*e*k^3z + 27*a*b^4*c \\
&^4*d^2*e*k^2z - 9*a^2*b^3*c^4*e*g*h^3z - 108*a^2*b*c^6*d^2*g^2*h*z + 81*a \\
&^2*b^3*c^4*d*e*j^3z + 27*a*b^3*c^5*d^2*g^2*h*z - 27*a*b^2*c^6*d^2*e^2*j*z \\
&- 18*a^2*b^2*c^5*d*g^3*h*z + 108*a^2*b*c^6*d*e^2*h^2z - 27*a*b^3*c^5*d*e^2 \\
&*h^2z + 27*a*b^2*c^6*d^2*f^2*g*z - 18*a^2*b^2*c^5*d*e*h^3z - 216*a^6*c^3* \\
&j^2*k*l*m*z + 216*a^6*c^3*h*j*l^2*m*z + 216*a^6*c^3*f*k*l*m^2z - 216*a^5*c \\
&^4*f^2*k*l*m*z - 216*a^5*c^4*g^2*j*k*m*z + 216*a^5*c^4*f*j^2*k*l*z + 216*a^ \\
&5*c^4*f*h^2*l*m*z + 216*a^5*c^4*e*j^2*k*m*z + 216*a^5*c^4*d*j^2*l*m*z + 216 \\
&*a^5*c^4*g*h*j^2*m*z - 216*a^5*c^4*e*j*k^2*l*z - 216*a^5*c^4*d*j*k^2*m*z + \\
&216*a^4*c^5*d^2*j*k*m*z - 18*a^6*b^2*c*k*l*m^3z + 216*a^5*c^4*f*g*k^2*m*z \\
&- 216*a^5*c^4*d*j*k*l^2z - 72*a^6*b*c^2*j*l^3m*z + 18*a^5*b^3*c*j*l^3m*z \\
&- 216*a^5*c^4*f*h*j*l^2z + 216*a^5*c^4*e*h*k*l^2z + 216*a^5*c^4*e*f*l^2* \\
&m*z - 216*a^4*c^5*e^2*h*k*l*z + 216*a^4*c^5*e^2*h*j*m*z - 216*a^4*c^5*e^2*f \\
&*l*m*z - 216*a^5*c^4*e*f*k*m^2z + 216*a^5*c^4*d*g*k*m^2z - 216*a^5*c^4*d* \\
&f*l*m^2z + 216*a^4*c^5*e*f^2*k*m*z + 216*a^4*c^5*d*f^2*l*m*z + 108*a^5*b*c \\
&^3*j^3*k*l*z - 216*a^5*c^4*f*g*h*m^2z + 216*a^4*c^5*f^2*g*h*m*z + 216*a^4* \\
&c^5*f*g^2*j*k*z - 216*a^4*c^5*e*g^2*j*l*z + 216*a^4*c^5*d*g^2*j*m*z - 72*a^ \\
&6*b*c^2*h*k*m^3z - 72*a^6*b*c^2*g*l*m^3z + 54*a^5*b^3*c*h*k*m^3z + 54*a^ \\
&5*b^3*c*g*l*m^3z - 216*a^4*c^5*d*h^2*j*k*z - 18*a^4*b^4*c*f*l^3m*z + 9*a^ \\
&4*b^4*c*h*k*l^3z - 216*a^4*c^5*e*f*j^2*k*z - 216*a^4*c^5*e*f*h^2m*z - 216 \\
&*a^4*c^5*d*g*j^2*k*z - 216*a^4*c^5*d*f*j^2*l*z - 216*a^4*c^5*d*e*j^2m*z - \\
&72*a^5*b*c^3*f*k^3m*z + 72*a^4*b*c^4*g^3*j*m*z + 36*a^5*b*c^3*g*k^3l*z - \\
&36*a^4*b*c^4*g^3*k*l*z - 216*a^4*c^5*f*g*h*j^2z + 216*a^4*c^5*d*f*j*k^2z \\
&- 216*a^3*c^6*d^2*f*j*k*z - 216*a^3*c^6*d^2*e*j*l*z + 72*a^4*b^4*c*f*j*m^3* \\
&z - 63*a^4*b^4*c*e*k*m^3z - 63*a^4*b^4*c*d*l*m^3z + 216*a^4*c^5*d*g*h*k^2 \\
&>*z - 216*a^3*c^6*d^2*g*h*k*z + 216*a^3*c^6*d^2*f*g*m*z - 216*a^3*c^6*d*e^2* \\
&j*k*z + 144*a^5*b*c^3*f*j*l^3z - 144*a^3*b*c^5*e^3*j*m*z - 72*a^5*b*c^3*e* \\
&k*l^3z + 72*a^3*b*c^5*e^3*k*l*z - 63*a^4*b^4*c*g*h*m^3z + 18*a^3*b^5*c*f* \\
&j*l^3z - 18*a*b^5*c^3*e^3*j*m*z - 9*a^3*b^5*c*e*k*l^3z + 9*a*b^5*c^3*e^3* \\
&k*l*z - 216*a^4*c^5*d*e*h*l^2z - 216*a^3*c^6*e^2*f*h*j*z + 216*a^3*c^6*d*e \\
&^2*h*l*z - 126*a*b^4*c^4*d^3*j*m*z + 108*a^4*b*c^4*g*h^3l*z + 63*a*b^4*c^4 \\
&*d^3*k*l*z + 36*a^5*b*c^3*g*h*l^3z - 9*a^3*b^5*c*g*h*l^3z + 216*a^4*c^5*d \\
&*e*f*m^2z + 216*a^3*c^6*d*f^2*g*k*z - 216*a^3*c^6*d*e*f^2m*z + 36*a^4*b*c \\
&^4*e*j^3*k*z + 36*a^4*b*c^4*d*j^3l*z - 216*a^3*c^6*d*f*g^2*j*z + 72*a^3*b^ \\
&5*c*e*g*m^3z + 72*a^3*b^5*c*d*h*m^3z + 72*a^3*b*c^5*f^3*h*k*z + 72*a^3*b* \\
&c^5*f^3*g*l*z + 36*a^4*b*c^4*g*h*j^3z + 18*a*b^4*c^4*e^3*f*m*z + 9*a^2*b^6 \\
&*c*e*g*l^3z + 9*a^2*b^6*c*d*h*l^3z - 9*a*b^4*c^4*e^3*h*k*z - 9*a*b^4*c^4* \\
&e^3*g*l*z + 216*a^3*c^6*d*e*f*j^2z - 144*a^2*b*c^6*d^3*f*m*z + 108*a^3*b*c \\
&^5*e*g^3*k*z - 108*a^3*b*c^5*d*g^3l*z + 108*a*b^3*c^5*d^3*f*m*z - 72*a^4*b \\
&*c^4*d*h*k^3z + 72*a^2*b*c^6*d^3*h*k*z - 54*a*b^3*c^5*d^3*h*k*z + 36*a^4*b \\
&*c^4*e*g*k^3z - 36*a^2*b*c^6*d^3*g*l*z - 27*a*b^3*c^5*d^3*g*l*z - 81*a^2*b \\
&^6*c*d*e*m^3z + 216*a^4*b*c^4*d*e*l^3z + 72*a^2*b*c^6*e^3*f*j*z + 72*a^2* \\
&b*c^6*d*e^3l*z - 18*a*b^3*c^5*e^3*f*j*z - 18*a*b^3*c^5*d*e^3l*z - 90*a*b^ \\
&2*c^6*d^3*f*j*z + 72*a*b^2*c^6*d^3*e*k*z + 36*a^3*b*c^5*e*g*h^3z - 36*a^2* \\
&b*c^6*e^3*g*h*z + 9*a*b^6*c^2*d*e*k^3z + 9*a*b^3*c^5*e^3*g*h*z - 180*a^3*b \\
&*c^5*d*e*j^3z + 18*a*b^2*c^6*d^3*g*h*z - 9*a*b^5*c^3*d*e*j^3z + 18*a*b^2* \\
&c^6*d*e^3h*z + 9*a*b^4*c^4*d*e*h^3z + 36*a^2*b*c^6*d*e*g^3z - 9*a*b^3*c^ \\
&5*d*e*g^3z - 18*a*b^2*c^6*d*e*f^3z + 27*a^5*b^2*c^2*h^2*l*m^2z - 27*a^5* \\
&b^2*c^2*j*k^2l^2z + 27*a^4*b^3*c^2*h^2*k^2m*z + 27*a^4*b^3*c^2*g^2l^2m \\
&>*z + 27*a^5*b^2*c^2*g*k^2m^2z - 27*a^4*b^3*c^2*h^2*k*l^2z - 27*a^4*b^3*c \\
&^2*g^2*k*m^2z - 135*a^4*b^2*c^3*e^2l*m^2z + 27*a^5*b^2*c^2*e*l^2m^2z + \\
&27*a^4*b^3*c^2*h*j^2l^2z - 27*a^4*b^2*c^3*h^2j^2l*z + 27*a^3*b^4*c^2*e \\
&^2l*m^2z - 270*a^4*b^3*c^2*f*j^2m^2z - 270*a^4*b^2*c^3*f^2j*m^2z + 16 \\
&2*a^3*b^4*c^2*f^2j*m^2z - 108*a^3*b^3*c^3*f^2j^2m*z - 27*a^4*b^2*c^3*h^ \\
&2*j*k^2z - 27*a^4*b^2*c^3*g^2j*l^2z + 27*a^3*b^3*c^3*e^2k^2m*z + 27*a^ \\
&3*b^3*c^3*d^2l^2m*z + 27*a^2*b^5*c^2*f^2j^2m*z + 162*a^3*b^3*c^3*d^2k*
\end{aligned}$$

$$\begin{aligned}
& m^2z - 27a^4b^3c^2dk^2m^2z - 27a^4b^2c^3g^2j^2k^2z + 27a^3b^3c^3g^2h^2m^2z - 27a^2b^5c^2d^2k^2m^2z + 162a^3b^2c^4d^2k^2l^2z - 108a^4b^2c^3g^2h^2l^2z - 27a^4b^2c^3e^2j^2l^2z + 27a^3b^4c^2g^2h^2l^2z + 27a^3b^2c^4e^2j^2l^2z - 27a^2b^4c^3d^2k^2l^2z - 162a^3b^3c^3f^2h^2l^2z + 162a^3b^3c^3e^2h^2m^2z - 135a^4b^2c^3e^2h^2m^2z + 135a^3b^2c^4f^2h^2l^2z + 27a^3b^4c^2e^2h^2m^2z - 27a^3b^3c^3g^2h^2k^2z - 27a^3b^2c^4e^2j^2k^2z - 27a^3b^2c^4d^2j^2l^2z + 27a^2b^5c^2f^2h^2l^2z - 27a^2b^5c^2e^2h^2m^2z - 27a^2b^4c^3f^2h^2l^2z - 27a^3b^2c^4g^2h^2j^2z + 27a^2b^3c^4e^2g^2m^2z - 27a^2b^3c^4d^2j^2k^2z + 27a^2b^3c^4d^2h^2m^2z + 351a^3b^2c^4d^2g^2m^2z - 189a^2b^4c^3d^2g^2m^2z + 162a^3b^3c^3d^2g^2m^2z - 162a^3b^2c^4e^2g^2l^2z + 135a^3b^3c^3d^2h^2l^2z + 135a^3b^2c^4f^2g^2k^2z - 27a^2b^5c^2d^2h^2l^2z - 27a^2b^5c^2d^2g^2m^2z - 27a^2b^4c^3f^2g^2k^2z + 27a^2b^4c^3e^2g^2l^2z + 27a^2b^3c^4f^2g^2k^2z + 27a^2b^3c^4e^2h^2k^2z + 135a^3b^2c^4e^2f^2l^2z - 108a^3b^2c^4e^2g^2k^2z + 108a^2b^2c^5d^2g^2l^2z + 27a^3b^2c^4e^2h^2j^2z + 27a^2b^4c^3e^2g^2k^2z - 27a^2b^4c^3e^2f^2l^2z - 27a^2b^3c^4e^2h^2j^2z - 27a^2b^2c^5e^2f^2l^2z - 27a^2b^2c^5e^2g^2j^2z - 27a^2b^2c^5d^2h^2j^2z + 162a^2b^3c^4d^2e^2l^2z - 135a^2b^2c^5d^2g^2j^2z - 27a^2b^3c^4d^2g^2j^2z + 27a^2b^3c^4d^2f^2k^2z - 162a^2b^2c^5d^2e^2k^2z - 27a^2b^2c^5e^2f^2h^2z - 72a^7c^2k^2l^2m^3z + 9a^5b^4k^2l^2m^3z + 72a^6c^3j^2k^3m^2z - 72a^6c^3h^2k^2l^3z - 72a^6c^3f^2l^3m^2z - 72a^5c^4h^3k^2l^2z - 72a^5c^4h^3j^2m^2z - 9a^4b^5h^2k^2m^3z - 9a^4b^5g^2l^2m^3z - 144a^6c^3f^2j^2m^3z - 144a^5c^4h^2j^3k^2z - 144a^5c^4g^2j^3l^2z - 144a^5c^4f^2j^3m^2z - 144a^4c^5f^3j^2m^2z + 72a^6c^3e^2k^2m^3z + 72a^6c^3d^2l^2m^3z + 72a^4c^5f^3k^2l^2z + 72a^6c^3g^2h^2m^3z + 18b^6c^3d^3j^2m^2z - 18a^3b^6f^2j^2m^3z - 9b^6c^3d^3k^2l^2z + 9a^3b^6e^2k^2m^3z + 9a^3b^6d^2l^2m^3z + 144a^5c^4d^2k^3l^2z + 144a^3c^6d^3k^2l^2z - 72a^5c^4f^2j^2k^3z - 72a^3c^6d^3j^2m^2z + 9a^3b^6g^2h^2m^3z - 72a^5c^4g^2h^2k^3z - 72a^4c^5g^3h^2k^2z - 72a^4c^5f^2g^3m^2z - 108a^5b^2c^3j^4m^2z + 63a^6b^2c^2j^2m^4z + 36a^6b^2c^2k^2l^4z - 9a^5b^3c^2k^2l^4z - 144a^5c^4e^2g^2l^3z - 144a^3c^6e^3g^2l^2z + 72a^5c^4d^2h^2l^3z + 72a^4c^5f^2h^3j^2z + 72a^4c^5e^2h^3k^2z + 72a^4c^5d^2h^3l^2z + 72a^3c^6e^3h^2k^2z + 72a^3c^6e^3f^2m^2z - 18b^5c^4d^3f^2m^2z + 9b^5c^4d^3h^2k^2z + 9b^5c^4d^3g^2l^2z - 9a^2b^7e^2g^2m^3z - 9a^2b^7d^2h^2m^3z + 144a^4c^5e^2g^2j^3z + 144a^4c^5d^2h^2j^3z - 72a^5c^4d^2e^2m^3z - 72a^3c^6e^2f^3k^2z - 72a^3c^6d^2f^3l^2z + 144a^6b^2c^2f^2m^4z - 108a^5b^3c^2f^2m^4z - 72a^3c^6f^3g^2h^2z + 36a^5b^2c^3h^2k^4z - 36a^3b^2c^5f^4m^2z + 18b^4c^5d^3f^2j^2z - 9b^4c^5d^3e^2k^2z + 9a^4b^4c^2g^2l^4z - 144a^4c^5d^2e^2k^3z - 144a^2c^7d^3e^2k^2z + 72a^2c^7d^3f^2j^2z - 9b^4c^5d^3g^2h^2z + 72a^3c^6d^2g^3h^2z + 72a^2c^7d^3g^2h^2z - 72a^5b^2c^3d^2l^4z - 72a^4b^2c^4f^2j^4z + 45a^2b^2c^6d^4l^2z - 36a^2b^2c^6e^4k^2z - 9a^3b^5c^2d^2l^4z + 9a^2b^3c^5e^4k^2z - 72a^3c^6d^2e^2h^3z - 72a^2c^7d^2e^3h^2z + 9b^3c^6d^3e^2g^2z + 72a^2c^7d^2e^2f^3z + 36a^3b^2c^5d^2h^4z - 9a^2b^2c^6e^4g^2z + 36a^2b^2c^7d^3f^2z + 90a^5b^2c^2j^3m^2z + 45a^5b^2c^2j^2l^3z + 9a^4b^3c^2j^2k^3z - 9a^4b^3c^2h^3m^2z - 45a^4b^2c^3g^3m^2z + 9a^3b^4c^2g^3m^2z + 198a^4b^3c^2f^2m^3z - 108a^3b^3c^3f^3m^2z + 18a^2b^5c^2f^3m^2z - 117a^4b^2c^3f^2l^3z + 117a^3b^2c^4e^3m^2z + 63a^3b^4c^2f^2l^3z - 63a^2b^4c^3e^3m^2z - 171a^2b^3c^4d^3m^2z - 54a^3b^3c^3f^2k^3z + 9a^3b^2c^4g^3j^2z + 9a^2b^5c^2f^2k^3z + 18a^3b^2c^4f^2j^3z + 18a^2b^3c^4f^3j^2z - 9a^2b^4c^3f^2j^3z - 45a^2b^2c^5e^3j^2z + 9a^2b^3c^4f^2h^3z - 9a^2b^2c^5f^2g^3z + 9a^2b^8d^2e^2m^3z - 36a^2b^2c^7d^4h^2z - 108a^6c^3h^2l^2m^2z + 108a^6c^3j^2k^2l^2z - 108a^6c^3g^2k^2m^2z - 108a^6c^3e^2l^2m^2z + 108a^5c^4h^2j^2l^2z + 108a^5c^4e^2l^2m^2z + 216a^5c^4f^2j^2m^2z + 108a^5c^4h^2j^2k^2z + 108a^5c^4g^2j^2l^2z + 108a^5c^4g^2j^2k^2z - 216a^4c^5d^2k^2l^2z + 108a^5c^4e^2j^2l^2z - 108a^4c^5e^2j^2l^2z - 9a^6b^2c^2l^3m^2z + 108
\end{aligned}$$

$a^5c^4eh^2m^2z - 108a^4c^5f^2h^2l^2z + 108a^4c^5e^2jk^2z + 108a^4c^5d^2j^2l^2z - 144a^6bc^2j^2m^3z + 108a^4c^5g^2h^2jz$   
 $- 27a^4b^4c^2j^3m^2z + 27a^4b^3c^2j^4mz + 9a^5b^2c^2k^4l^2z + 216a^4c^5e^2g^2l^2z - 108a^4c^5f^2g^2k^2z - 108a^4c^5d^2g^2m^2z$   
 $- 9a^4b^4c^2j^2l^3z - 108a^4c^5eh^2j^2z - 108a^4c^5ef^2l^2z + 108a^3c^6e^2f^2l^2z - 36a^5b^3c^2j^2k^3z + 36a^5b^3c^3h^3m^2z$   
 $+ 108a^3c^6e^2g^2jz + 108a^3c^6d^2h^2jz - 216a^5b^3c^3f^2m^3z + 144a^4b^3c^4f^3m^2z + 108a^3c^6d^2g^2j^2z - 72a^3b^5c^2f^2m^3z$   
 $- 45a^5b^2c^2g^2l^4z - 9a^4b^3c^2hk^4z - 9a^3b^2c^4g^4l^2z + 9a^2b^3c^4f^4mz + 216a^3c^6d^2ek^2z - 9a^2b^6c^2f^2l^3z$   
 $+ 9ab^6c^2e^3m^2z + 108a^3c^6ef^2h^2z + 108a^3b^3c^5d^3m^2z + 108a^2c^7d^2e^2jz + 72a^4b^3c^4f^2k^3z + 72ab^5c^3d^3m^2z$   
 $- 72a^3b^3c^5f^3j^2z + 54a^4b^3c^2d^4l^2z - 45a^4b^2c^3ek^4z + 18a^3b^3c^3f^2j^4z + 9a^3b^4c^2ek^4z - 9a^2b^2c^5f^4jz$   
 $- 108a^2c^7d^2f^2g^2z + 9a^3b^2c^4gh^4z + 9ab^4c^4e^3j^2z - 72a^2b^3c^6d^3j^2z + 54ab^3c^5d^3j^2z - 36a^3b^3c^5f^2h^3z$   
 $- 9a^2b^3c^4d^4h^4z + 9a^2b^2c^5eg^4z + 9ab^2c^6e^3f^2z + 36a^7c^2l^3m^2z + 72a^6c^3j^3m^2z - 36a^6c^3j^2l^3z + 9a^4b^5j^2m^3z$   
 $+ 36a^5c^4g^3m^2z + 36a^5c^4f^2l^3z - 36a^4c^5e^3m^2z - 9b^7c^2d^3m^2z + 9a^2b^7f^2m^3z - 36a^4c^5g^3j^2z + 72a^4c^5f^2j^3z$   
 $+ 36a^3c^6e^3j^2z - 9b^5c^4d^3j^2z + 36a^3c^6f^2g^3z - 9a^4b^2c^3j^5z - 36a^2c^7e^3f^2z - 9b^3c^6d^3f^2z + 36a^7c^2jm^4z$   
 $- 36a^6c^3k^4l^2z - 18a^5b^4j^4m^2z + 36a^6c^3g^2l^4z + 36a^4c^5g^4l^2z + 18a^4b^5f^2m^4z - 9b^4c^5d^4l^2z + 36a^5c^4ek^4z$   
 $+ 36a^3c^6f^4jz - 36a^2c^7d^4l^2z - 36a^4c^5g^4h^4z + 9b^3c^6d^4h^4z - 36a^3c^6eg^4z + 36a^2c^7e^4gz - 9b^2c^7d^4ez$   
 $- 36a^7b^3c^5m^2z + 36a^8d^4ez + 9a^6b^3m^5z + 36a^5c^4j^5z + 9a^4b^3c^2gh^2jk^2l^2m - 9a^3b^4c^2eg^2j^2k^2l^2m$   
 $- 9a^3b^4c^2d^2h^2jk^2l^2m - 9a^3b^4c^2efg^2h^2k^2l^2m + 36a^4b^3c^3d^2eg^2jk^2l^2m + 9a^2b^5c^4d^2efg^2jk^2l^2m$   
 $+ 36a^4b^3c^3efgh^2jk^2l^2m + 36a^4b^3c^3efgh^2jk^2l^2m + 9a^2b^5c^2d^2efg^2jk^2l^2m + 9a^2b^5c^2d^2efg^2jk^2l^2m$   
 $+ 36a^3b^3c^4d^2efgh^2jk^2l^2m + 36a^3b^3c^4d^2efgh^2jk^2l^2m + 36a^3b^3c^4d^2efgh^2jk^2l^2m + 9a^2b^5c^2d^2efgh^2jk^2l^2m$   
 $+ 9a^2b^5c^2d^2efgh^2jk^2l^2m - 9a^2b^4c^3d^2efgh^2jk^2l^2m - 9a^2b^4c^3d^2efgh^2jk^2l^2m - 9a^2b^4c^3d^2efgh^2jk^2l^2m$   
 $- 9a^2b^4c^3d^2efgh^2jk^2l^2m + 9a^2b^4c^3d^2efgh^2jk^2l^2m + 9a^2b^4c^3d^2efgh^2jk^2l^2m + 9a^2b^4c^3d^2efgh^2jk^2l^2m$   
 $- 9a^2b^4c^3d^2efgh^2jk^2l^2m + 18a^4b^2c^2eg^2jk^2l^2m + 18a^4b^2c^2d^2h^2jk^2l^2m + 18a^4b^2c^2d^2h^2jk^2l^2m$   
 $- 36a^3b^3c^2d^2efgh^2jk^2l^2m - 36a^3b^3c^2d^2efgh^2jk^2l^2m - 36a^3b^3c^2d^2efgh^2jk^2l^2m + 9a^3b^3c^2d^2efgh^2jk^2l^2m$   
 $+ 9a^3b^3c^2d^2efgh^2jk^2l^2m + 9a^3b^3c^2d^2efgh^2jk^2l^2m - 108a^3b^2c^3d^2efgh^2jk^2l^2m + 54a^2b^4c^2d^2efgh^2jk^2l^2m$   
 $- 36a^3b^2c^3d^2efgh^2jk^2l^2m + 18a^3b^2c^3d^2efgh^2jk^2l^2m + 18a^3b^2c^3d^2efgh^2jk^2l^2m + 18a^3b^2c^3d^2efgh^2jk^2l^2m$   
 $+ 18a^3b^2c^3d^2efgh^2jk^2l^2m - 9a^2b^4c^2d^2efgh^2jk^2l^2m - 9a^2b^4c^2d^2efgh^2jk^2l^2m + 18a^3b^2c^3d^2efgh^2jk^2l^2m$   
 $+ 18a^3b^2c^3d^2efgh^2jk^2l^2m - 9a^2b^4c^2d^2efgh^2jk^2l^2m - 9a^2b^4c^2d^2efgh^2jk^2l^2m + 18a^3b^2c^3d^2efgh^2jk^2l^2m$   
 $+ 18a^3b^2c^3d^2efgh^2jk^2l^2m - 9a^2b^4c^2d^2efgh^2jk^2l^2m - 36a^2b^3c^3d^2efgh^2jk^2l^2m + 9a^2b^3c^3d^2efgh^2jk^2l^2m$   
 $+ 9a^2b^3c^3d^2efgh^2jk^2l^2m + 18a^2b^2c^4d^2efgh^2jk^2l^2m + 18a^2b^2c^4d^2efgh^2jk^2l^2m - 9a^5b^2c^2h^2jk^2l^2m$   
 $- 9a^5b^2c^2g^2jk^2l^2m + 27a^5b^2c^2f^2jk^2l^2m - 9a^4b^3c^2f^2jk^2l^2m + 9a^4b^3c^2f^2jk^2l^2m - 18a^5b^3c^2efgh^2jk^2l^2m$   
 $- 9a^5b^3c^2efgh^2jk^2l^2m + 9a^4b^3c^2efgh^2jk^2l^2m - 18a^5b^3c^2efgh^2jk^2l^2m - 18a^5b^3c^2efgh^2jk^2l^2m$   
 $- 54a^5b^3c^2efgh^2jk^2l^2m - 18a^5b^3c^2efgh^2jk^2l^2m - 18a^5b^3c^2efgh^2jk^2l^2m + 18a^4b^3c^2efgh^2jk^2l^2m$   
 $- 9a^4b^3c^2efgh^2jk^2l^2m - 9a^4b^3c^2efgh^2jk^2l^2m - 9a^4b^3c^2efgh^2jk^2l^2m + 18a^4b^3c^2efgh^2jk^2l^2m$   
 $+ 9a^4b^3c^2efgh^2jk^2l^2m + 9a^4b^3c^2efgh^2jk^2l^2m + 9a^4b^3c^2efgh^2jk^2l^2m + 18a^4b^3c^2efgh^2jk^2l^2m$   
 $- 18a^4b^3c^2efgh^2jk^2l^2m - 9a^4b^3c^2efgh^2jk^2l^2m + 18a^4b^3c^2efgh^2jk^2l^2m - 9a^4b^3c^2efgh^2jk^2l^2m$

$$\begin{aligned}
& a^3b^4c^2efk^2lm - 9a^2b^5c^2d^2g^2k^2lm - 18a^4b^3c^3f^2g^2h^2lm \\
& - 18a^4b^3c^3d^2h^2j^2k^2lm - 9a^3b^4c^2d^2f^2k^2lm - 54a^4b^3c^3d^2g^2j^2 \\
& *k^2lm - 18a^4b^3c^3f^2g^2h^2k^2lm - 18a^4b^3c^3e^2g^2j^2k^2lm - 18a^4b^3c^3d \\
& *h^2j^2k^2lm - 18a^3b^4c^2d^2g^2j^2k^2lm^2 + 9a^3b^4c^2e^2f^2j^2k^2lm^2 + 9a^3b^4 \\
& *c^2d^2f^2j^2lm^2 - 9a^3b^4c^2d^2e^2k^2lm^2 - 54a^3b^4c^2d^2f^2j^2k^2lm + 36a^4 \\
& *b^3c^3d^2g^2j^2k^2lm - 36a^3b^4c^2d^2g^2j^2k^2lm - 18a^4b^3c^3e^2f^2j^2k^2lm + \\
& 18a^4b^3c^3d^2f^2j^2k^2lm - 18a^3b^4c^2d^2e^2j^2lm + 9a^3b^4c^2f^2g^2h^2j^2 \\
& m^2 - 9a^2b^5c^2d^2g^2j^2k^2lm + 36a^4b^3c^3d^2g^2h^2k^2lm - 36a^3b^4c^2d^2 \\
& *g^2h^2k^2lm + 18a^4b^3c^3e^2g^2h^2k^2lm - 18a^4b^3c^3e^2f^2h^2k^2lm - 18a^4b^3c \\
& ^3d^2f^2j^2k^2lm^2 - 18a^3b^4c^2d^2f^2h^2lm - 18a^3b^4c^2d^2e^2j^2k^2lm - 9a^2 \\
& b^5c^2d^2g^2h^2k^2lm - 54a^4b^3c^3d^2g^2h^2k^2lm^2 - 54a^3b^4c^2e^2f^2h^2j^2lm - \\
& 18a^4b^3c^3d^2f^2g^2lm^2 - 18a^3b^4c^2e^2f^2g^2k^2lm - 54a^4b^3c^3d^2f^2g^2k^2 \\
& m^2 - 36a^4b^3c^3e^2f^2g^2j^2m^2 - 36a^4b^3c^3d^2f^2h^2j^2m^2 + 36a^3b^4c^2e \\
& *f^2g^2j^2m + 36a^3b^4c^2d^2f^2h^2j^2m - 18a^4b^3c^3d^2e^2h^2k^2m^2 - 18a^4b \\
& *c^3d^2e^2g^2lm^2 + 18a^3b^4c^2e^2f^2h^2j^2lm - 18a^3b^4c^2e^2f^2g^2k^2lm - 18 \\
& *a^3b^4c^2d^2f^2h^2k^2lm + 18a^3b^4c^2d^2f^2g^2k^2lm - 9a^2b^5c^2e^2f^2g^2j^2m^2 \\
& - 9a^2b^5c^2d^2f^2h^2j^2m^2 - 54a^3b^4c^2d^2f^2g^2j^2m - 18a^3b^4c^2e^2f^2g^2 \\
& 2^2j^2lm - 18a^2b^4c^3d^2f^2g^2j^2m + 9a^2b^4c^3d^2g^2h^2j^2k^2lm + 9a^2b^4c^3d^2 \\
& 2^2f^2g^2k^2lm + 9a^2b^4c^3d^2e^2g^2k^2lm - 9a^2b^4c^3d^2e^2f^2lm - 18a^3b^4c^2 \\
& 4^2e^2f^2g^2h^2lm - 18a^3b^4c^2d^2f^2h^2j^2k^2lm - 9a^2b^4c^3d^2e^2f^2k^2lm + 18a^3 \\
& *b^4c^2d^2f^2g^2j^2k^2lm - 18a^3b^4c^2d^2f^2g^2h^2lm - 18a^3b^4c^2d^2e^2h^2j^2k^2lm - \\
& 18a^3b^4c^2d^2e^2g^2j^2k^2lm + 18a^2b^4c^3d^2e^2f^2j^2m - 9a^2b^5c^2d^2e^2f^2j^2 \\
& m - 9a^2b^4c^3d^2e^2f^2k^2lm - 18a^2b^4c^3d^2e^2f^2j^2lm - 9a^2b^3c^4d^2e^2 \\
& *g^2j^2k^2lm + 9a^2b^3c^4d^2e^2f^2j^2lm - 54a^2b^4c^3d^2e^2g^2h^2lm - 18a^2b^4c^3 \\
& d^2e^2f^2h^2lm - 18a^2b^4c^3d^2e^2f^2j^2k^2lm + 18a^2b^3c^4d^2e^2g^2h^2lm - 9a^2b^3 \\
& *c^4d^2e^2f^2g^2h^2k^2lm + 9a^2b^3c^4d^2e^2f^2h^2lm + 9a^2b^3c^4d^2e^2f^2j^2k^2lm - 36a \\
& ^3b^4c^2d^2e^2f^2h^2lm^2 + 36a^2b^4c^3d^2e^2f^2h^2lm + 18a^2b^4c^3d^2e^2g^2h^2k^2 \\
& - 18a^2b^4c^3d^2e^2f^2g^2lm - 18a^2b^3c^4d^2e^2f^2h^2lm - 9a^2b^5c^2d^2e^2f^2h^2 \\
& *lm^2 + 9a^2b^4c^3d^2e^2f^2h^2lm + 9a^2b^3c^4d^2e^2f^2g^2lm - 18a^2b^4c^3d^2e^2 \\
& *f^2h^2k^2lm - 18a^2b^4c^3d^2e^2f^2g^2lm + 9a^2b^3c^4d^2e^2f^2h^2k^2lm + 9a^2b^3c^4 \\
& *d^2e^2f^2g^2lm + 27a^2b^2c^5d^2e^2f^2g^2k^2lm + 9a^2b^4c^3d^2e^2f^2g^2k^2lm - 9a^2b^3 \\
& *c^4d^2e^2f^2g^2k^2lm - 9a^2b^2c^5d^2e^2f^2h^2j^2lm - 9a^2b^2c^5d^2e^2f^2g^2j^2lm - 9a^2 \\
& b^2c^5d^2e^2f^2g^2h^2lm + 72a^4c^4d^2f^2g^2j^2k^2lm + 72a^4c^4d^2e^2f^2k^2lm + 9a^2 \\
& *b^6c^2d^2g^2k^2lm + 9a^2b^6c^2d^2e^2f^2j^2m^2 - 27a^4b^2c^2f^2j^2k^2lm - 9 \\
& *a^4b^2c^2g^2h^2j^2lm + 36a^3b^3c^2e^2h^2k^2lm - 18a^4b^2c^2e^2h^2 \\
& 2^2k^2lm - 9a^4b^2c^2g^2h^2j^2k^2lm + 18a^4b^2c^2f^2h^2j^2k^2lm + 18a^4b^2 \\
& ^2c^2f^2g^2j^2k^2lm - 18a^4b^2c^2e^2h^2j^2k^2lm - 9a^4b^2c^2g^2h^2j^2k^2lm \\
& - 9a^3b^3c^2f^2h^2j^2k^2lm - 9a^3b^3c^2f^2g^2j^2lm - 63a^4b^2c^2d^2 \\
& *g^2k^2lm + 63a^3b^2c^3d^2g^2k^2lm - 45a^2b^4c^2d^2g^2k^2lm + 36a^4 \\
& *b^2c^2e^2f^2k^2lm + 27a^3b^3c^2d^2g^2k^2lm - 9a^4b^2c^2f^2h^2j^2k^2 \\
& ^2lm - 9a^4b^2c^2e^2h^2j^2k^2lm + 9a^3b^3c^2e^2g^2j^2lm - 9a^3b^2c^3 \\
& d^2h^2j^2lm + 36a^4b^2c^2d^2f^2k^2lm + 27a^4b^2c^2e^2h^2j^2k^2lm - 2 \\
& 7a^3b^2c^3e^2h^2j^2k^2lm - 18a^3b^2c^3e^2f^2j^2lm - 9a^4b^2c^2f^2g^2 \\
& j^2k^2lm - 9a^4b^2c^2d^2g^2j^2lm + 9a^3b^3c^2f^2g^2h^2lm - 9a^3b^3 \\
& *c^2e^2h^2j^2k^2lm + 9a^3b^3c^2d^2h^2j^2k^2lm - 9a^3b^2c^3e^2g^2j^2k^2lm + \\
& 9a^2b^4c^2e^2h^2j^2k^2lm + 72a^4b^2c^2d^2g^2j^2k^2lm^2 + 36a^4b^2c^2d^2e \\
& *k^2lm^2 + 27a^4b^2c^2e^2g^2h^2lm^2 - 27a^4b^2c^2e^2f^2j^2k^2lm^2 - 27a^4 \\
& *b^2c^2d^2f^2j^2lm^2 - 27a^3b^2c^3e^2g^2h^2lm + 27a^3b^2c^3e^2f^2j^2 \\
& k^2lm + 27a^3b^2c^3d^2f^2j^2lm + 18a^3b^3c^2d^2g^2j^2k^2lm + 9a^3b^3c^2 \\
& 2^2f^2g^2h^2k^2lm + 9a^3b^3c^2e^2g^2j^2k^2lm - 9a^3b^3c^2e^2g^2h^2lm - 9 \\
& *a^3b^3c^2e^2f^2j^2k^2lm + 9a^3b^3c^2d^2h^2j^2k^2lm - 9a^3b^3c^2d^2f^2j^2 \\
& *lm + 9a^2b^4c^2e^2g^2h^2lm + 36a^2b^3c^3d^2g^2j^2k^2lm - 27a^4b^2c^2 \\
& c^2f^2g^2h^2j^2m^2 + 27a^3b^2c^3f^2g^2h^2j^2m - 18a^4b^2c^2e^2f^2h^2lm^2 - \\
& 18a^3b^3c^2d^2g^2j^2k^2lm - 18a^3b^2c^3d^2g^2j^2k^2lm + 18a^2b^3c^3d^2 \\
& 2^2f^2j^2k^2lm - 9a^4b^2c^2e^2g^2h^2k^2lm^2 - 9a^4b^2c^2d^2g^2h^2lm^2 - 9a^3 \\
& b^3c^2f^2g^2h^2j^2m + 9a^3b^3c^2e^2f^2j^2k^2lm - 9a^3b^2c^3f^2g^2h^2k^2lm \\
& + 9a^2b^4c^2d^2g^2j^2k^2lm + 9a^2b^3c^3d^2e^2j^2lm + 36a^3b^2c^3e \\
& *f^2g^2lm + 36a^2b^3c^3d^2g^2h^2k^2lm - 18a^3b^3c^2d^2g^2h^2k^2lm - 18a^3 \\
& *b^2c^3d^2g^2h^2k^2lm + 9a^3b^3c^2e^2f^2h^2k^2lm + 9a^3b^3c^2d^2f^2j^2k^2
\end{aligned}$$



$$\begin{aligned}
& 1^2 - 9a^3b^2c^3f^2g^2h^2j^2k^2l^2 - 9a^3b^2c^3efg^2h^2j^2k^2l^2 - 9a^2b^4c^2 \\
& *efg^2h^2j^2k^2l^2 + 9a^2b^4c^2d^2g^2h^2k^2l^2 + 9a^2b^3c^3d^2f^2h^2k^2l^2 + 9a^2 \\
& b^3c^3d^2e^2j^2k^2l^2 + 36a^3b^2c^3d^2f^2h^2k^2l^2 + 36a^3b^2c^3d^2e^2j^2 \\
& k^2l^2 + 18a^3b^3c^2d^2g^2h^2k^2l^2 + 18a^3b^2c^3efg^2h^2j^2k^2l^2 + 18a^3b^2 \\
& c^3efg^2h^2k^2l^2 - 18a^3b^2c^3efg^2h^2j^2k^2l^2 - 18a^3b^2c^3d^2g^2h^2k^2l^2 \\
& + 18a^3b^2c^3d^2e^2h^2k^2l^2 + 18a^2b^3c^3e^2f^2h^2j^2k^2l^2 - 9a^3b^3c^2e \\
& *g^2h^2j^2k^2l^2 - 9a^3b^3c^2efg^2h^2k^2l^2 + 9a^3b^3c^2d^2f^2g^2l^2k^2 - 9a^3b \\
& b^3c^2d^2e^2h^2k^2l^2 - 9a^3b^2c^3f^2g^2h^2j^2k^2l^2 - 9a^3b^2c^3d^2g^2h^2j^2k^2l^2 \\
& - 9a^2b^4c^2d^2f^2h^2k^2l^2 - 9a^2b^4c^2d^2e^2j^2k^2l^2 - 9a^2b^3c^3e^2 \\
& *g^2h^2j^2k^2l^2 - 9a^2b^3c^3e^2f^2h^2k^2l^2 + 9a^2b^3c^3e^2f^2g^2k^2l^2 - 9a^2b \\
& ^3c^3d^2e^2h^2k^2l^2 + 36a^3b^3c^2efg^2j^2k^2l^2 + 36a^3b^3c^2d^2f^2h^2j^2k^2l^2 \\
& + 18a^3b^3c^2d^2f^2g^2k^2l^2 - 18a^3b^2c^3efg^2j^2k^2l^2 - 18a^3b^2c^3 \\
& d^2f^2h^2j^2k^2l^2 - 18a^2b^3c^3efg^2j^2k^2l^2 - 18a^2b^3c^3d^2f^2h^2j^2k^2l^2 + 9 \\
& a^3b^3c^2d^2e^2h^2k^2l^2 + 9a^3b^3c^2d^2e^2g^2l^2k^2 - 9a^3b^2c^3efg^2h^2 \\
& j^2k^2l^2 - 9a^3b^2c^3d^2g^2h^2j^2k^2l^2 + 9a^2b^4c^2efg^2j^2k^2l^2 + 9a^2b^4c \\
& ^2d^2f^2h^2j^2k^2l^2 + 9a^2b^3c^3efg^2j^2k^2l^2 + 9a^2b^3c^3d^2f^2h^2k^2l^2 + 72 \\
& a^2b^2c^4d^2f^2g^2j^2k^2l^2 + 36a^2b^2c^4d^2e^2f^2k^2l^2 + 27a^3b^2c^3d^2g^2 \\
& h^2j^2k^2l^2 + 27a^3b^2c^3d^2f^2g^2k^2l^2 + 27a^3b^2c^3d^2e^2g^2k^2l^2 - 27a^2b \\
& b^2c^4d^2g^2h^2j^2k^2l^2 - 27a^2b^2c^4d^2f^2g^2k^2l^2 - 27a^2b^2c^4d^2e^2g^2k^2 \\
& l^2 + 18a^2b^3c^3d^2f^2g^2j^2k^2l^2 - 18a^2b^2c^4d^2e^2h^2k^2l^2 - 9a^3b^2c^3 \\
& e^2f^2h^2j^2k^2l^2 + 9a^2b^3c^3efg^2j^2k^2l^2 - 9a^2b^3c^3d^2g^2h^2j^2k^2l^2 - 9a \\
& ^2b^3c^3d^2f^2g^2k^2l^2 - 9a^2b^3c^3d^2e^2g^2k^2l^2 - 9a^2b^2c^4d^2f^2h^2j^2 \\
& k^2l^2 - 9a^2b^2c^4d^2e^2h^2j^2k^2l^2 + 36a^2b^2c^4d^2e^2f^2k^2l^2 - 27a^3b^2c \\
& ^3d^2e^2h^2j^2k^2l^2 + 27a^2b^2c^4d^2e^2h^2j^2k^2l^2 - 18a^3b^2c^3d^2e^2g^2k^2l^2 - \\
& 9a^3b^2c^3d^2f^2g^2j^2k^2l^2 + 9a^2b^4c^2d^2e^2h^2j^2k^2l^2 + 9a^2b^3c^3efg^2 \\
& ^2h^2k^2l^2 + 9a^2b^3c^3d^2f^2h^2j^2k^2l^2 - 9a^2b^3c^3d^2e^2h^2j^2k^2l^2 - 9a^2b^2 \\
& c^4e^2f^2g^2j^2k^2l^2 - 9a^2b^2c^4d^2e^2g^2j^2k^2l^2 + 63a^3b^2c^3d^2e^2f^2j^2k^2l^2 - \\
& 63a^2b^2c^4d^2e^2f^2j^2k^2l^2 - 45a^2b^4c^2d^2e^2f^2j^2k^2l^2 + 36a^2b^2c^4d^2 \\
& e^2f^2k^2l^2 - 27a^3b^2c^3efg^2h^2k^2l^2 + 27a^2b^3c^3d^2e^2f^2j^2k^2l^2 + 27a^2 \\
& b^2c^4e^2f^2g^2h^2k^2l^2 + 9a^2b^4c^2efg^2h^2k^2l^2 - 9a^2b^3c^3efg^2h^2 \\
& k^2l^2 + 9a^2b^3c^3d^2f^2g^2h^2k^2l^2 + 9a^2b^3c^3d^2e^2h^2j^2k^2l^2 + 9a^2b^3c^3 \\
& d^2e^2g^2j^2k^2l^2 + 18a^2b^2c^4d^2e^2g^2j^2k^2l^2 - 9a^3b^2c^3d^2e^2g^2h^2k^2l^2 - 9a^2 \\
& b^3c^3d^2e^2g^2j^2k^2l^2 - 9a^2b^2c^4e^2f^2g^2h^2k^2l^2 - 9a^2b^2c^4d^2f^2g^2h^2 \\
& k^2l^2 + 18a^2b^2c^4d^2f^2g^2h^2k^2l^2 - 18a^2b^2c^4d^2e^2g^2h^2k^2l^2 - 9a^2b^3c^3 \\
& d^2f^2g^2h^2k^2l^2 - 9a^2b^2c^4e^2f^2g^2h^2j^2k^2l^2 + 36a^2b^3c^3d^2e^2f^2h^2k^2l^2 - 18 \\
& a^2b^2c^4d^2e^2f^2h^2k^2l^2 - 9a^2b^2c^4d^2f^2g^2h^2j^2k^2l^2 - 9a^2b^2c^4d^2e^2g^2 \\
& h^2j^2k^2l^2 - 27a^2b^2c^4d^2e^2f^2g^2k^2l^2 + 18a^2b^2c^4d^2f^2h^2k^2l^2 - 9a^2b^3 \\
& c^3e^2f^2g^2k^2l^2 - 9a^2b^2c^4e^2f^2h^2j^2k^2l^2 - 9a^2b^2c^4d^2f^2h^2k^2l^2 + \\
& 45a^2b^3c^3d^2e^2f^2k^2l^2 + 36a^2b^2c^4d^2e^2g^2k^2l^2 + 9a^2b^3c^3d^2e^2 \\
& g^2k^2l^2 + 9a^2b^2c^4e^2f^2g^2j^2k^2l^2 + 9a^2b^2c^4d^2f^2h^2j^2k^2l^2 - 9a^2b^2 \\
& c^4d^2e^2h^2k^2l^2 - 36a^2b^2c^4d^2e^2f^2k^2l^2 - 9a^2b^2c^4d^2f^2g^2j^2k^2l^2 \\
& - 12a^6b^3c^2h^2k^2l^3m + 3a^5b^6c^2e^3k^2l^3m + 3a^4b^6c^2d^2e^2f^3k^2l^3m - 12a^6 \\
& b^3c^2d^2e^3f^2h^2 + 9a^5b^2c^2h^2k^2l^2m + 18a^5b^3c^2g^2k^2l^2m - 9a^5 \\
& b^2c^2h^2j^2k^2l^2m + 9a^5b^3c^2h^2j^2k^2l^2m - 9a^4b^3c^2g^2k^2l^2m - 3a^4 \\
& b^2c^2g^2k^2l^2m + 18a^5b^3c^2f^2k^2l^2m + 15a^3b^3c^2f^3k^2l^2m \\
& + 9a^5b^2c^2h^2j^2k^2l^2m + 9a^5b^2c^2g^2j^2k^2l^2m - 9a^5b^2c^2f^2k^2l^2 \\
& m + 9a^5b^3c^2h^2j^2k^2l^2m + 9a^5b^3c^2g^2j^2k^2l^2m - 9a^4b^3c^2f^2k^2 \\
& l^2m + 36a^3b^2c^3e^3k^2l^2m - 27a^5b^3c^2g^2j^2k^2l^2m - 18a^5b^3c^2 \\
& h^2j^2k^2l^2m - 18a^2b^4c^2e^3k^2l^2m - 9a^5b^2c^2g^2j^2k^2l^2m - 9a^5b^2 \\
& c^2e^3k^2l^2m + 9a^5b^3c^2h^2j^2k^2l^2m + 9a^5b^3c^2g^2j^2k^2l^2m + 9a^5 \\
& b^3c^2g^2j^2k^2l^2m + 9a^3b^4c^2e^2k^2l^2m + 3a^4b^2c^2h^3j^2k^2l^2m - 5 \\
& 4a^4b^3c^3d^2k^2l^2m - 51a^2b^3c^3d^3k^2l^2m - 27a^4b^3c^3e^2j^2k^2l^2m \\
& - 18a^5b^3c^2g^2h^2k^2l^2m - 9a^5b^2c^2e^2j^2k^2l^2m - 9a^5b^2c^2d^2k^2l^2 \\
& m + 9a^5b^3c^2g^2h^2k^2l^2m + 9a^5b^3c^2g^2j^2k^2l^2m + 9a^5b^3c^2e^2 \\
& j^2k^2l^2m - 9a^3b^4c^2e^2j^2k^2l^2m - 9a^2b^5c^2d^2k^2l^2m + 3a^4b^2c^2 \\
& g^2h^3k^2l^2m - 3a^3b^3c^2g^3j^2k^2l^2m + 18a^5b^3c^2e^2j^2k^2l^2m + 18a^5 \\
& b^3c^2d^2j^2k^2l^2m + 18a^4b^3c^3f^2j^2k^2l^2m + 9a^5b^3c^2g^2h^2k^2l^2m + 9 \\
& a^5b^3c^2f^2h^2k^2l^2m + 9a^5b^3c^2f^2j^2k^2l^2m - 9a^4b^3c^2e^2j^2k^2l^2m - \\
& 9a^4b^3c^2d^2j^2k^2l^2m + 9a^4b^2c^2f^2j^3k^2l^2m + 9a^4b^2c^2e^2j^3k^2l^2m
\end{aligned}$$

$$\begin{aligned}
& m + 9a^4b^2c^2d^2j^3l^3m + 9a^4b^2c^3f^2h^2l^3m + 9a^4b^2c^3e^2j^2k^2m + 9a^4b^2c^3d^2j^2l^2m - 3a^3b^3c^2g^3h^2k^2m - 3a^3b^2c^3f^3j^2k^2m + 3a^2b^4c^2f^3j^2k^2m + 45a^4b^2c^3d^2j^2k^2m^2 - 27a^5b^2c^2d^2j^2k^2m^2 + 18a^5b^2c^2g^2h^2j^2m^2 + 18a^4b^2c^3e^2j^2k^2m^2 + 15a^2b^3c^3e^3j^2k^2m - 12a^3b^2c^3f^3h^2k^2m - 12a^3b^2c^3f^3g^2l^2m + 9a^5b^2c^2g^2h^2k^2l^2 - 9a^4b^3c^3g^2h^2j^2m^2 + 9a^4b^3c^3d^2j^2k^2m^2 + 9a^4b^2c^2g^2h^2j^3m + 9a^4b^2c^3g^2h^2k^2l^2 + 9a^4b^2c^3g^2h^2j^2m + 9a^2b^5c^2d^2j^2k^2m^2 + 3a^2b^4c^2f^3h^2k^2m + 3a^2b^4c^2f^3g^2l^2m + 36a^2b^2c^4d^3j^2k^2m + 18a^4b^2c^3e^2g^2l^2m + 15a^2b^3c^3e^3g^2l^2m + 12a^4b^2c^2d^2j^2k^3l + 9a^5b^2c^2f^2g^2k^2m^2 + 9a^5b^2c^2e^2h^2k^2m^2 + 9a^4b^2c^3g^2h^2j^2l + 9a^4b^2c^3f^2h^2k^2l + 9a^4b^2c^3f^2g^2k^2m + 9a^4b^2c^3d^2h^2l^2m - 9a^3b^3c^2e^2h^3k^2m + 6a^2b^3c^3e^3h^2k^2m + 45a^4b^2c^3e^2h^2j^2m^2 + 36a^2b^2c^4d^3h^2k^2m - 33a^3b^2c^3d^2g^3l^2m - 27a^4b^2c^3f^2h^2j^2l^2 - 27a^4b^2c^3e^2f^2l^2m^2 - 27a^4b^2c^3e^2h^2j^2m - 18a^4b^2c^3g^2h^2j^2k^2 - 18a^4b^2c^3f^2g^2k^2l - 18a^4b^2c^3e^2g^2k^2m - 18a^3b^2c^4d^2g^2l^2m + 12a^4b^2c^2d^2h^2k^3m + 9a^5b^2c^2e^2f^2l^2m^2 + 9a^5b^2c^2d^2g^2l^2m^2 + 9a^4b^2c^3f^2g^2k^2l^2 + 9a^4b^2c^3e^2g^2k^2m^2 + 9a^4b^2c^3g^2h^2j^2k^2 + 9a^4b^2c^3f^2h^2j^2l^2 + 9a^4b^2c^3e^2f^2l^2m - 9a^3b^4c^2e^2h^2j^2m^2 + 9a^3b^2c^4e^2f^2l^2m + 9a^2b^5c^2e^2h^2j^2m^2 + 9a^2b^4c^2d^2g^3l^2m - 9a^2b^2c^4d^3g^2l^2m - 9a^2b^5c^2d^2g^2l^2m - 6a^4b^2c^2e^2h^2k^3l - 6a^3b^2c^3f^2g^3j^2m + 3a^4b^2c^2g^2h^2j^2k^3 + 3a^4b^2c^2f^2g^2k^3l + 3a^4b^2c^2e^2g^2k^3m + 3a^3b^2c^3g^3h^2j^2k + 3a^3b^2c^3f^2g^3k^2l + 3a^3b^2c^3e^2g^3k^2m - 27a^3b^2c^4d^2h^2k^2l + 18a^4b^2c^3e^2f^2k^2m^2 + 18a^4b^2c^3d^2f^2l^2m^2 + 9a^4b^2c^3f^2h^2j^2k^2 + 9a^4b^2c^3f^2g^2j^2l^2 + 9a^4b^2c^3e^2g^2k^2l^2 + 9a^4b^2c^3d^2h^2k^2l^2 + 9a^3b^4c^2e^2g^2j^2m^2 + 9a^3b^4c^2d^2h^2j^2m^2 - 9a^3b^3c^2e^2g^2j^3m - 9a^3b^3c^2d^2h^2j^3m + 9a^3b^2c^4e^2g^2k^2l + 9a^3b^2c^4e^2g^2j^2m + 9a^3b^2c^4d^2h^2j^2m - 3a^2b^3c^3f^3h^2j^2k - 3a^2b^3c^3f^3g^2j^2l - 3a^2b^3c^3e^2f^3k^2m - 3a^2b^3c^3d^2f^3l^2m + 45a^4b^2c^3d^2g^2j^2m^2 + 45a^3b^2c^4d^2g^2j^2m + 24a^4b^2c^2d^2g^2k^2l^3 + 24a^2b^2c^4e^3f^2j^2m + 18a^4b^2c^3f^2g^2h^2m^2 + 18a^4b^2c^3d^2h^2j^2l^2 + 18a^3b^2c^4e^2h^2j^2k - 12a^4b^2c^2e^2g^2j^2l^3 - 12a^4b^2c^2e^2f^2k^2l^3 - 12a^4b^2c^2d^2e^2l^3m - 12a^2b^2c^4e^3g^2j^2l - 12a^2b^2c^4e^3f^2k^2l - 12a^2b^2c^4d^2e^3l^2m + 9a^4b^2c^3f^2g^2j^2k^2 + 9a^4b^2c^3e^2h^2j^2k^2 + 9a^3b^2c^3e^2h^3j^2k + 9a^3b^2c^3d^2h^3j^2l + 9a^3b^2c^4f^2g^2j^2k + 9a^3b^2c^4d^2h^2j^2l + 9a^2b^5c^2d^2g^2j^2m^2 + 9a^2b^5c^2d^2e^2g^2j^2m - 3a^4b^2c^2d^2h^2j^2l^3 - 3a^2b^3c^3f^3g^2h^2m - 3a^2b^2c^4e^3h^2j^2k + 18a^4b^2c^3f^2g^2h^2l^2 + 18a^3b^2c^4e^2g^2h^2m + 18a^3b^2c^4d^2h^2j^2k^2 + 18a^3b^2c^4d^2f^2k^2l + 18a^3b^2c^4d^2e^2k^2m + 9a^4b^2c^3e^2g^2h^2m^2 + 9a^4b^2c^3e^2f^2j^2l^2 + 9a^4b^2c^3d^2g^2j^2l^2 + 9a^3b^2c^3f^2g^2h^3l + 9a^3b^2c^3e^2g^2h^3m + 9a^3b^2c^4f^2g^2h^2l + 9a^3b^2c^4e^2g^2j^2k + 9a^3b^2c^4e^2f^2j^2l - 9a^2b^3c^3d^2g^3j^2l + 9a^2b^4c^3d^2g^2j^2l - 3a^4b^2c^2f^2g^2h^2l^3 - 3a^3b^3c^2e^2g^2j^2k^3 - 3a^3b^3c^2d^2h^2j^2k^3 - 3a^3b^3c^2d^2f^2k^3l - 3a^3b^3c^2d^2e^2k^3m - 3a^2b^2c^4e^3g^2h^2m - 33a^3b^2c^3d^2e^2j^3m - 27a^4b^2c^3e^2f^2h^2m^2 - 27a^3b^2c^4d^2e^2k^2l^2 - 18a^4b^2c^3d^2e^2j^2m^2 - 18a^3b^2c^4e^2f^2j^2k - 18a^3b^2c^4d^2f^2j^2l - 9a^4b^2c^2d^2e^2j^2m^3 + 9a^4b^2c^3d^2g^2h^2m^2 + 9a^4b^2c^3d^2e^2k^2l^2 + 9a^3b^2c^4f^2g^2h^2k + 9a^3b^2c^4e^2f^2j^2k^2 + 9a^3b^2c^4d^2f^2j^2l^2 + 9a^3b^2c^4e^2f^2h^2m + 9a^3b^2c^4d^2e^2k^2l - 9a^2b^5c^2d^2e^2j^2m^2 + 9a^2b^4c^2d^2e^2j^3m - 9a^2b^3c^3d^2g^3h^2m + 9a^2b^3c^5d^2e^2k^2l + 9a^2b^3c^5d^2e^2j^3m + 9a^2b^4c^3d^2g^2h^2m - 6a^3b^2c^3d^2g^2j^3k - 3a^3b^3c^2f^2g^2h^2k^3 + 3a^3b^2c^3e^2f^2j^3k + 3a^3b^2c^3d^2f^2j^3l + 3a^2b^2c^4e^2f^3j^2k + 3a^2b^2c^4d^2f^3j^2l + 45a^3b^2c^4d^2g^2h^2l^2 + 36a^4b^2c^2e^2f^2g^2m^3 + 36a^4b^2c^2d^2f^2h^2m^3 - 27a^3b^2c^4e^2g^2h^2k^2 - 27a^3b^2c^4d^2g^2h^2l^2 - 18a^3b^2c^4f^2g^2h^2j^2 + 18a^3b^2c^4d^2e^2j^2l^2 + 15a^3b^3c^2d^2e^2j^2l^3 + 12a^2b^2c^4e^2f^3g^2m + 12a^2b^2c^4d^2f^3h^2m + 9a^3b^2c^4f^2g^2h^2j^2 + 9a^3b^2c^4e^2g^2h^2
\end{aligned}$$

$$\begin{aligned}
& 2*k + 9*a^3*b*c^4*d*f^2*j*k^2 + 9*a^2*b*c^5*d^2*f^2*j*k + 9*a*b^5*c^2*d^2*g \\
& *h^1^2 - 9*a*b^4*c^3*d^2*g*h^2*1 - 6*a^2*b^2*c^4*e*f^3*h*1 + 3*a^3*b^2*c^3* \\
& f*g*h*j^3 + 3*a^2*b^2*c^4*f^3*g*h*j + 45*a^3*b*c^4*d^2*f*g*m^2 - 27*a^2*b*c \\
& ^5*d^2*f^2*g*m + 18*a^3*b*c^4*e^2*f*g*1^2 + 15*a^3*b^3*c^2*e*f*g*1^3 - 12*a \\
& ^3*b^2*c^3*d*e*j*k^3 + 9*a^3*b*c^4*d^2*e*h*m^2 + 9*a^3*b*c^4*e*g^2*h*j^2 + \\
& 9*a^3*b*c^4*e*f^2*h*k^2 - 9*a^2*b^3*c^3*d*f*h^3*1 + 9*a^2*b*c^5*d^2*f^2*h*1 \\
& + 9*a*b^5*c^2*d^2*f*g*m^2 + 9*a*b^3*c^4*d^2*f^2*g*m + 6*a^3*b^3*c^2*d*f*h* \\
& 1^3 + 3*a^2*b^4*c^2*d*e*j*k^3 + 18*a^3*b*c^4*e*f*g^2*k^2 + 18*a^2*b*c^5*d^2 \\
& *g^2*h*j + 18*a^2*b*c^5*d^2*f*g^2*1 + 18*a^2*b*c^5*d^2*e*g^2*m - 12*a^3*b^2 \\
& *c^3*d*f*h*k^3 + 9*a^3*b*c^4*e*f*h^2*j^2 + 9*a^3*b*c^4*d*f^2*g*1^2 + 9*a^3* \\
& b*c^4*d*e^2*g*m^2 + 9*a^3*b*c^4*d*g*h^2*j^2 + 9*a^2*b^2*c^4*e*f*g^3*k + 9*a \\
& ^2*b^2*c^4*d*g^3*h*j + 9*a^2*b^2*c^4*d*f*g^3*1 + 9*a^2*b^2*c^4*d*e*g^3*m + \\
& 9*a^2*b*c^5*e^2*f^2*h*j + 9*a^2*b*c^5*e^2*f^2*g*k - 9*a*b^3*c^4*d^2*g^2*h*j \\
& - 9*a*b^3*c^4*d^2*f*g^2*1 - 9*a*b^3*c^4*d^2*e*g^2*m - 3*a^3*b^2*c^3*e*f*g* \\
& k^3 + 3*a^2*b^4*c^2*e*f*g*k^3 + 3*a^2*b^4*c^2*d*f*h*k^3 - 54*a^3*b*c^4*d*e* \\
& f^2*m^2 - 51*a^3*b^3*c^2*d*e*f*m^3 - 27*a^3*b*c^4*d*e*g^2*1^2 + 9*a^3*b*c^4 \\
& *d*e*h^2*k^2 + 9*a^2*b*c^5*e^2*f*g^2*j + 9*a^2*b*c^5*d^2*f*h^2*j + 9*a^2*b* \\
& c^5*d^2*e*h^2*k + 9*a^2*b*c^5*d*e^2*g^2*1 - 9*a*b^5*c^2*d*e*f^2*m^2 - 9*a*b \\
& ^4*c^3*d^2*e*g*1^2 - 9*a*b^2*c^5*d^2*e^2*g*1 - 9*a*b^2*c^5*d^2*e^2*f*m - 3* \\
& a^2*b^3*c^3*e*f*g*j^3 - 3*a^2*b^3*c^3*d*f*h*j^3 + 36*a^3*b^2*c^3*d*e*f*1^3 \\
& - 27*a^2*b*c^5*d^2*f*g*j^2 - 18*a^2*b^4*c^2*d*e*f*1^3 - 18*a^2*b*c^5*d*e^2* \\
& h^2*j + 9*a^2*b*c^5*d^2*e*h*j^2 + 9*a^2*b*c^5*d*f^2*g^2*j + 9*a*b^4*c^3*d*e \\
& ^2*f*1^2 + 9*a*b^3*c^4*d^2*f*g*j^2 - 9*a*b^2*c^5*d^2*f^2*g*j - 9*a*b^2*c^5* \\
& d^2*e*f^2*1 + 3*a^2*b^2*c^4*d*e*h^3*j - 18*a^2*b*c^5*e^2*f*g*h^2 + 18*a^2*b \\
& *c^5*d^2*e*f*k^2 + 15*a^2*b^3*c^3*d*e*f*k^3 + 9*a^2*b*c^5*e*f^2*g^2*h + 9*a \\
& ^2*b*c^5*d*e^2*g*j^2 - 9*a*b^3*c^4*d^2*e*f*k^2 + 9*a*b^2*c^5*d^2*e*g^2*j - \\
& 9*a*b^2*c^5*d*e^2*f^2*k + 3*a^2*b^2*c^4*e*f*g*h^3 + 18*a^2*b*c^5*d*e*f^2*j^ \\
& 2 + 9*a^2*b*c^5*d*f^2*g*h^2 - 9*a*b^3*c^4*d*e*f^2*j^2 + 9*a*b^2*c^5*d^2*f*g \\
& ^2*h - 3*a^2*b^2*c^4*d*e*f*j^3 + 9*a^2*b*c^5*d*e*g^2*h^2 - 9*a*b^2*c^5*d^2* \\
& e*g*h^2 + 9*a*b^2*c^5*d*e^2*f*h^2 - 36*a^6*c^2*f*j*k*1*m^2 + 36*a^5*c^3*f^2 \\
& *j*k*1*m - 36*a^5*c^3*f*h^2*j*1*m + 36*a^5*c^3*e*h*j^2*1*m - 18*a^6*b*c*j^2 \\
& *k*1*m^2 + 9*a^6*b*c*j*k^2*1^2*m + 3*a^5*b^2*c*j^3*k*1*m - 36*a^5*c^3*f*g*j \\
& *k^2*m - 36*a^5*c^3*e*f*k^2*1*m + 36*a^5*c^3*d*g*k^2*1*m - 36*a^4*c^4*d^2*g \\
& *k*1*m - 36*a^5*c^3*e*h*j*k*1^2 - 36*a^5*c^3*e*f*j*1^2*m - 36*a^5*c^3*d*f*k \\
& *1^2*m + 36*a^4*c^4*e^2*h*j*k*1 + 36*a^4*c^4*e^2*f*j*1*m + 9*a^6*b*c*h*k^2* \\
& 1*m^2 - 3*a^4*b^3*c*h^3*k*1*m - 36*a^5*c^3*e*g*h*1^2*m + 36*a^5*c^3*e*f*j*k \\
& *m^2 - 36*a^5*c^3*d*g*j*k*m^2 + 36*a^5*c^3*d*f*j*1*m^2 - 36*a^5*c^3*d*e*k*1 \\
& *m^2 + 36*a^4*c^4*e^2*g*h*1*m - 36*a^4*c^4*e*f^2*j*k*m - 36*a^4*c^4*d*f^2*j \\
& *1*m + 9*a^6*b*c*h*j*1^2*m^2 + 9*a^6*b*c*g*k*1^2*m^2 + 9*a^5*b^2*c*g*k^3*1* \\
& m + 3*a^3*b^4*c*g^3*k*1*m + 36*a^5*c^3*f*g*h*j*m^2 + 36*a^5*c^3*e*f*h*1*m^2 \\
& - 36*a^4*c^4*f^2*g*h*j*m - 36*a^4*c^4*e*f^2*h*1*m - 24*a^4*b*c^3*f^3*k*1*m \\
& - 12*a^5*b*c^2*h*j^3*k*m - 12*a^5*b*c^2*g*j^3*1*m - 3*a^2*b^5*c*f^3*k*1*m \\
& - 36*a^4*c^4*e*g^2*h*k*1 - 36*a^4*c^4*e*f*g^2*1*m + 12*a^5*b^2*c*e*k*1^3*m \\
& - 6*a^5*b^2*c*f*j*1^3*m + 3*a^5*b^2*c*h*j*k*1^3 + 48*a^3*b*c^4*d^3*k*1*m + \\
& 36*a^4*c^4*e*f*h^2*j*m + 36*a^4*c^4*d*g*h^2*k*1 - 36*a^4*c^4*d*f*h^2*k*m - \\
& 36*a^4*c^4*d*e*j^2*k*1 + 24*a^5*b*c^2*d*k^3*1*m + 21*a*b^5*c^2*d^3*k*1*m - \\
& 12*a^5*b*c^2*g*j*k^3*1 - 9*a^4*b^3*c*d*k^3*1*m + 6*a^5*b*c^2*f*j*k^3*m + 3* \\
& a^5*b^2*c*g*h*1^3*m - 36*a^4*c^4*e*f*h*j^2*1 - 12*a^5*b*c^2*g*h*k^3*m - 3*a \\
& ^5*b^2*c*e*j*k*m^3 - 3*a^5*b^2*c*d*j*1*m^3 - 36*a^4*c^4*d*g*h*j*k^2 - 36*a^ \\
& 4*c^4*d*f*g*k^2*1 - 36*a^4*c^4*d*e*h*k^2*1 - 36*a^4*c^4*d*e*g*k^2*m + 36*a^ \\
& 3*c^5*d^2*g*h*j*k + 36*a^3*c^5*d^2*f*g*k*1 - 36*a^3*c^5*d^2*f*g*j*m + 36*a^ \\
& 3*c^5*d^2*e*h*k*1 + 36*a^3*c^5*d^2*e*g*k*m - 36*a^3*c^5*d^2*e*f*1*m + 24*a^ \\
& 5*b^2*c*e*h*1*m^3 - 24*a^3*b*c^4*e^3*j*k*1 - 12*a^5*b^2*c*f*h*k*m^3 - 12*a^ \\
& 5*b^2*c*f*g*1*m^3 - 3*a^5*b^2*c*g*h*j*m^3 - 3*a^4*b^3*c*e*j*k*1^3 - 3*a*b^5 \\
& *c^2*e^3*j*k*1 + 36*a^4*c^4*d*e*h*j*1^2 + 36*a^4*c^4*d*e*g*k*1^2 - 36*a^3*c \\
& ^5*d*e^2*h*j*1 - 36*a^3*c^5*d*e^2*g*k*1 - 36*a^3*c^5*d*e^2*f*k*m + 24*a^4*b \\
& *c^3*e*h^3*k*m - 24*a^3*b*c^4*e^3*g*1*m - 18*a*b^4*c^3*d^3*j*k*1 - 12*a^4*b \\
& *c^3*g*h^3*j*1 - 12*a^4*b*c^3*f*h^3*k*1 - 12*a^4*b*c^3*d*h^3*1*m + 12*a^3*b \\
& *c^4*e^3*h*k*m + 6*a^4*b*c^3*f*h^3*j*m - 3*a^4*b^3*c*g*h*j*1^3 - 3*a^4*b^3*
\end{aligned}$$

$$\begin{aligned}
& c*f*h*k*1^3 - 3*a^4*b^3*c*e*g*1^3*m - 3*a^4*b^3*c*d*h*1^3*m - 3*a*b^5*c^2*e^3*h*k*m - 3*a*b^5*c^2*e^3*g*1*m + 36*a^4*c^4*e*f*g*h*1^2 - 36*a^4*c^4*d*e*f*j*m^2 - 36*a^3*c^5*e^2*f*g*h*1 - 36*a^3*c^5*d*f^2*g*j*k - 36*a^3*c^5*d*e*f^2*k*1 + 36*a^3*c^5*d*e*f^2*j*m - 18*a*b^4*c^3*d^3*h*k*m - 9*a*b^4*c^3*d^3*g*1*m + 30*a^5*b*c^2*d*g*k*m^3 - 30*a^4*b^3*c*d*g*k*m^3 - 24*a^5*b*c^2*e*f*k*m^3 - 24*a^5*b*c^2*d*f*1*m^3 + 24*a^4*b*c^3*e*g*j^3*m + 24*a^4*b*c^3*d*h*j^3*m + 15*a^4*b^3*c*e*f*k*m^3 + 15*a^4*b^3*c*d*f*1*m^3 + 12*a^5*b*c^2*e*g*j*m^3 + 12*a^5*b*c^2*d*h*j*m^3 - 12*a^4*b*c^3*f*h*j^3*k - 12*a^4*b*c^3*f*g*j^3*1 + 6*a^4*b^3*c*e*g*j*m^3 + 6*a^4*b^3*c*d*h*j*m^3 + 6*a^4*b*c^3*e*h*j^3*1 + 36*a^3*c^5*d*e*g^2*h*1 - 24*a^5*b*c^2*f*g*h*m^3 + 15*a^4*b^3*c*f*g*h*m^3 - 9*a*b^6*c*d^2*g*j*m^2 - 6*a^3*b^4*c*d*g*k*1^3 - 6*a*b^4*c^3*e^3*f*j*m + 3*a^3*b^4*c*e*g*j*1^3 + 3*a^3*b^4*c*e*f*k*1^3 + 3*a^3*b^4*c*d*h*j*1^3 + 3*a^3*b^4*c*d*e*1^3*m + 3*a*b^4*c^3*e^3*h*j*k + 3*a*b^4*c^3*e^3*g*j*1 + 3*a*b^4*c^3*e^3*f*k*1 + 3*a*b^4*c^3*d*e^3*1*m - 36*a^3*c^5*d*e*g*h^2*k + 30*a^2*b*c^5*d^3*f*j*m - 30*a*b^3*c^4*d^3*f*j*m + 24*a^3*b*c^4*d*g^3*j*1 - 24*a^2*b*c^5*d^3*h*j*k - 24*a^2*b*c^5*d^3*f*k*1 - 24*a^2*b*c^5*d^3*e*k*m + 15*a*b^3*c^4*d^3*h*j*k + 15*a*b^3*c^4*d^3*f*k*1 + 15*a*b^3*c^4*d^3*e*k*m - 12*a^3*b*c^4*e*g^3*j*k + 12*a^2*b*c^5*d^3*g*j*1 + 6*a*b^3*c^4*d^3*g*j*1 + 3*a^3*b^4*c*f*g*h*1^3 + 3*a*b^4*c^3*e^3*g*h*m + 24*a^3*b*c^4*d*g^3*h*m - 12*a^3*b*c^4*f*g^3*h*k + 12*a^2*b*c^5*d^3*g*h*m - 9*a^3*b^4*c*d*e*j*m^3 + 6*a^3*b*c^4*e*g^3*h*1 + 6*a*b^3*c^4*d^3*g*h*m + 36*a^3*c^5*d*e*f*g*k^2 - 36*a^2*c^6*d^2*e*f*g*k - 24*a^4*b*c^3*d*e*j*1^3 - 18*a^3*b^4*c*e*f*g*m^3 - 18*a^3*b^4*c*d*f*h*m^3 - 3*a^2*b^5*c*d*e*j*1^3 - 3*a*b^3*c^4*d*e^3*j*1 - 24*a^4*b*c^3*e*f*g*1^3 + 24*a^3*b*c^4*d*f*h^3*1 + 12*a^4*b*c^3*d*f*h*1^3 - 12*a^3*b*c^4*e*g*h^3*j - 12*a^3*b*c^4*e*f*h^3*k - 12*a^3*b*c^4*d*e*h^3*m - 12*a*b^2*c^5*d^3*e*j*k + 6*a^3*b*c^4*d*g*h^3*k - 3*a^2*b^5*c*e*f*g*1^3 - 3*a^2*b^5*c*d*f*h*1^3 - 3*a*b^3*c^4*e^3*g*h*j - 3*a*b^3*c^4*e^3*f*h*k - 3*a*b^3*c^4*e^3*f*g*1 - 3*a*b^3*c^4*d*e^3*h*m + 24*a*b^2*c^5*d^3*e*h*1 - 12*a*b^2*c^5*d^3*f*h*k - 3*a*b^2*c^5*d^3*g*h*j - 3*a*b^2*c^5*d^3*f*g*1 - 3*a*b^2*c^5*d^3*e*g*m + 48*a^4*b*c^3*d*e*f*m^3 + 24*a^2*b*c^5*d*e*f^3*m + 21*a^2*b^5*c*d*e*f*m^3 - 12*a^2*b*c^5*e*f^3*g*j - 12*a^2*b*c^5*d*f^3*h*j - 9*a*b^3*c^4*d*e*f^3*m + 6*a^2*b*c^5*d*f^3*g*k + 12*a*b^2*c^5*d*e^3*f*1 - 6*a*b^2*c^5*d*e^3*g*k + 3*a*b^2*c^5*d*e^3*h*j - 24*a^3*b*c^4*d*e*f*k^3 - 12*a^2*b*c^5*d*e*g^3*j - 3*a*b^5*c^2*d*e*f*k^3 + 3*a*b^2*c^5*e^3*f*g*h - 12*a^2*b*c^5*d*f*g^3*h + 9*a*b^2*c^5*d*e*f^3*j + 9*a*b*c^6*d^2*e^2*f*j + 3*a*b^4*c^3*d*e*f*j^3 + 9*a*b*c^6*d^2*e^2*g*h + 9*a*b*c^6*d^2*e^2*f^2*h - 3*a*b^3*c^4*d*e*f*h^3 - 18*a*b*c^6*d^2*e*f*g^2 + 9*a*b*c^6*d*e^2*f^2*g + 3*a*b^2*c^5*d*e*f*g^3 - 36*a^4*b^2*c^2*e^2*k*1^2*m - 9*a^4*b^2*c^2*g^2*j^2*k*m + 45*a^3*b^3*c^2*d^2*k^2*1*m + 36*a^4*b^2*c^2*e^2*j*1*m^2 + 9*a^4*b^2*c^2*g^2*j*k^2*1 + 9*a^3*b^3*c^2*e^2*j^2*1*m + 9*a^4*b^2*c^2*g^2*h*k^2*m - 9*a^4*b^2*c^2*f^2*h*1^2*m - 9*a^3*b^3*c^2*f^2*j^2*k*1 - 45*a^3*b^3*c^2*d^2*j*k*m^2 + 36*a^3*b^2*c^3*d^2*j^2*k*m + 18*a^4*b^2*c^2*f^2*h*k*m^2 + 18*a^4*b^2*c^2*f^2*g*1*m^2 - 9*a^4*b^2*c^2*g^2*h*k*1^2 - 9*a^4*b^2*c^2*f*h^2*k^2*m - 9*a^4*b^2*c^2*f*g^2*1^2*m - 9*a^4*b^2*c^2*e*j^2*k^2*1 - 9*a^4*b^2*c^2*d*j^2*k^2*m - 9*a^3*b^3*c^2*e^2*j*k*1^2 - 9*a^2*b^4*c^2*d^2*j^2*k*m - 36*a^3*b^2*c^3*d^2*j*k^2*1 - 27*a^3*b^2*c^3*e^2*h^2*k*m + 9*a^4*b^2*c^2*g*h^2*j*1^2 + 9*a^4*b^2*c^2*f*h^2*k*1^2 - 9*a^4*b^2*c^2*f*g^2*k*m^2 - 9*a^4*b^2*c^2*e*g^2*1*m^2 - 9*a^4*b^2*c^2*d*j^2*k*1^2 + 9*a^4*b^2*c^2*d*h^2*1^2*m - 9*a^3*b^3*c^2*e^2*g*1^2*m + 9*a^2*b^4*c^2*e^2*h^2*k*m + 9*a^2*b^4*c^2*d^2*j*k^2*1 - 45*a^3*b^3*c^2*e^2*h*j*m^2 + 36*a^4*b^2*c^2*e*h^2*j*m^2 + 36*a^3*b^2*c^3*e^2*h*j^2*m - 36*a^3*b^2*c^3*d^2*h*k^2*m + 36*a^2*b^3*c^3*d^2*g^2*1*m - 9*a^4*b^2*c^2*f*h*j^2*1^2 - 9*a^4*b^2*c^2*d*h^2*k*m^2 + 9*a^3*b^3*c^2*f^2*h*j*1^2 + 9*a^3*b^3*c^2*e^2*f*1*m^2 + 9*a^3*b^3*c^2*e*h^2*j^2*m - 9*a^3*b^2*c^3*f^2*h^2*j*1 - 9*a^2*b^4*c^2*e^2*h*j^2*m + 9*a^2*b^4*c^2*d^2*h*k^2*m + 36*a^3*b^2*c^3*d^2*h*k*1^2 - 27*a^4*b^2*c^2*e*g*j^2*m^2 - 27*a^4*b^2*c^2*d*h*j^2*m^2 - 9*a^4*b^2*c^2*d*h*k^2*1^2 - 9*a^3*b^3*c^2*e*f^2*k*m^2 - 9*a^3*b^3*c^2*d*f^2*1*m^2 + 9*a^3*b^2*c^3*f^2*h*j^2*k + 9*a^3*b^2*c^3*f^2*g*j^2*1 - 9*a^3*b^2*c^3*e^2*g*k^2*1 - 9*a^3*b^2*c^3*e^2*f*k^2*m - 9*a^3*b^2*c^3*d^2*f*1^2*m - 9*a^2*b^4*c^2*d^2*h*k*1^2 + 9*a^2*b^3*c^3*d^2*h^2*k*1 - 81*a^3*b^2*c^3*d^2*g*j*m^2 + 54*a^2*b^4*c^2*d^2*g
\end{aligned}$$

$$\begin{aligned}
& *j^m^2 - 45a^3b^3c^2d^2g^2j^m^2 - 45a^2b^3c^3d^2g^2j^2m + 36a^3b^2c^3d^2f^2k^2m^2 + 36a^3b^2c^3d^2g^2j^2m + 18a^3b^2c^3e^2g^2j^1^2 \\
& + 18a^3b^2c^3e^2f^2k^1^2 + 18a^3b^2c^3d^2e^2l^2m - 9a^4b^2c^2d^2f^2k^2m^2 - 9a^3b^3c^2d^2h^2j^1^2 - 9a^3b^2c^3f^2g^2j^k^2 - 9a^3b^2c^3d^2e^1m^2 - 9a^3b^2c^3f^2g^2h^2 \\
& *m - 9a^3b^2c^3e^2g^2j^2*1 - 9a^3b^2c^3e^2f^2k^2*1 - 9a^2b^4c^2d^2f^2k^2m^2 - 9a^2b^4c^2d^2g^2j^2m - 9a^2b^3c^3e^2h^2j^k - 9a^2b^2c^4d^2f^2k^2m \\
& - 27a^2b^2c^4d^2g^2j^1 - 9a^3b^3c^2f^2g^2h^2*1^2 + 9a^3b^2c^3e^2g^2j^k^2 - 9a^3b^2c^3e^2f^2j^1^2 - 9a^3b^2c^3d^2h^2j^2k - 9a^3b^2c^3d^2f^2k^1^2 - 9a^3b^2c^3d^2e^2k^2m^2 - 9a^2b^3c^3e^2g^2h^2m \\
& - 9a^2b^3c^3d^2h^2j^k^2 - 9a^2b^3c^3d^2f^2k^2*1 - 9a^2b^3c^3d^2e^2k^2m + 36a^3b^3c^2d^2e^2j^2m^2 + 36a^3b^2c^3e^2f^2h^2m^2 - 27a^2b^2c^4d^2g^2h^2m + 9a^3b^3c^2e^2f^2h^2m^2 + 9a^3b^2c^3f^2g^2h^2k^2 \\
& - 9a^2b^4c^2e^2f^2h^2m^2 + 9a^2b^3c^3d^2e^2k^1^2 - 9a^2b^2c^4e^2f^2h^2m - 45a^2b^3c^3d^2g^2h^2*1^2 - 36a^3b^2c^3e^2f^2g^2m^2 + 36a^3b^2c^3d^2g^2h^2*1^2 - 36a^3b^2c^3d^2f^2h^2m^2 + \\
& 36a^2b^2c^4d^2g^2h^2*1 - 9a^3b^2c^3e^2g^2h^2k^2 + 9a^2b^4c^2e^2f^2g^2m^2 - 9a^2b^4c^2d^2g^2h^2*1^2 + 9a^2b^4c^2d^2f^2h^2m^2 + 9a^2b^3c^3e^2g^2h^2k^2 + 9a^2b^3c^3d^2g^2h^2*1 - 9a^2b^3c^3d^2e^2j^1^2 - \\
& 9a^2b^2c^4e^2g^2h^2k - 9a^2b^2c^4e^2f^2g^2m - 9a^2b^2c^4d^2f^2j^2k - 9a^2b^2c^4d^2f^2h^2m - 9a^2b^2c^4d^2e^2j^2*1 - 45a^2b^3c^3d^2f^2g^2m^2 + 36a^3b^2c^3d^2f^2g^2m^2 - 27a^3b^2c^3d^2f^2h^2*1^2 \\
& + 18a^2b^2c^4d^2e^2j^k^2 + 9a^2b^4c^2d^2f^2h^2*1^2 - 9a^2b^4c^2d^2f^2g^2m^2 - 9a^2b^3c^3e^2f^2g^2*1^2 + 9a^2b^2c^4e^2g^2h^2j + 9a^2b^2c^4e^2f^2h^2k - 9a^2b^2c^4e^2f^2g^2*1 - 9a^2b^2c^4d^2f^2g^2m \\
& - 9a^2b^2c^4d^2e^2j^2k + 9a^2b^2c^4d^2e^2h^2m + 18a^4b^2c^2f^2j^2m^2 + 18a^3b^2c^3e^2h^2*1^2 - 9a^2b^4c^2e^2h^2*1^2 + 18a^2b^2c^4d^2g^2k^2 + 12a^6c^2j^3k^1m + 3a^6b^2j^k^1m^3 - 12a^6c^2g^2k^3*1m \\
& - 12a^5c^3g^2k^1m - 24a^6c^2e^2k^1^3m - 24a^4c^4e^3k^1m + 12a^6c^2h^2j^k^1^3 + 12a^6c^2f^2j^1^3m + 12a^5c^3h^3j^k^1 - 3a^5b^3h^2j^k^1m^3 - 3a^5b^3g^2j^1m^3 - 3a^5b^3f^2k^1m^3 + 12a^6c^2g^2h^2*1^3m \\
& + 12a^5c^3g^2h^2*1m - 12a^6c^2e^2j^k^1m^3 - 12a^6c^2d^2j^1m^3 - 12a^5c^3f^2j^3k^1 - 12a^5c^3e^2j^3k^1m - 12a^5c^3d^2j^3*1m - 12a^4c^4f^3j^k^1 + 24a^6c^2f^2h^2k^1m^3 + 24a^6c^2f^2g^2*1m^3 + \\
& 24a^4c^4f^3h^2k^1m + 24a^4c^4f^3g^2*1m - 12a^6c^2g^2h^2j^1m^3 - 12a^6c^2e^2h^2*1m^3 - 12a^5c^3g^2h^2j^3m + 3b^6c^2d^3j^k^1 + 3a^4b^4e^2j^k^1m^3 + 3a^4b^4d^2j^1m^3 - 24a^5c^3d^2j^k^3*1 - 24a^3c^5d^3j^k^1 \\
& - 6a^4b^4e^2h^2*1m^3 + 3b^6c^2d^3h^2k^1m + 3b^6c^2d^3g^2*1m + 3a^6b^2c^2j^2*1^3m + 3a^4b^4g^2h^2j^1m^3 + 3a^4b^4f^2h^2k^1m^3 + 3a^4b^4f^2g^2*1m^3 - 24a^5c^3d^2h^2k^3m - 24a^3c^5d^3h^2k^1m + 12a^5c^3g^2h^2j^k^3 + \\
& 12a^5c^3f^2g^2k^3*1 + 12a^5c^3e^2h^2k^3*1 + 12a^5c^3e^2g^2k^3m + 12a^4c^4g^3h^2j^k + 12a^4c^4f^2g^3k^1 + 12a^4c^4f^2g^3j^1m + 12a^4c^4e^2g^3k^1m + 12a^4c^4d^2g^3*1m + 12a^3c^5d^3g^2*1m + 3a^6b^2c^2j^k^3m^2 \\
& - 9a^6b^2c^2h^2*1m^3 - 3a^5b^2c^2j^4k^1 + 24a^5c^3e^2g^2j^1^3 + 24a^5c^3e^2f^2k^1^3 + 24a^5c^3d^2e^1^3m + 24a^3c^5e^3g^2j^1 + 24a^3c^5e^3f^2k^1 + 24a^3c^5d^2e^3*1m - 12a^5c^3d^2h^2j^1^3 - 12a^5c^3d^2g^2k^1^3 \\
& - 12a^4c^4e^2h^3j^k - 12a^4c^4d^2h^3j^1 - 12a^3c^5e^3h^2j^k - 12a^3c^5e^3f^2j^1m + 9a^4b^2c^3g^4*1m + 6b^5c^3d^3f^2j^1m + 6a^3b^5d^2g^2k^1m^3 - 3b^5c^3d^3h^2j^k - 3b^5c^3d^3g^2j^1 - 3b^5c^3d^3f^2k^1 \\
& - 3b^5c^3d^3e^2k^1m - 3a^3b^5e^2g^2j^1m^3 - 3a^3b^5e^2f^2k^1m^3 - 3a^3b^5d^2h^2j^1m^3 - 3a^3b^5d^2f^2*1m^3 - 12a^5c^3f^2g^2h^2*1^3 - 12a^4c^4f^2g^2h^3*1 - 12a^4c^4e^2g^2h^3m - 12a^3c^5e^3g^2h^2m - 9a^6b^2c^2g^2k^2m^3 \\
& - 3b^5c^3d^3g^2h^2m + 3a^6b^2c^2f^1^3m^2 - 3a^3b^5f^2g^2h^2m^3 + 12a^5c^3d^2e^2j^1m^3 + 12a^4c^4e^2f^2j^3k + 12a^4c^4d^2g^2j^3k + 12a^4c^4d^2f^2j^3*1 + 12a^4c^4d^2e^2j^3m + 12a^3c^5e^2f^3j^k + 12a^3c^5d^2f^3j^1 \\
& *j^1 - 9a^6b^2c^2e^1^2m^3 - 24a^5c^3e^2f^2g^2m^3 - 24a^5c^3d^2f^2h^2m^3 - 24a^3c^5e^2f^3g^2m - 24a^3c^5d^2f^3h^2m - 15a^2b^2c^5d^4*1m + 15a^2b^3c^4d^4*1m + 12a^4c^4f^2g^2h^2j^3 + 12a^3c^5f^3g^2h^2j + 12a^3c^5e^2f^3h^2*1 \\
& + 9a^3b^2c^4f^4k^1 - 9a^3b^2c^4f^4j^1m + 3b^4c^4d^3e^2j^k
\end{aligned}$$

$$\begin{aligned}
& + 3a^5b^2c^*g^*j^*l^4 + 3a^5b^2c^*f^*k^*l^4 + 3a^5b^2c^*d^*l^4m - 3a^5b^*c^2*h^*j^*k^4 - 3a^5b^*c^2*f^*k^4l - 3a^5b^*c^2*e^*k^4m - 3a^4b^*c^3*h^4* \\
& j^*k + 3a^2b^6d^*e^*j^*m^3 + 3a^*b^4c^3e^4*k^*m + 24a^4c^4d^*e^*j^*k^3 + 24 \\
& a^2c^6d^3e^*j^*k - 6b^4c^4d^3e^*h^*l + 3b^4c^4d^3g^*h^*j + 3b^4c^4* \\
& d^3f^*h^*k + 3b^4c^4d^3f^*g^*l + 3b^4c^4d^3e^*g^*m - 3a^4b^*c^3g^*h^4m \\
& + 3a^2b^6e^*f^*g^*m^3 + 3a^2b^6d^*f^*h^*m^3 - 3a^*b^6c^*e^3*j^*m^2 + 24a^4 \\
& c^4d^*f^*h^*k^3 + 24a^2c^6d^3f^*h^*k - 12a^4c^4e^*f^*g^*k^3 - 12a^3c^5e^ \\
& f^*g^3*k - 12a^3c^5d^*g^3h^*j - 12a^3c^5d^*f^*g^3l - 12a^3c^5d^*e^*g^3 \\
& *m - 12a^2c^6d^3g^*h^*j - 12a^2c^6d^3f^*g^*l - 12a^2c^6d^3e^*h^*l - 1 \\
& 2a^2c^6d^3e^*g^*m - 12a^*b^2c^5d^4*j^*l + 9a^5b^*c^2d^*j^*l^4 + 9a^2b^*c^ \\
& c^5e^4*j^*k - 3a^4b^3c^*d^*j^*l^4 - 3a^4b^*c^3e^*j^4*k - 3a^4b^*c^3d^*j^4 \\
& *l - 3a^*b^3c^4e^4*j^*k - 24a^4c^4d^*e^*f^*l^3 - 24a^2c^6d^*e^3*f^*l - 12 \\
& a^5b^2c^*e^*g^*m^4 - 12a^5b^2c^*d^*h^*m^4 + 12a^3c^5d^*e^*h^3*j + 12a^2c^ \\
& ^6d^*e^3h^*j + 12a^2c^6d^*e^3g^*k - 12a^*b^2c^5d^4h^*m + 9a^5b^*c^2f^* \\
& g^*l^4 - 9a^5b^*c^2e^*h^*l^4 - 9a^2b^*c^5e^4h^*l + 9a^2b^*c^5e^4g^*m + 6 \\
& a^4b^3c^*e^*h^*l^4 + 6a^*b^3c^4e^4h^*l - 3b^3c^5d^3e^*g^*j - 3b^3c^5* \\
& d^3e^*f^*k - 3a^4b^3c^*f^*g^*l^4 - 3a^4b^*c^3g^*h^*j^4 - 3a^3b^*c^4g^4h^*j \\
& - 3a^3b^*c^4f^*g^4l - 3a^3b^*c^4e^*g^4m - 3a^*b^3c^4e^4g^*m + 12a^3 \\
& c^5e^*f^*g^*h^3 + 12a^2c^6e^3f^*g^*h - 3b^3c^5d^3f^*g^*h - 12a^3c^5d^* \\
& e^*f^*j^3 - 12a^2c^6d^*e^*f^3*j - 3a^*b^6c^*d^2g^*l^3 - 15a^5b^*c^2d^*e^*m^4 \\
& + 15a^4b^3c^*d^*e^*m^4 + 9a^4b^*c^3e^*f^*k^4 - 9a^4b^*c^3d^*g^*k^4 + 3a^3 \\
& b^4c^*d^*f^*l^4 - 3a^3b^*c^4d^*h^4*j - 3a^2b^*c^5e^*f^4*k - 3a^2b^*c^5d^* \\
& f^4*l + 3a^*b^2c^5e^4g^*j + 3a^*b^2c^5e^4f^*k + 3a^*b^2c^5d^*e^4m - 9 \\
& a^*b^*c^6d^3e^2*l + 3b^2c^6d^3e^*f^*g - 3a^3b^*c^4f^*g^*h^4 - 3a^2b^*c^ \\
& 5f^4g^*h + 12a^2c^6d^*e^*f^*g^3 - 9a^*b^*c^6d^3f^2*j + 3a^*b^*c^6d^2e^3* \\
& k + 9a^3b^*c^4d^*e^*j^4 - 3a^2b^*c^5e^*f^*g^4 - 9a^*b^*c^6d^3e^*h^2 + 3a^*b^ \\
& *c^6d^2f^3g + 3a^*b^*c^6d^*e^3g^2 - 3a^4b^2c^2h^3j^2m + 12a^4b^2 \\
& c^2g^3j^*m^2 - 3a^4b^2c^2f^2k^3m + 3a^3b^3c^2g^3j^2m - 9a^3* \\
& b^4c^*f^2j^2m^2 + 9a^3b^3c^2f^2j^3m - 6a^3b^3c^2f^3j^*m^2 - 6a^ \\
& ^3b^2c^3f^3j^2m - 3a^2b^4c^2f^3j^2m - 27a^4b^2c^2d^2k^*m^3 - \\
& 27a^3b^2c^3e^3j^*m^2 + 18a^2b^4c^2e^3j^*m^2 - 15a^2b^3c^3e^3j^ \\
& ^2m + 12a^4b^2c^2f^2j^*l^3 + 3a^3b^3c^2e^2k^3l + 42a^2b^3c^3* \\
& d^3j^*m^2 - 27a^2b^2c^4d^3j^2m - 15a^3b^3c^2d^2k^*l^3 - 3a^4b^2 \\
& c^2f^*j^2k^3 - 3a^4b^2c^2f^*h^3m^2 + 3a^3b^3c^2g^3h^*l^2 + 3a^3* \\
& b^3c^2f^2j^*k^3 - 3a^3b^2c^3g^3h^2*l - 3a^3b^2c^3e^2j^3*l - 27* \\
& a^4b^2c^2e^2h^*m^3 + 12a^3b^2c^3f^3h^*l^2 + 3a^3b^3c^2f^*g^3m^2 \\
& - 3a^2b^4c^2f^3h^*l^2 + 3a^2b^3c^3f^3h^2*l + 9a^3b^3c^2e^*h^3l \\
& ^2 + 9a^2b^3c^3e^2h^3*l - 6a^4b^2c^2e^*h^2l^3 - 6a^3b^3c^2e^2* \\
& h^*l^3 - 6a^2b^3c^3e^3h^*l^2 - 6a^2b^2c^4e^3h^2*l + 3a^2b^3c^3d^ \\
& ^2j^3*k + 42a^3b^3c^2d^2g^*m^3 - 27a^4b^2c^2d^*g^2m^3 - 27a^2b^2 \\
& c^4d^3h^*l^2 - 15a^2b^3c^3e^3f^*m^2 + 12a^3b^2c^3e^2h^*k^3 + 3a^ \\
& 3b^3c^2e^*h^2k^3 - 3a^3b^2c^3e^*g^3l^2 - 3a^2b^4c^2e^2h^*k^3 + 3 \\
& a^2b^3c^3f^3g^*k^2 - 3a^2b^2c^4f^3g^2*k - 27a^3b^2c^3d^2g^*l^3 \\
& - 27a^2b^2c^4d^3f^*m^2 + 18a^2b^4c^2d^2g^*l^3 - 15a^3b^3c^2d^*g^ \\
& ^2l^3 + 12a^2b^2c^4e^3g^*k^2 - 3a^3b^2c^3e^*h^2j^3 + 3a^2b^3c^3 \\
& e^2h^*j^3 + 3a^2b^3c^3e^*f^3l^2 - 3a^2b^2c^4d^2h^3*k + 9a^2b^3* \\
& c^3d^*g^3k^2 - 9a^*b^4c^3d^2g^2k^2 - 6a^3b^2c^3d^*g^2k^3 - 6a^2b^ \\
& ^3c^3d^2g^*k^3 - 3a^2b^4c^2d^*g^2k^3 + 12a^2b^2c^4d^2g^*j^3 + 3a^ \\
& ^2b^3c^3d^*g^2j^3 - 3a^2b^2c^4d^*f^3k^2 - 3a^2b^2c^4d^*g^2h^3 + \\
& 12a^7c^*j^*k^*l^*m^3 - 3b^7c^*d^3*k^*l^*m - 3a^6b^*c^*k^4*l^*m - 3a^6b^*c^*j^*k^* \\
& l^4 - 3a^6b^*c^*g^*l^4*m - 9a^6b^*c^*f^*j^*m^4 + 9a^6b^*c^*e^*k^*m^4 + 9a^6b^*c^ \\
& *d^*l^*m^4 + 9a^6b^*c^*g^*h^*m^4 - 3a^*b^7d^*e^*f^*m^3 + 9a^*b^*c^6d^4h^*j - 9a^* \\
& b^*c^6d^4g^*k + 9a^*b^*c^6d^4f^*l + 9a^*b^*c^6d^4e^*m + 12a^*c^7d^3e^*f^*g \\
& - 3a^*b^*c^6d^*e^4*j - 3a^*b^*c^6e^4f^*g - 3a^*b^*c^6d^*e^*f^4 + 18a^6c^2h^ \\
& ^2*j^*l^*m^2 - 18a^6c^2h^*j^2l^2m + 18a^6c^2f^*k^2l^2m + 36a^5c^3e^ \\
& ^2*k^*l^2m + 18a^6c^2g^*j^*k^2m^2 + 18a^6c^2e^*k^2l^*m^2 + 18a^5c^3g^ \\
& ^2*j^2k^*m + 18a^6c^2e^*j^*l^2m^2 + 18a^6c^2d^*k^*l^2m^2 - 18a^5c^3e^ \\
& ^2*j^*l^*m^2 - 18a^6c^2f^*h^*l^2m^2 + 18a^5c^3f^2h^*l^2m - 36a^5c^3f^ \\
& ^2h^*k^*m^2 - 36a^5c^3f^2g^*l^*m^2 + 18a^5c^3g^2h^*k^*l^2 - 18a^5c^3g^
\end{aligned}$$

$$\begin{aligned}
& h^2k^2l + 18a^5c^3fh^2k^2m + 18a^5c^3fg^2l^2m + 18a^5c^3ej^2k^2l + 18a^5c^3d^2j^2k^2m - 18a^4c^4d^2j^2km + 36a^4c^4d^2jk^2l + 18a^5c^3fg^2km^2 + 18a^5c^3eg^2lm^2 + 18a^5c^3dj^2k^2l - 18a^4c^4f^2g^2km + 36a^4c^4d^2hk^2m + 18a^5c^3fh^2j^2l - 18a^5c^3eh^2jm^2 + 18a^5c^3d^2h^2km^2 + 18a^4c^4f^2h^2j^2l - 18a^4c^4e^2hj^2m - 18a^5c^3eg^2k^2l + 18a^5c^3dh^2k^2l + 18a^4c^4e^2g^2k^2l + 18a^4c^4e^2fk^2m - 18a^4c^4d^2hk^2l + 18a^4c^4d^2fl^2m - 36a^4c^4e^2g^2j^2l - 36a^4c^4e^2fk^2l - 36a^4c^4d^2e^2l^2m + 18a^5c^3d^2fk^2m^2 + 18a^4c^4f^2g^2jk^2 + 18a^4c^4d^2g^2jm^2 - 18a^4c^4d^2fk^2m^2 + 18a^4c^4d^2e^2lm^2 - 18a^4c^4fg^2j^2k + 18a^4c^4fg^2h^2m + 18a^4c^4eg^2j^2l + 18a^4c^4ef^2k^2l - 18a^4c^4dg^2j^2m - 18a^4c^4df^2k^2m + 18a^3c^5d^2f^2km + 3a^4b^2c^2h^4km - 3a^3b^3c^2g^4lm + 18a^4c^4ef^2j^2l + 18a^4c^4d^2h^2j^2k + 18a^4c^4d^2k^2l + 18a^4c^4d^2e^2km^2 - 18a^3c^5e^2f^2j^2l + 12a^5b^2c^2g^2km^3 - 9a^5b^2c^2h^3jm^2 - 9a^5b^2c^2f^2l^3m + 3a^5b^2c^2h^2k^3l + 3a^4b^3c^2h^3jm^2 + 3a^4b^3c^2f^2l^3m - 18a^4c^4e^2f^2hm^2 + 18a^3c^5e^2f^2hm + 15a^5b^2c^2e^2lm^3 - 15a^4b^3c^2e^2lm^3 - 9a^5b^2c^2g^2k^2l^3 - 9a^4b^3c^3g^3j^2m - 3a^5b^2c^2g^2k^2l^3 + 3a^5b^2c^2h^2j^3l^2 + 3a^4b^3c^2g^2k^2l^3 - 3a^3b^4c^2g^3jm^2 + 36a^4c^4ef^2gm^2 + 36a^4c^4d^2f^2hm^2 + 18a^4c^4eg^2h^2k^2 - 18a^4c^4d^2g^2h^2l - 18a^4c^4d^2f^2j^2k^2 + 18a^3c^5e^2g^2hk + 18a^3c^5e^2f^2g^2m - 18a^3c^5d^2g^2h^2l + 18a^3c^5d^2f^2j^2k + 18a^3c^5d^2f^2h^2m + 18a^3c^5d^2ej^2l - 12a^2b^2c^4e^4km + 9a^4b^3c^2f^2j^3m^2 - 9a^4b^2c^2f^2j^4m - 6a^5b^2c^2f^2jm^3 + 6a^5b^2c^2f^2jm^3 - 6a^5b^2c^2f^2j^3m^2 - 6a^4b^3c^2f^2jm^3 + 6a^4b^3c^3f^3jm^2 - 6a^4b^3c^3f^2j^3m + 6a^2b^3c^3f^4jm + 3a^3b^2c^3g^4j^2l + 3a^2b^5c^2f^3jm^2 - 3a^2b^3c^3f^4k^2l - 36a^3c^5d^2ej^2k^2 - 18a^4c^4d^2fg^2m^2 + 18a^3c^5ef^2g^2l + 18a^3c^5d^2f^2g^2m + 18a^3c^5d^2e^2j^2k + 18a^3b^4c^2d^2km^3 + 15a^3b^4c^2e^3j^2m + 12a^5b^2c^2dk^2m^3 - 9a^5b^2c^2f^2j^2l^3 - 9a^4b^3c^3e^2k^3l + 3a^5b^2c^2ek^3l^2 + 3a^4b^3c^2f^2j^2l^3 + 3a^4b^3c^3g^2j^3k - 3a^3b^4c^2f^2j^2l^3 + 3a^3b^2c^3g^4hm + 3a^2b^5c^2e^3j^2m - 36a^3c^5d^2f^2hk^2 - 21a^3b^4c^2d^3jm^2 - 21a^2b^5c^2d^3jm^2 + 18a^3c^5e^2f^2hj^2 - 18a^3c^5ef^2h^2j + 18a^3c^5d^2f^2h^2k + 18a^2b^4c^3d^3j^2m + 15a^4b^3c^3d^2k^2l^3 - 9a^5b^2c^2dk^2l^3 - 9a^4b^3c^3g^3h^2l - 9a^4b^3c^3f^2j^2k^3 + 3a^4b^3c^3d^2k^2l^3 + 3a^2b^5c^2d^2k^2l^3 - 18a^3c^5d^2eg^2l + 18a^3c^5d^2eh^2k^2 + 18a^3b^4c^2e^2hm^3 - 18a^2c^6d^2e^2hk + 18a^2c^6d^2e^2g^2l + 18a^2c^6d^2e^2fm + 15a^5b^2c^2eh^2m^3 - 15a^4b^3c^2eh^2m^3 - 9a^4b^3c^3fg^3m^2 - 9a^3b^4c^4f^3h^2l + 3a^4b^2c^2ej^2k^4 + 3a^4b^3c^3g^2h^3k^2 + 3a^3b^4c^4f^2g^3m + 36a^3c^5d^2e^2f^2l + 18a^3c^5d^2fg^2j^2 + 18a^2c^6d^2f^2g^2j + 18a^2c^6d^2ef^2l - 9a^3b^2c^3eh^4l - 9a^3b^4c^4d^2j^3k + 6a^4b^3c^3e^2h^2l^3 - 6a^4b^3c^3eh^3l^2 + 6a^3b^4c^4e^3h^2l - 6a^3b^4c^4e^2h^3l + 3a^4b^2c^2f^2hk^4 + 3a^4b^3c^3d^2j^3k^2 - 3a^3b^4c^2eh^2l^3 + 3a^2b^5c^2eh^2l^3 + 3a^2b^2c^4f^4hk + 3a^2b^2c^4f^4g^2l + 3a^2b^5c^2e^3h^2l - 3a^2b^4c^3e^3h^2l - 21a^4b^3c^3d^2gm^3 - 21a^2b^5c^2d^2gm^3 + 18a^3b^4c^2d^2gm^3 + 18a^2c^6d^2e^2f^2k + 18a^2b^4c^3d^3h^2l^2 + 15a^3b^4c^4e^3fm^2 + 15a^2b^3c^5d^3h^2l - 15a^2b^3c^4d^3h^2l - 9a^4b^3c^3eh^2k^3 - 9a^3b^4c^4f^3g^2k^2 - 9a^2b^3c^5e^3f^2m + 3a^3b^4c^4f^2h^3j + 3a^2b^5c^2e^3fm^2 + 3a^2b^3c^4e^3f^2m + 18a^2b^4c^3d^3fm^2 + 15a^4b^3c^3d^2g^2l^3 + 12a^2b^2c^5d^3f^2m - 9a^3b^4c^4e^2hj^3 - 9a^3b^4c^4ef^3l^2 - 9a^2b^3c^5e^3g^2k + 3a^3b^4c^4fg^3j^2 + 3a^2b^5c^2d^2g^2l^3 + 3a^2b^3c^5e^2f^3l - 3a^2b^4c^3e^3g^2k^2 + 3a^2b^3c^4e^3g^2k + 18a^2c^6d^2eg^2h - 18a^2c^6d^2e^2g^2h - 12a^4b^2c^2d^2f^4l - 9a^2b^2c^4d^2g^4k + 9a^2b^3c^4d^2g^3k + 6a^3b^3c^2d^2g^2k^4 + 6a^3b^3c^4d^2g^2k^3 - 6a^3b^3c^4d^2g^3k^2 + 6a^2b^3c^5d^3g^2k^2 - 6a^2b^3c^5d^2g^3k - 6a^2b^3c^4d^3k
\end{aligned}$$

$$\begin{aligned}
&g^k^2 - 6*a*b^2*c^5*d^3*g^2*k - 3*a^3*b^3*c^2*e*f*k^4 + 3*a^3*b^2*c^3*e*g*j \\
&^4 + 3*a^3*b^2*c^3*d*h*j^4 + 3*a*b^5*c^2*d^2*g*k^3 + 15*a^2*b*c^5*d^3*e*l^2 \\
&- 15*a*b^3*c^4*d^3*e*l^2 - 9*a^3*b*c^4*d*g^2*j^3 - 9*a^2*b*c^5*e^3*f*j^2 - \\
&3*a*b^4*c^3*d^2*g*j^3 + 3*a*b^3*c^4*e^3*f*j^2 - 3*a*b^2*c^5*e^3*f^2*j + 12 \\
&*a*b^2*c^5*d^3*f*j^2 - 9*a^2*b*c^5*d*e^3*k^2 + 3*a^2*b*c^5*e^2*g^3*h + 3*a* \\
&b^3*c^4*d*e^3*k^2 - 9*a^2*b*c^5*d^2*g*h^3 - 3*a^2*b^3*c^3*d*e*j^4 + 3*a^2*b \\
&*c^5*e*f^3*h^2 + 3*a*b^3*c^4*d^2*g*h^3 + 3*a^2*b^2*c^4*d*f*h^4 - 9*a^7*c*k^ \\
&2*l^2*m^2 - 6*a^6*c^2*j^2*k^3*m - 3*a^6*b^2*h*l^2*m^3 + 3*a^5*b^3*h^2*l*m^3 \\
&- 6*a^6*c^2*g^2*k*m^3 - 6*a^6*c^2*h*k^3*l^2 + 6*a^5*c^3*h^3*j^2*m + 6*a^6*c \\
&^2*g*k^2*l^3 - 6*a^6*c^2*f*k^3*m^2 - 6*a^5*c^3*h^2*j^3*l - 6*a^5*c^3*g^3*j \\
&*m^2 + 6*a^5*c^3*f^2*k^3*m + 3*a^5*b^3*g*k^2*m^3 - 3*a^4*b^4*g^2*k*m^3 + 12 \\
&*a^6*c^2*f*j^2*m^3 + 12*a^4*c^4*f^3*j^2*m + 3*a^5*b^3*e*l^2*m^3 + 3*a^3*b^5 \\
&*e^2*l*m^3 - 6*a^6*c^2*d*k^2*m^3 - 6*a^5*c^3*f^2*j*l^3 + 6*a^5*c^3*d^2*k*m^ \\
&3 - 6*a^5*c^3*g*j^3*k^2 + 6*a^4*c^4*e^3*j*m^2 - 3*b^6*c^2*d^3*j^2*m - 3*a^4 \\
&*b^4*f*j^2*m^3 + 3*a^3*b^5*f^2*j*m^3 + 6*a^5*c^3*f*j^2*k^3 + 6*a^5*c^3*f*h^ \\
&3*m^2 - 6*a^5*c^3*e*j^3*l^2 + 6*a^4*c^4*g^3*h^2*l - 6*a^4*c^4*f^2*h^3*m + 6 \\
&*a^4*c^4*e^2*j^3*l + 6*a^3*c^5*d^3*j^2*m - 3*a^4*b^4*d*k^2*m^3 - 3*a^2*b^6* \\
&d^2*k*m^3 + 6*a^5*c^3*e^2*h*m^3 - 6*a^4*c^4*g^2*h^3*k - 6*a^4*c^4*f^3*h*l^2 \\
&+ 12*a^5*c^3*e*h^2*l^3 + 12*a^3*c^5*e^3*h^2*l - 3*b^6*c^2*d^3*h*l^2 + 3*b^ \\
&5*c^3*d^3*h^2*l - 3*a^5*b^2*c*j^4*m^2 + 3*a^3*b^5*e*h^2*m^3 - 3*a^2*b^6*e^2 \\
&*h*m^3 + 6*a^5*c^3*d*g^2*m^3 - 6*a^4*c^4*e^2*h*k^3 - 6*a^4*c^4*f*h^3*j^2 + \\
&6*a^4*c^4*e*g^3*l^2 + 6*a^3*c^5*f^3*g^2*k - 6*a^3*c^5*e^2*g^3*l + 6*a^3*c^5 \\
&*d^3*h*l^2 - 3*b^6*c^2*d^3*f*m^2 - 3*b^4*c^4*d^3*f^2*m + 6*a^4*c^4*d^2*g*l^ \\
&3 + 6*a^4*c^4*e*h^2*j^3 - 6*a^4*c^4*d*h^3*k^2 - 6*a^3*c^5*f^2*g^3*j - 6*a^3 \\
&*c^5*e^3*g*k^2 + 6*a^3*c^5*d^3*f*m^2 + 6*a^3*c^5*d^2*h^3*k - 6*a^2*c^6*d^3* \\
&f^2*m + 4*a^5*b^2*c*h^3*m^3 + 3*b^5*c^3*d^3*g*k^2 - 3*b^4*c^4*d^3*g^2*k - 3 \\
&*a^2*b^6*d*g^2*m^3 + a^5*b*c^2*j^3*k^3 + 12*a^4*c^4*d*g^2*k^3 + 12*a^2*c^6* \\
&d^3*g^2*k + 6*a^5*b*c^2*h^3*l^3 + 5*a^5*b*c^2*g^3*m^3 - 5*a^4*b^3*c*g^3*m^3 \\
&+ 3*b^5*c^3*d^3*e*l^2 + 3*b^3*c^5*d^3*e^2*l - 3*a^5*b^2*c*h^2*l^4 + a^4*b^ \\
&3*c*h^3*l^3 + 12*a^5*b^2*c*f^2*m^4 - 6*a^3*c^5*d^2*g*j^3 + 6*a^3*c^5*d*f^3* \\
&k^2 + 6*a^3*b^4*c*f^3*m^3 + 6*a^2*c^6*e^3*f^2*j - 6*a^2*c^6*d^2*f^3*k - 3*b \\
&^4*c^4*d^3*f*j^2 + 3*b^3*c^5*d^3*f^2*j - 3*a^2*b^2*c^4*f^5*m - 7*a^4*b*c^3* \\
&e^3*m^3 - 7*a^2*b^5*c*e^3*m^3 + 6*a^4*b*c^3*g^3*k^3 - 6*a^3*c^5*e*g^3*h^2 - \\
&6*a^2*c^6*d^3*f*j^2 + 5*a^4*b*c^3*f^3*l^3 + a^4*b*c^3*h^3*j^3 + a^2*b^5*c* \\
&f^3*l^3 + 6*a^3*c^5*d*g^2*h^3 - 6*a^2*c^6*e^2*f^3*h - 3*a^3*b^4*c*e^2*l^4 - \\
&3*a*b^4*c^3*e^4*l^2 - 7*a^3*b*c^4*d^3*l^3 - 7*a*b^5*c^2*d^3*l^3 + 6*a^3*b* \\
&c^4*f^3*j^3 + 5*a^3*b*c^4*e^3*k^3 + 3*b^3*c^5*d^3*e*h^2 - 3*b^2*c^6*d^3*e^2 \\
&*h + a*b^5*c^2*e^3*k^3 + 12*a*b^2*c^5*d^4*k^2 - 6*a^2*c^6*d*f^3*g^2 + 6*a*b \\
&^4*c^3*d^3*k^3 - 3*a^4*b^2*c^2*d*k^5 + a^3*b*c^4*g^3*h^3 + 5*a^2*b*c^5*d^3* \\
&j^3 - 5*a*b^3*c^4*d^3*j^3 - 9*a*c^7*d^2*e^2*f^2 + 6*a^2*b*c^5*e^3*h^3 - 3*a \\
&*b^2*c^5*e^4*h^2 + a^2*b*c^5*f^3*g^3 + a*b^3*c^4*e^3*h^3 + 4*a*b^2*c^5*d^3* \\
&h^3 - 3*a*b^2*c^5*d^2*g^4 - 6*a^7*c*j*l^3*m^2 + 6*a^7*c*h*l^2*m^3 + 6*a^6*c \\
&^2*j*k^4*l + 6*a^6*c^2*h*k^4*m - 6*a^5*c^3*h^4*k*m + 3*a^6*b^2*h*k*m^4 + 3* \\
&a^6*b^2*g*l*m^4 - 3*b^5*c^3*d^4*l*m - 6*a^6*c^2*g*j*l^4 - 6*a^6*c^2*f*k*l^4 \\
&- 6*a^6*c^2*d*l^4*m + 6*a^5*c^3*h*j^4*k + 6*a^5*c^3*g*j^4*l + 6*a^5*c^3*f* \\
&j^4*m - 6*a^4*c^4*g^4*j*l + 6*a^3*c^5*e^4*k*m + 6*a^5*b^3*f*j*m^4 - 6*a^4*c \\
&^4*g^4*h*m + 3*b^7*c*d^3*j*m^2 - 3*a^5*b^3*e*k*m^4 - 3*a^5*b^3*d*l*m^4 + 3* \\
&b^4*c^4*d^4*j*l - 3*a^5*b^3*g*h*m^4 - 6*a^5*c^3*e*j*k^4 + 6*a^2*c^6*d^4*j*l \\
&+ 3*b^4*c^4*d^4*h*m + 6*a^6*c^2*e*g*m^4 + 6*a^6*c^2*d*h*m^4 + 6*a^6*b*c*j^ \\
&3*m^3 - 6*a^5*c^3*f*h*k^4 + 6*a^4*c^4*g*h^4*j + 6*a^4*c^4*f*h^4*k + 6*a^4*c \\
&^4*e*h^4*l + 6*a^4*c^4*d*h^4*m - 6*a^3*c^5*f^4*h*k - 6*a^3*c^5*f^4*g*l + 6* \\
&a^2*c^6*d^4*h*m + 3*a^5*b*c^2*j^5*m + a^6*b*c*k^3*l^3 + 3*a^4*b^4*e*g*m^4 + \\
&3*a^4*b^4*d*h*m^4 + 6*b^3*c^5*d^4*g*k - 3*b^3*c^5*d^4*h*j - 3*b^3*c^5*d^4* \\
&f*l - 3*b^3*c^5*d^4*e*m + 3*a*b^7*d^2*g*m^3 + 6*a^5*c^3*d*f*l^4 - 6*a^4*c^4 \\
&*e*g*j^4 - 6*a^4*c^4*d*h*j^4 + 6*a^3*c^5*e*g^4*j + 6*a^3*c^5*d*g^4*k - 6*a^ \\
&2*c^6*e^4*g*j - 6*a^2*c^6*e^4*f*k - 6*a^2*c^6*d*e^4*m + 3*a^4*b*c^3*h^5*l + \\
&6*a^3*c^5*f*g^4*h - 3*a^3*b^5*d*e*m^4 + 3*b^2*c^6*d^4*e*j + 3*a^5*b*c^2*g* \\
&k^5 + 3*a^3*b*c^4*g^5*k + 8*a*b^6*c*d^3*m^3 + 3*b^2*c^6*d^4*f*h - 3*a^5*b^2 \\
&*c*e*l^5 - 3*a*b^2*c^5*e^5*l - 6*a^3*c^5*d*f*h^4 + 6*a^2*c^6*e*f^4*g + 6*a^
\end{aligned}$$



$$\begin{aligned}
& 2*c^6*d*f^4*h + 3*a^4*b*c^3*f*j^5 + 3*a^2*b*c^5*f^5*j + 6*a*c^7*d^3*e^2*h - \\
& 6*a*c^7*d^2*e^3*g + 3*a^3*b*c^4*e*h^5 + 6*a*b*c^6*d^3*g^3 + 3*a^2*b*c^5*d* \\
& g^5 + a*b*c^6*e^3*f^3 - 9*a^6*c^2*j^2*k^2*l^2 - 9*a^6*c^2*h^2*k^2*m^2 - 9*a \\
& ^6*c^2*g^2*l^2*m^2 - 18*a^5*c^3*f^2*j^2*m^2 - 9*a^5*c^3*h^2*j^2*k^2 - 9*a^5 \\
& *c^3*g^2*j^2*l^2 - 9*a^5*c^3*f^2*k^2*l^2 - 9*a^5*c^3*e^2*k^2*m^2 - 9*a^5*c^ \\
& 3*d^2*l^2*m^2 - 9*a^5*c^3*g^2*h^2*m^2 - 9*a^4*c^4*e^2*j^2*k^2 - 9*a^4*c^4*d \\
& ^2*j^2*l^2 - 18*a^4*c^4*e^2*h^2*l^2 - 9*a^4*c^4*g^2*h^2*j^2 - 9*a^4*c^4*f^2 \\
& *h^2*k^2 - 9*a^4*c^4*f^2*g^2*l^2 - 9*a^4*c^4*e^2*g^2*m^2 - 9*a^4*c^4*d^2*h^ \\
& 2*m^2 - 18*a^3*c^5*d^2*g^2*k^2 - 9*a^3*c^5*e^2*g^2*j^2 - 9*a^3*c^5*e^2*f^2* \\
& k^2 - 9*a^3*c^5*d^2*h^2*j^2 - 9*a^3*c^5*d^2*f^2*l^2 - 9*a^3*c^5*d^2*e^2*m^2 \\
& - 3*a^4*b^2*c^2*h^4*l^2 - 18*a^4*b^2*c^2*f^3*m^3 + 12*a^3*b^2*c^3*f^4*m^2 \\
& - 9*a^3*c^5*f^2*g^2*h^2 + 4*a^4*b^2*c^2*g^3*l^3 - 3*a^2*b^4*c^2*f^4*m^2 + 1 \\
& 4*a^3*b^3*c^2*e^3*m^3 - 5*a^3*b^3*c^2*f^3*l^3 - 3*a^4*b^2*c^2*g^2*k^4 - 3*a \\
& ^3*b^2*c^3*g^4*k^2 + a^3*b^3*c^2*g^3*k^3 - 20*a^2*b^4*c^2*d^3*m^3 - 18*a^3*b \\
& ^2*c^3*e^3*l^3 + 16*a^3*b^2*c^3*d^3*m^3 + 12*a^4*b^2*c^2*e^2*l^4 + 12*a^2*b \\
& ^2*c^4*e^4*l^2 - 9*a^2*c^6*d^2*e^2*j^2 + 6*a^2*b^4*c^2*e^3*l^3 + 4*a^3*b^2 \\
& *c^3*f^3*k^3 + 14*a^2*b^3*c^3*d^3*l^3 - 9*a^2*c^6*e^2*f^2*g^2 - 9*a^2*c^6*d \\
& ^2*f^2*h^2 - 5*a^2*b^3*c^3*e^3*k^3 - 3*a^3*b^2*c^3*f^2*j^4 - 3*a^2*b^2*c^4*f \\
& ^4*j^2 + a^2*b^3*c^3*f^3*j^3 - 18*a^2*b^2*c^4*d^3*k^3 + 12*a^3*b^2*c^3*d^2 \\
& *k^4 + 4*a^2*b^2*c^4*e^3*j^3 - 3*a^2*b^4*c^2*d^2*k^4 - 3*a^2*b^2*c^4*e^2*h^ \\
& 4 + 6*a^7*c*k*l^4*m - 3*a^7*b*k*l*m^4 - 6*a^7*c*h*k*m^4 - 6*a^7*c*g*l*m^4 + \\
& 3*a^6*b*c*h*l^5 - 6*a*c^7*d^4*e*j - 6*a*c^7*d^4*f*h - 3*b*c^7*d^4*e*f + 6* \\
& a*c^7*d*e^4*f + 3*a*b*c^6*e^5*h - a^5*b^2*c*j^3*l^3 - a^3*b^4*c*g^3*l^3 - a \\
& *b^4*c^3*e^3*j^3 - a*b^2*c^5*e^3*g^3 + 3*a^7*b*j*m^5 + 6*a^7*c*f*m^5 + 6*a* \\
& c^7*d^5*k + 3*b*c^7*d^5*g - 3*a^6*c^2*j^4*m^2 - 3*a^6*b^2*j^2*m^4 + 2*a^6*c \\
& ^2*j^3*l^3 + a^5*b^3*j^3*m^3 - 2*a^6*c^2*h^3*m^3 - 3*a^6*c^2*h^2*l^4 - 3*a^ \\
& 5*c^3*h^4*l^2 - a*b^6*c*e^3*l^3 + 20*a^5*c^3*f^3*m^3 - 15*a^6*c^2*f^2*m^4 - \\
& 15*a^4*c^4*f^4*m^2 + 2*a^5*c^3*h^3*k^3 - 2*a^5*c^3*g^3*l^3 + a^3*b^5*g^3*m \\
& ^3 - 3*a^5*c^3*g^2*k^4 - 3*a^4*c^4*g^4*k^2 - 3*a^4*b^4*f^2*m^4 + 20*a^4*c^4 \\
& *e^3*l^3 - 15*a^5*c^3*e^2*l^4 - 15*a^3*c^5*e^4*l^2 + 2*a^4*c^4*g^3*j^3 - 2* \\
& a^4*c^4*f^3*k^3 - 2*a^4*c^4*d^3*m^3 - 3*b^4*c^4*d^4*k^2 - 3*a^4*c^4*f^2*j^4 \\
& - 3*a^3*c^5*f^4*j^2 + 20*a^3*c^5*d^3*k^3 - 15*a^4*c^4*d^2*k^4 - 15*a^2*c^6 \\
& *d^4*k^2 - 2*a^3*c^5*e^3*j^3 + b^5*c^3*d^3*j^3 + 2*a^3*c^5*f^3*h^3 - 3*a^3* \\
& c^5*e^2*h^4 - 3*a^2*c^6*e^4*h^2 - 3*b^2*c^6*d^4*g^2 + 2*a^2*c^6*e^3*g^3 - 2 \\
& *a^2*c^6*d^3*h^3 + b^3*c^5*d^3*g^3 - 3*a^2*c^6*d^2*g^4 - a^4*b^2*c^2*h^3*k^ \\
& 3 - a^3*b^2*c^3*g^3*j^3 - a^2*b^4*c^2*f^3*k^3 - a^2*b^2*c^4*f^3*h^3 + 2*a^7 \\
& *c*k^3*m^3 + a^7*b*l^3*m^3 - 3*a^7*c*j^2*m^4 + 6*a^3*c^5*f^5*m - 3*a^6*b^2*f \\
& *m^5 + 6*a^6*c^2*e^1^5 + 6*a^2*c^6*e^5*l + b^7*c*d^3*l^3 + a*b^7*e^3*m^3 - \\
& 3*b^2*c^6*d^5*k + 6*a^5*c^3*d*k^5 - 3*a*c^7*d^4*g^2 + 2*a*c^7*d^3*f^3 + b* \\
& c^7*d^3*e^3 - a^6*b^2*k^3*m^3 - a^4*b^4*h^3*m^3 - a^2*b^6*f^3*m^3 - b^6*c^2 \\
& *d^3*k^3 - b^4*c^4*d^3*h^3 - b^2*c^6*d^3*f^3 - b^8*d^3*m^3 - a^6*c^2*k^6 - \\
& a^5*c^3*j^6 - a^4*c^4*h^6 - a^3*c^5*g^6 - a^2*c^6*f^6 - a^7*c*l^6 - a*c^7*e \\
& ^6 - a^8*m^6 - c^8*d^6, z, k1)*(243*a*b^5*c^6 + 3888*a^3*b*c^8 - 1944*a^2*b \\
& ^3*c^7)/c^3 + (x*(81*b^5*c^6*d - 1296*a^3*c^8*g + 648*a^2*b^2*c^7*g - 648* \\
& a*b^3*c^7*d + 1296*a^2*b*c^8*d - 81*a*b^4*c^6*g))/c^3 + (216*a^2*b*c^7*f^2 \\
& - 54*a*b^3*c^6*f^2 + 81*a*b^5*c^4*j^2 + 1512*a^3*b*c^6*j^2 + 81*a*b^7*c^2* \\
& m^2 - 648*a^4*b*c^5*m^2 - 702*a^2*b^3*c^5*j^2 - 702*a^2*b^5*c^3*m^2 + 1674* \\
& a^3*b^3*c^4*m^2 - 432*a^2*c^8*d*e + 27*b^4*c^6*d*e + 432*a^3*c^7*g*h + 432* \\
& a^3*c^7*d*l + 432*a^3*c^7*e*k - 864*a^3*c^7*f*j + 864*a^4*c^6*j*m - 432*a^4 \\
& *c^6*k*l - 108*a*b^3*c^6*d*h - 108*a*b^3*c^6*e*g + 432*a^2*b*c^7*d*h + 432* \\
& a^2*b*c^7*e*g + 81*a*b^4*c^5*g*h + 81*a*b^4*c^5*d*l + 81*a*b^4*c^5*e*k - 81 \\
& *a*b^5*c^4*g*l - 81*a*b^5*c^4*h*k + 432*a^3*b*c^6*f*m - 864*a^3*b*c^6*g*l - \\
& 864*a^3*b*c^6*h*k - 162*a*b^6*c^3*j*m + 81*a*b^6*c^3*k*l - 432*a^2*b^2*c^6 \\
& *g*h - 432*a^2*b^2*c^6*d*l - 432*a^2*b^2*c^6*e*k + 216*a^2*b^2*c^6*f*j - 10 \\
& 8*a^2*b^3*c^5*f*m + 540*a^2*b^3*c^5*g*l + 540*a^2*b^3*c^5*h*k + 1404*a^2*b^ \\
& 4*c^4*j*m - 621*a^2*b^4*c^4*k*l - 3240*a^3*b^2*c^5*j*m + 1296*a^3*b^2*c^5*k \\
& *l)/c^3 + (x*(216*a^2*c^8*e^2 + 27*b^4*c^6*e^2 - 216*a^3*c^7*h^2 + 216*a^4* \\
& c^6*l^2 - 162*a*b^2*c^7*e^2 + 54*a^2*b^2*c^6*h^2 + 27*a^2*b^4*c^4*l^2 - 162 \\
& *a^3*b^2*c^5*l^2 + 432*a^2*c^8*d*f + 54*b^4*c^6*d*f - 81*b^5*c^5*d*j - 432*
\end{aligned}$$

$$\begin{aligned}
& a^3c^7d^m - 432a^3c^7e^1 - 432a^3c^7f^*k + 864a^3c^7g^*j + 81b^6c^4d^m + 432a^4c^6k^*m - 324a^*b^2c^7d^*f - 54a^*b^3c^6e^*h - 54a^*b^3c^6f^*g + 216a^2b^*c^7e^*h + 216a^2b^*c^7f^*g + 594a^*b^3c^6d^*j - 1080a^2b^*c^7d^*j - 648a^*b^4c^5d^*m + 81a^*b^4c^5g^*j - 81a^*b^5c^4g^*m - 1080a^3b^*c^6g^*m + 216a^3b^*c^6h^*1 + 216a^3b^*c^6j^*k + 1404a^2b^2c^6d^*m + 108a^2b^2c^6e^*1 + 108a^2b^2c^6f^*k - 540a^2b^2c^6g^*j + 594a^2b^3c^5g^*m - 54a^2b^3c^5h^*1 - 54a^2b^3c^5j^*k + 54a^2b^4c^4k^*m - 324a^3b^2c^5k^*m)/c^3 + (36a^*c^8d^3 + 9a^*b^8m^3 - 9b^2c^7d^3 + 72a^2c^7f^3 + 36a^3c^6h^3 - 36a^4c^5k^3 - 72a^5c^4m^3 - 18a^*b^2c^6f^3 - 9a^*b^3c^5g^3 + 36a^2b^*c^6g^3 + 9a^*b^4c^4h^3 - 108a^2c^7d^*g^2 - 9a^*b^5c^3j^3 - 288a^3b^*c^5j^3 + 9a^*b^6c^2k^3 - 108a^2c^7e^2h + 108a^4b^*c^4l^3 - 81a^2b^6c^*m^3 - 108a^2c^7d^2k + 108a^3c^6d^*k^2 + 216a^3c^6f^*j^2 + 108a^3c^6g^2k - 216a^3c^6f^2m + 216a^4c^5f^*m^2 - 108a^4c^5h^*1^2 - 216a^4c^5j^2m - 45a^2b^2c^5h^3 + 108a^2b^3c^4j^3 - 63a^2b^4c^3k^3 + 117a^3b^2c^4k^3 + 72a^2b^5c^2l^3 - 171a^3b^3c^3l^3 + 180a^3b^4c^2m^3 + 18a^4b^2c^3m^3 - 9a^*b^7c^*l^3 + 27b^3c^6d^*e^*f + 216a^2c^7d^*e^*j - 27b^4c^5d^*e^*j + 27b^5c^4d^*e^*m - 27a^*b^7c^*j^*m^2 + 216a^3c^6e^*h^*1 - 216a^3c^6g^*h^*j - 216a^3c^6d^*j^*1 - 216a^3c^6e^*j^*k + 216a^4c^5j^*k^*1 + 27a^*b^2c^6d^*g^2 + 27a^*b^2c^6e^2h - 27a^*b^3c^5e^*h^2 + 108a^2b^*c^6e^*h^2 + 27a^*b^2c^6d^2k + 27a^*b^4c^4d^*k^2 + 54a^*b^3c^5f^2j - 27a^*b^4c^4f^*j^2 - 216a^2b^*c^6f^2j - 27a^*b^3c^5e^21 - 27a^*b^5c^3e^*1^2 + 108a^2b^*c^6e^21 - 216a^3b^*c^5e^*1^2 + 27a^*b^4c^4g^2k - 27a^*b^5c^3g^*k^2 - 216a^3b^*c^5g^*k^2 - 54a^*b^4c^4f^2m - 27a^*b^6c^2f^*m^2 - 27a^*b^5c^3h^21 + 27a^*b^6c^2h^*1^2 - 216a^3b^*c^5h^21 + 27a^*b^6c^2j^2m + 216a^4b^*c^4j^*m^2 - 135a^2b^2c^5d^*k^2 + 54a^2b^2c^5f^*j^2 + 162a^2b^3c^4e^*1^2 - 135a^2b^2c^5g^2k + 162a^2b^3c^4g^*k^2 + 270a^2b^2c^5f^2m + 162a^2b^4c^3f^*m^2 - 270a^3b^2c^4f^*m^2 + 162a^2b^3c^4h^21 - 189a^2b^4c^3h^*1^2 + 351a^3b^2c^4h^*1^2 - 297a^2b^4c^3j^2m + 270a^2b^5c^2j^*m^2 + 810a^3b^2c^4j^2m - 702a^3b^3c^3j^*m^2 - 108a^*b^*c^7d^*e^*f + 27a^*b^7c^*k^*1^*m + 54a^*b^2c^6d^*e^*j - 27a^*b^3c^5f^*g^*h + 108a^2b^*c^6f^*g^*h - 81a^*b^3c^5d^*e^*m - 27a^*b^3c^5d^*f^*1 - 54a^*b^3c^5d^*g^*k + 54a^*b^3c^5d^*h^*j - 27a^*b^3c^5e^*f^*k + 54a^*b^3c^5e^*g^*j - 108a^2b^*c^6d^*e^*m + 108a^2b^*c^6d^*f^*1 + 216a^2b^*c^6d^*g^*k - 216a^2b^*c^6d^*h^*j + 108a^2b^*c^6e^*f^*k - 216a^2b^*c^6e^*g^*j - 54a^*b^4c^4d^*h^*m - 54a^*b^4c^4e^*g^*m + 54a^*b^4c^4e^*h^*1 + 27a^*b^4c^4f^*g^*1 + 27a^*b^4c^4f^*h^*k - 27a^*b^4c^4g^*h^*j - 27a^*b^4c^4d^*j^*1 - 27a^*b^4c^4e^*j^*k + 27a^*b^5c^3g^*h^*m + 108a^3b^*c^5g^*h^*m + 27a^*b^5c^3d^*1^*m + 27a^*b^5c^3e^*k^*m + 54a^*b^5c^3f^*j^*m - 27a^*b^5c^3f^*k^*1 + 27a^*b^5c^3g^*j^*1 + 27a^*b^5c^3h^*j^*k + 108a^3b^*c^5d^*1^*m + 108a^3b^*c^5e^*k^*m - 108a^3b^*c^5f^*k^*1 + 432a^3b^*c^5g^*j^*1 + 432a^3b^*c^5h^*j^*k - 27a^*b^6c^2g^*1^*m - 27a^*b^6c^2h^*k^*m - 27a^*b^6c^2j^*k^*1 - 108a^4b^*c^4k^*1^*m + 216a^2b^2c^5d^*h^*m + 216a^2b^2c^5e^*g^*m - 270a^2b^2c^5e^*h^*1 - 108a^2b^2c^5f^*g^*1 - 108a^2b^2c^5f^*h^*k + 162a^2b^2c^5g^*h^*j + 162a^2b^2c^5d^*j^*1 + 162a^2b^2c^5e^*j^*k - 135a^2b^3c^4g^*h^*m - 135a^2b^3c^4d^*1^*m - 135a^2b^3c^4e^*k^*m - 216a^2b^3c^4f^*j^*m + 135a^2b^3c^4f^*k^*1 - 216a^2b^3c^4g^*j^*1 - 216a^2b^3c^4h^*j^*k + 189a^2b^4c^3g^*1^*m + 189a^2b^4c^3h^*k^*m - 324a^3b^2c^4g^*1^*m - 324a^3b^2c^4h^*k^*m + 243a^2b^4c^3j^*k^*1 - 594a^3b^2c^4j^*k^*1 - 216a^2b^5c^2k^*1^*m + 459a^3b^3c^3k^*1^*m)/c^3 + (x*(27b^2c^7d^2e - 108a^2c^7e^*g^2 + 27b^3c^6e^2f - 27b^3c^6d^2h - 108a^2c^7e^2j + 27b^5c^4d^*j^2 + 108a^2c^7d^21 - 108a^3c^6e^*k^2 - 27b^4c^5e^2j - 216a^3c^6g^*j^2 + 27b^4c^5d^21 + 108a^3c^6h^2j + 27b^7c^2d^*m^2 + 108a^3c^6g^21 + 27b^5c^4e^2m - 108a^4c^5j^*1^2 + 108a^4c^5k^21 - 108a^*c^8d^2e - 108a^*b^*c^7e^2f + 108a^*b^*c^7d^2h - 27b^3c^6d^*e^*g + 216a^2c^7e^*f^*h + 216a^2c^7d^*e^*k - 216a^2c^7d^*f^*j + 27b^4c^5d^*g^*h + 27b^4c^5d^*e^*k - 27b^4c^5d^*f^*j + 27b^5c^4d^*f^*m - 27b^5c^4d^*g^*1 - 27b^5c^4d^*h^*k - 216a^3c^6e^*h^*m - 216a^3c^6f^*h^*1 + 216a^3c^6d^*j^*m - 216a^3c^6d^*k^*1 + 216a^3c^6e^*j^*1 + 216a^3c^
\end{aligned}$$

$$\begin{aligned}
& c^6*f*j*k - 54*b^6*c^3*d*j*m + 27*b^6*c^3*d*k*1 + 216*a^4*c^5*h*1*m - 216*a^4*c^5*j*k*m + 27*a*b^2*c^6*e*g^2 - 189*a*b^3*c^5*d*j^2 + 324*a^2*b*c^6*d*j^2 + 135*a*b^2*c^6*e^2*j - 27*a*b^3*c^5*g^2*h + 108*a^2*b*c^6*g^2*h - 135*a*b^2*c^6*d^2*1 - 27*a*b^4*c^4*g*j^2 - 216*a*b^5*c^3*d*m^2 - 216*a^3*b*c^5*d*m^2 - 162*a*b^3*c^5*e^2*m + 216*a^2*b*c^6*e^2*m + 108*a^3*b*c^5*f*1^2 + 27*a*b^4*c^4*g^2*1 + 108*a^3*b*c^5*h*k^2 - 27*a*b^6*c^2*g*m^2 - 108*a^3*b*c^5*h^2*m - 108*a^3*b*c^5*j^2*k + 216*a^4*b*c^4*k*m^2 + 27*a^2*b^2*c^5*e*k^2 + 162*a^2*b^2*c^5*g*j^2 + 486*a^2*b^3*c^4*d*m^2 - 27*a^2*b^2*c^5*h^2*j - 27*a^2*b^3*c^4*f*1^2 - 135*a^2*b^2*c^5*g^2*1 - 27*a^2*b^3*c^4*h*k^2 + 189*a^2*b^4*c^3*g*m^2 - 324*a^3*b^2*c^4*g*m^2 + 27*a^2*b^3*c^4*h^2*m + 27*a^2*b^3*c^4*j^2*k + 27*a^3*b^2*c^4*j*1^2 + 27*a^2*b^4*c^3*k^2*1 - 135*a^3*b^2*c^4*k^2*1 + 27*a^2*b^5*c^2*k*m^2 - 162*a^3*b^3*c^3*k*m^2 + 108*a*b*c^7*d*e*g - 108*a*b^2*c^6*d*g*h - 54*a*b^2*c^6*e*f*h - 162*a*b^2*c^6*d*e*k + 162*a*b^2*c^6*d*f*j - 162*a*b^3*c^5*d*f*m + 135*a*b^3*c^5*d*g*1 + 162*a*b^3*c^5*d*h*k - 27*a*b^3*c^5*e*g*k + 54*a*b^3*c^5*e*h*j + 27*a*b^3*c^5*f*g*j + 216*a^2*b*c^6*d*f*m - 108*a^2*b*c^6*d*g*1 - 216*a^2*b*c^6*d*h*k + 108*a^2*b*c^6*e*g*k - 216*a^2*b*c^6*e*h*j - 108*a^2*b*c^6*f*g*j - 54*a*b^4*c^4*e*h*m - 27*a*b^4*c^4*f*g*m + 27*a*b^4*c^4*g*h*k + 405*a*b^4*c^4*d*j*m - 189*a*b^4*c^4*d*k*1 + 54*a*b^5*c^3*g*j*m - 27*a*b^5*c^3*g*k*1 - 216*a^3*b*c^5*e*1*m - 216*a^3*b*c^5*f*k*m + 540*a^3*b*c^5*g*j*m - 108*a^3*b*c^5*g*k*1 + 270*a^2*b^2*c^5*e*h*m + 108*a^2*b^2*c^5*f*g*m + 54*a^2*b^2*c^5*f*h*1 - 108*a^2*b^2*c^5*g*h*k - 810*a^2*b^2*c^5*d*j*m + 378*a^2*b^2*c^5*d*k*1 - 54*a^2*b^2*c^5*e*j*1 - 54*a^2*b^2*c^5*f*j*k + 54*a^2*b^3*c^4*e*1*m + 54*a^2*b^3*c^4*f*k*m - 351*a^2*b^3*c^4*g*j*m + 135*a^2*b^3*c^4*g*k*1 - 54*a^3*b^2*c^4*h*1*m - 54*a^2*b^4*c^3*j*k*m + 270*a^3*b^2*c^4*j*k*m)/c^3) - (6*a^3*b^5*m^4 - 9*b*c^7*d^2*e^2 - 27*a^3*b*c^4*j^4 + 12*a^2*c^6*f*g^3 - 30*a^4*b^3*c*m^4 + 21*a^5*b*c^2*m^4 - 6*b^2*c^6*d^3*j + 24*a^2*c^6*f^3*j + 24*a^3*c^5*f*j^3 + 12*a^2*c^6*e^3*m + 12*a^3*c^5*h^3*j + 12*a^4*c^4*f*1^3 + 6*b^3*c^5*d^3*m - 12*a^3*c^5*g^3*m - 12*a^4*c^4*j*k^3 - 6*a^2*b^6*j*m^3 - 24*a^4*c^4*j^3*m - 24*a^5*c^3*j*m^3 - 12*a^5*c^3*1^3*m + 6*a^2*b^3*c^3*j^4 - 3*a*b*c^6*f^4 - 12*a*c^7*e^3*f + 6*b*c^7*d^3*f + 12*a*c^7*d^3*j + 6*a*b^7*f*m^3 + 36*a*c^7*d*e*f^2 + 6*a*b*c^6*e^3*j - 36*a*c^7*d^2*f*g - 18*a*b*c^6*d^3*m - 6*a*b^6*c*f*1^3 - 54*a^2*b^3*c^3*f^2*m^2 - 81*a^3*b^3*c^2*j^2*m^2 - 9*a*b*c^6*d^2*h^2 - 9*a*b*c^6*e^2*g^2 - 6*a*b^2*c^5*f*g^3 + 6*a*b^3*c^4*f*h^3 - 18*a^2*b*c^5*f*h^3 - 9*b^2*c^6*d*e*f^2 + 9*b^2*c^6*d*e^2*g - 6*a*b^4*c^3*f*j^3 + 9*b^2*c^6*d^2*e*h + 6*a*b^5*c^2*f*k^3 + 6*a^2*b*c^5*g^3*j + 36*a^2*c^6*d*e*j^2 + 36*a^2*c^6*e*f*h^2 + 30*a^3*b*c^4*f*k^3 - 6*a*b^2*c^5*e^3*m - 9*b^4*c^4*d*e*j^2 - 12*a^2*b*c^5*f^3*m - 42*a^2*b^5*c*f*m^3 - 36*a^2*c^6*d*g^2*j - 36*a^2*c^6*f^2*g*h - 60*a^4*b*c^3*f*m^3 - 9*b^3*c^5*d*e^2*k - 36*a^2*c^6*d*f^2*1 - 36*a^2*c^6*e*f^2*k + 36*a^3*c^5*d*e*m^2 - 9*b^3*c^5*d^2*e*1 + 36*a^2*c^6*e^2*f*1 - 36*a^2*c^6*e^2*h*j + 6*a^3*b*c^4*h^3*m - 36*a^3*c^5*e*f*1^2 - 9*b^6*c^2*d*e*m^2 + 6*a^2*b^5*c*j*1^3 + 36*a^2*c^6*d^2*g*m - 36*a^3*c^5*f*g*k^2 + 30*a^4*b*c^3*j*1^3 - 36*a^2*c^6*d^2*j*k + 18*a^3*b^4*c*j*m^3 + 36*a^3*c^5*d*j*k^2 - 36*a^3*c^5*g*h*j^2 - 36*a^3*c^5*d*j^2*1 - 36*a^3*c^5*e*h^2*m - 36*a^3*c^5*e*j^2*k - 36*a^3*c^5*f*h^2*1 - 18*a^4*b*c^3*k^3*m - 6*a^3*b^4*c*1^3*m + 36*a^3*c^5*g^2*j*k - 36*a^4*c^4*g*h*m^2 - 72*a^3*c^5*f^2*j*m + 36*a^3*c^5*f^2*k*1 - 36*a^4*c^4*d*1*m^2 - 36*a^4*c^4*e*k*m^2 + 72*a^4*c^4*f*j*m^2 - 36*a^3*c^5*e^2*1*m + 36*a^4*c^4*e*1^2*m - 36*a^4*c^4*h*j*1^2 + 36*a^4*c^4*g*k^2*m + 36*a^4*c^4*h^2*1*m + 36*a^4*c^4*j^2*k*1 + 36*a^5*c^3*k*1*m^2 - 9*a^2*b*c^5*g^2*h^2 + 9*a*b^3*c^4*f^2*j^2 - 9*a^2*b*c^5*d^2*1^2 - 9*a^2*b*c^5*e^2*k^2 - 54*a^2*b*c^5*f^2*j^2 + 24*a^2*b^2*c^4*f*j^3 - 30*a^2*b^3*c^3*f*k^3 - 6*a^2*b^2*c^4*h^3*j + 36*a^2*b^4*c^2*f*1^3 - 54*a^3*b^2*c^3*f*1^3 + 9*a*b^5*c^2*f^2*m^2 + 54*a^3*b*c^4*f^2*m^2 - 9*a^3*b*c^4*g^2*1^2 - 9*a^3*b*c^4*h^2*k^2 + 84*a^3*b^3*c^2*f*m^3 - 6*a^2*b^4*c^2*j*k^3 + 24*a^3*b^2*c^3*j*k^3 - 30*a^3*b^3*c^2*j*1^3 - 18*a^2*b^4*c^2*j^3*m + 18*a^2*b^5*c*j^2*m^2 + 84*a^3*b^2*c^3*j^3*m + 18*a^4*b*c^3*j^2*m^2 - 9*a^4*b*c^3*k^2*1^2 + 36*a^4*b^2*c^2*j*m^3 + 6*a^3*b^3*c^2*k^3*m + 24*a^4*b^2*c^2*1^3*m - 45*a^2*b^2*c^4*d*e*m^2 + 9*a^2*b^2*c^4*d*g*1^2 + 72*a^2*b^2*c^4*e*f*1^2 + 9*a^2*b^2*c^4*e*h*k^2 + 72*a^2*b^2*c^4*f*g*k^2 - 18*a^2*b^2*c^4*d*j*k^2 + 9*a^2*b^2*c^4*g*h*j^2 - 36
\end{aligned}$$

$$\begin{aligned}
& *a^2*b^3*c^3*d*h*m^2 - 36*a^2*b^3*c^3*e*g*m^2 + 9*a^2*b^2*c^4*d*j^2*1 + 9*a^2*b^2*c^4*e*j^2*k + 72*a^2*b^2*c^4*f*h^2*1 + 9*a^2*b^2*c^4*g*h^2*k - 90*a^2*b^3*c^3*f*h*1^2 + 9*a^2*b^2*c^4*g^2*h*1 - 9*a^2*b^3*c^3*d*k*1^2 + 18*a^2*b^3*c^3*e*j*1^2 - 18*a^2*b^2*c^4*g^2*j*k - 9*a^2*b^3*c^3*e*k^2*1 + 18*a^2*b^3*c^3*g*j*k^2 - 9*a^2*b^4*c^2*g*h*m^2 + 45*a^3*b^2*c^3*g*h*m^2 + 108*a^2*b^2*c^4*f^2*j*m - 45*a^2*b^2*c^4*f^2*k*1 - 90*a^2*b^3*c^3*f*j^2*m - 18*a^2*b^3*c^3*g*j^2*1 - 18*a^2*b^3*c^3*h*j^2*k - 9*a^2*b^4*c^2*d*1*m^2 - 9*a^2*b^4*c^2*e*k*m^2 + 108*a^2*b^4*c^2*f*j*m^2 + 45*a^3*b^2*c^3*d*1*m^2 + 45*a^3*b^2*c^3*e*k*m^2 - 144*a^3*b^2*c^3*f*j*m^2 + 18*a^2*b^3*c^3*h^2*j*1 - 18*a^2*b^4*c^2*h*j*1^2 - 18*a^3*b^2*c^3*e*1^2*m + 9*a^3*b^2*c^3*g*k*1^2 + 72*a^3*b^2*c^3*h*j*1^2 - 18*a^3*b^2*c^3*g*k^2*m + 9*a^3*b^2*c^3*h*k^2*1 - 9*a^3*b^3*c^2*g*1*m^2 - 9*a^3*b^3*c^2*h*k*m^2 + 18*a^2*b^4*c^2*j^2*k*1 - 18*a^3*b^2*c^3*h^2*1*m - 81*a^3*b^2*c^3*j^2*k*1 + 18*a^3*b^3*c^2*h*1^2*m - 81*a^4*b^2*c^2*k*1*m^2 + 18*a*b*c^6*d*f*g^2 + 18*a*b*c^6*e^2*f*h + 18*a*b*c^6*d*e^2*k + 18*a*b*c^6*d^2*e*1 + 18*a*b*c^6*d^2*f*k + 18*a*b*c^6*d^2*g*j - 9*b^3*c^5*d*e*g*h + 18*b^3*c^5*d*e*f*j - 72*a^2*c^6*d*e*f*m + 72*a^2*c^6*d*f*g*k - 18*b^4*c^4*d*e*f*m + 9*b^4*c^4*d*e*g*1 + 9*b^4*c^4*d*e*h*k - 18*a*b^6*c*f*j*m^2 + 18*b^5*c^3*d*e*j*m - 9*b^5*c^3*d*e*k*1 + 72*a^3*c^5*f*g*h*m + 72*a^3*c^5*d*f*1*m - 72*a^3*c^5*d*g*k*m + 72*a^3*c^5*e*f*k*m + 72*a^3*c^5*e*h*j*1 - 72*a^4*c^4*f*k*1*m + 27*a*b^2*c^5*d*e*j^2 + 9*a*b^2*c^5*d*g*h^2 - 18*a*b^2*c^5*e*f*h^2 + 9*a*b^2*c^5*e*g^2*h + 9*a*b^2*c^5*f^2*g*h + 18*a*b^3*c^4*d*f*k^2 - 54*a^2*b*c^5*d*f*k^2 + 9*a*b^2*c^5*d*f^2*1 + 9*a*b^2*c^5*e*f^2*k + 9*a*b^3*c^4*d*h*j^2 + 9*a*b^3*c^4*e*g*j^2 + 45*a*b^4*c^3*d*e*m^2 - 36*a^2*b*c^5*d*h*j^2 - 36*a^2*b*c^5*e*g*j^2 - 18*a*b^2*c^5*e^2*f*1 + 9*a*b^2*c^5*e^2*g*k - 9*a*b^3*c^4*d*h^2*k - 18*a*b^4*c^3*e*f*1^2 + 18*a^2*b*c^5*d*h^2*k + 18*a^2*b*c^5*e*h^2*j - 18*a*b^2*c^5*d^2*g*m + 9*a*b^2*c^5*d^2*h*1 - 9*a*b^3*c^4*e*g^2*1 + 18*a*b^3*c^4*f*g^2*k - 18*a*b^4*c^3*f*g*k^2 + 18*a^2*b*c^5*d*g^2*m + 18*a^2*b*c^5*e*g^2*1 - 54*a^2*b*c^5*f*g^2*k - 9*a*b^3*c^4*f^2*g*1 - 9*a*b^3*c^4*f^2*h*k + 9*a*b^5*c^2*d*h*m^2 + 9*a*b^5*c^2*e*g*m^2 + 36*a^2*b*c^5*f^2*g*1 + 36*a^2*b*c^5*f^2*h*k - 18*a*b^4*c^3*f*h^2*1 + 18*a*b^5*c^2*f*h*1^2 + 18*a^2*b*c^5*e^2*h*m + 90*a^3*b*c^4*f*h*1^2 + 18*a^2*b*c^5*e^2*j*1 + 18*a^3*b*c^4*d*k*1^2 - 54*a^3*b*c^4*e*j*1^2 + 18*a^2*b*c^5*d^2*k*m + 18*a^3*b*c^4*d*k^2*m + 18*a^3*b*c^4*e*k^2*1 - 54*a^3*b*c^4*g*j*k^2 - 18*a*b^4*c^3*f^2*j*m + 9*a*b^4*c^3*f^2*k*1 + 18*a*b^5*c^2*f*j^2*m + 36*a^3*b*c^4*f*j^2*m + 72*a^3*b*c^4*g*j^2*1 + 72*a^3*b*c^4*h*j^2*k - 54*a^3*b*c^4*h^2*j*1 + 18*a^3*b*c^4*g^2*k*m + 36*a^4*b*c^3*g*1*m^2 + 36*a^4*b*c^3*h*k*m^2 - 54*a^4*b*c^3*h*1^2*m + 18*a^3*b^4*c*k*1*m^2 - 90*a^2*b^2*c^4*f*g*h*m - 90*a^2*b^2*c^4*d*f*1*m + 72*a^2*b^2*c^4*d*h*j*m - 18*a^2*b^2*c^4*d*h*k*1 - 90*a^2*b^2*c^4*e*f*k*m + 72*a^2*b^2*c^4*e*g*j*m - 18*a^2*b^2*c^4*e*g*k*1 - 36*a^2*b^2*c^4*e*h*j*1 - 72*a^2*b^2*c^4*f*g*j*1 - 72*a^2*b^2*c^4*f*h*j*k + 90*a^2*b^3*c^3*f*g*1*m + 90*a^2*b^3*c^3*f*h*k*m - 9*a^2*b^3*c^3*g*h*k*1 + 90*a^2*b^3*c^3*f*j*k*1 - 108*a^2*b^4*c^2*f*k*1*m + 18*a^2*b^4*c^2*g*j*1*m + 18*a^2*b^4*c^2*h*j*k*m + 162*a^3*b^2*c^3*f*k*1*m - 72*a^3*b^2*c^3*g*j*1*m - 72*a^3*b^2*c^3*h*j*k*m + 72*a^3*b^3*c^2*j*k*1*m - 72*a*b*c^6*d*e*f*j + 18*a*b^6*c*f*k*1*m + 90*a*b^2*c^5*d*e*f*m - 18*a*b^2*c^5*d*e*g*1 - 18*a*b^2*c^5*d*e*h*k - 36*a*b^2*c^5*d*f*g*k - 9*a*b^3*c^4*d*g*h*1 + 36*a*b^3*c^4*e*f*h*1 - 9*a*b^3*c^4*e*g*h*k - 18*a*b^3*c^4*f*g*h*j - 108*a^2*b*c^5*e*f*h*1 + 72*a^2*b*c^5*f*g*h*j - 72*a*b^3*c^4*d*e*j*m + 36*a*b^3*c^4*d*e*k*1 - 18*a*b^3*c^4*d*f*j*1 - 18*a*b^3*c^4*e*f*j*k - 36*a^2*b*c^5*d*e*k*1 + 72*a^2*b*c^5*d*f*j*1 + 36*a^2*b*c^5*d*g*j*k + 72*a^2*b*c^5*e*f*j*k + 18*a*b^4*c^3*f*g*h*m + 18*a*b^4*c^3*d*f*1*m - 18*a*b^4*c^3*d*h*j*m + 9*a*b^4*c^3*d*h*k*1 + 18*a*b^4*c^3*e*f*k*m - 18*a*b^4*c^3*e*g*j*m + 9*a*b^4*c^3*e*g*k*1 + 18*a*b^4*c^3*f*g*j*1 + 18*a*b^4*c^3*f*h*j*k - 18*a*b^5*c^2*f*g*1*m - 18*a*b^5*c^2*f*h*k*m + 36*a^3*b*c^4*e*h*1*m - 72*a^3*b*c^4*f*g*1*m - 72*a^3*b*c^4*f*h*k*m - 18*a*b^5*c^2*f*j*k*1 - 72*a^3*b*c^4*f*j*k*1 - 18*a^2*b^5*c*j*k*1*m)/c^3 + (x*(6*c^8*d^4 + 3*b^8*d*m^3 - 6*a^2*c^6*g^4 + 6*a^4*c^4*k^4 + 3*a*b^2*c^5*g^4 - 18*a*c^7*e^2*f^2 - 6*b^2*c^6*d*f^3 - 12*a^2*c^6*d*h^3 - 3*b^3*c^5*d*g^3 - 9*b^2*c^6*e^3*g + 3*b^4*c^4*d*h^3 - 24*a^3*c^5*d*k^3 - 3*b^5*c^3*d*j^3 + 12*b^2*c^6*d^3*k + 3*b^6*c^2*d*k^3 - 12*a^2*c^6*f^3*k + 24*a^3*c^5*g*j^3 - 12*a^4*
\end{aligned}$$

$$\begin{aligned}
& c^4 d^3 m^3 + 9 b^3 c^5 e^3 k + 12 a^3 c^5 h^3 k - 24 a^4 c^4 g^3 l^3 + 3 a^2 b^6 k^3 m^3 + 12 a^5 c^3 k^3 m^3 + 9 b^2 c^6 d^2 g^2 + 9 b^2 c^6 e^2 f^2 + 3 a^2 b^4 c^2 k^4 - 12 a^3 b^2 c^3 k^4 + 18 a^2 c^6 f^2 h^2 + 36 a^2 c^6 d^2 k^2 + 18 a^2 c^6 e^2 j^2 + 9 b^4 c^4 d^2 k^2 + 9 b^4 c^4 e^2 j^2 - 18 a^3 c^5 e^2 m^2 - 18 a^3 c^5 f^2 l^2 - 18 a^3 c^5 h^2 j^2 + 9 b^6 c^2 e^2 m^2 + 18 a^4 c^4 h^2 m^2 + 18 a^4 c^4 j^2 l^2 - 18 a^5 c^3 l^2 m^2 + 12 a^7 d^3 f^3 + 6 b^7 c^3 d^3 e^3 + 24 a^7 e^3 g^3 - 12 b^7 c^3 d^3 g^3 - 24 a^7 c^3 d^3 k^3 - 3 b^7 c^3 d^3 l^3 - 3 a^7 b^3 g^3 m^3 + 6 a^7 b^3 c^3 f^3 g^3 - 36 a^7 c^3 d^3 e^3 h^3 - 30 a^7 b^3 c^3 e^3 k^3 - 24 a^7 b^3 c^3 d^3 m^3 + 36 a^7 c^3 d^3 e^3 j^3 + 3 a^7 b^3 c^3 g^3 l^3 - 9 b^7 c^3 d^3 j^3 m^2 + 81 a^2 b^2 c^4 e^2 m^2 + 9 a^2 b^2 c^4 f^2 l^2 - 27 a^2 b^2 c^4 g^2 k^2 + 9 a^2 b^2 c^4 h^2 j^2 + 9 a^2 b^4 c^2 h^2 m^2 - 36 a^3 b^2 c^3 h^2 m^2 + 9 a^4 b^2 c^2 l^2 m^2 - 12 a^3 b^2 c^5 d^3 h^3 + 24 a^3 b^3 c^4 d^3 j^3 - 42 a^2 b^3 c^5 d^3 j^3 - 3 a^3 b^3 c^4 g^3 h^3 - 18 a^3 b^4 c^3 d^3 k^3 + 18 a^2 b^3 c^5 g^3 h^3 + 21 a^3 b^5 c^2 d^3 l^3 + 30 a^3 b^3 c^4 d^3 l^3 - 9 b^3 c^5 d^3 e^3 h^2 + 3 a^3 b^4 c^3 g^3 j^3 - 9 a^3 b^3 c^4 g^3 k^3 - 3 a^3 b^5 c^2 g^3 k^3 + 24 a^2 b^3 c^5 g^3 k^3 + 36 a^2 c^6 d^3 f^3 j^2 + 12 a^3 b^3 c^4 g^3 k^3 - 9 b^2 c^6 d^2 e^3 j^2 + 9 b^3 c^5 d^3 f^2 j^2 + 9 b^3 c^5 e^2 g^3 h^3 + 21 a^2 b^5 c^3 g^3 m^3 + 36 a^2 c^6 e^3 g^2 j^2 - 6 a^4 b^3 c^3 g^3 m^3 - 18 b^3 c^5 e^2 f^3 j^2 - 9 b^5 c^3 d^3 e^3 l^2 - 36 a^2 c^6 d^3 f^2 m^2 + 36 a^2 c^6 e^3 f^2 l^2 + 18 a^3 b^3 c^4 j^3 k^3 + 36 a^3 c^5 d^3 f^3 m^2 + 9 b^3 c^5 d^2 e^3 m^2 - 18 b^3 c^5 d^2 g^3 k^3 + 9 b^3 c^5 d^2 h^3 j^2 + 9 b^4 c^4 d^3 g^2 k^3 - 9 b^5 c^3 d^3 g^3 k^2 + 36 a^2 c^6 e^2 f^3 m^2 - 72 a^2 c^6 e^2 g^3 l^2 + 36 a^2 c^6 e^2 h^3 k^3 - 36 a^3 c^5 d^3 h^3 l^2 + 72 a^3 c^5 e^3 g^3 l^2 - 9 b^4 c^4 d^3 f^2 m^2 - 3 a^2 b^5 c^3 k^3 l^3 - 6 a^4 b^3 c^3 k^3 l^3 + 18 b^4 c^4 e^2 f^3 m^2 - 9 b^4 c^4 e^2 g^3 l^2 - 9 b^4 c^4 e^2 h^3 k^3 - 9 b^5 c^3 d^3 h^2 l^2 + 9 b^6 c^2 d^3 h^3 l^2 - 36 a^2 c^6 d^2 j^3 l^2 - 18 a^3 b^4 c^3 k^3 m^3 + 36 a^3 c^5 e^3 j^3 k^2 - 9 b^4 c^4 d^2 h^3 m^2 - 36 a^3 c^5 d^3 j^2 m^2 - 36 a^3 c^5 e^3 j^2 l^2 - 36 a^3 c^5 f^3 h^2 m^2 - 36 a^3 c^5 f^3 j^2 k^2 - 9 b^4 c^4 d^2 j^3 l^2 + 9 b^6 c^2 d^3 j^2 m^2 - 36 a^3 c^5 g^2 j^3 l^2 - 18 b^5 c^3 e^2 j^3 m^2 + 9 b^5 c^3 e^2 k^3 l^2 + 36 a^3 c^5 f^2 k^3 m^2 + 36 a^4 c^4 e^3 l^3 m^2 - 36 a^4 c^4 f^3 k^3 m^2 + 9 b^5 c^3 d^2 l^3 m^2 + 36 a^4 c^4 f^3 l^2 m^2 + 36 a^4 c^4 h^3 k^3 l^2 - 36 a^4 c^4 j^3 k^2 l^2 + 36 a^4 c^4 j^2 k^3 m^2 - 36 a^3 b^2 c^5 d^2 k^2 - 36 a^3 b^2 c^5 e^2 j^2 + 36 a^2 b^2 c^4 d^3 k^3 - 42 a^2 b^3 c^3 d^3 l^3 - 21 a^2 b^2 c^4 g^3 j^3 + 51 a^2 b^4 c^2 d^3 m^3 - 12 a^3 b^2 c^3 d^3 m^3 - 54 a^3 b^4 c^3 e^2 m^2 + 9 a^3 b^4 c^3 g^2 k^2 + 6 a^2 b^3 c^3 g^3 k^3 - 6 a^2 b^2 c^4 h^3 k^3 - 18 a^2 b^4 c^2 g^3 l^3 + 27 a^3 b^2 c^3 g^3 l^3 - 33 a^3 b^3 c^2 g^3 m^3 - 3 a^2 b^3 c^3 j^3 k^3 + 15 a^3 b^3 c^2 k^3 l^3 + 18 a^4 b^2 c^2 k^3 m^3 + 9 b^7 c^3 d^3 k^3 l^3 m^2 - 18 a^2 b^2 c^4 d^3 f^3 m^2 + 72 a^2 b^2 c^4 d^3 h^3 l^2 - 63 a^2 b^2 c^4 e^3 g^3 l^2 - 9 a^2 b^2 c^4 e^3 j^3 k^2 + 90 a^2 b^3 c^3 e^3 h^3 m^2 + 144 a^2 b^2 c^4 d^3 j^2 m^2 + 18 a^2 b^2 c^4 e^3 j^2 l^2 + 18 a^2 b^2 c^4 f^3 h^2 m^2 - 45 a^2 b^2 c^4 g^3 h^2 l^2 - 153 a^2 b^3 c^3 d^3 j^3 m^2 + 45 a^2 b^3 c^3 g^3 h^3 l^2 + 36 a^2 b^2 c^4 g^2 h^3 m^2 + 9 a^2 b^3 c^3 e^3 k^3 l^2 + 45 a^2 b^2 c^4 g^2 j^3 l^2 + 9 a^2 b^3 c^3 e^3 k^2 m^2 + 9 a^2 b^3 c^3 h^3 j^3 k^2 - 18 a^2 b^2 c^4 f^2 k^3 m^2 + 63 a^2 b^3 c^3 g^3 j^2 m^2 + 18 a^2 b^4 c^2 e^3 l^3 m^2 - 63 a^2 b^4 c^2 g^3 j^3 m^2 - 72 a^3 b^2 c^3 e^3 l^3 m^2 + 99 a^3 b^2 c^3 g^3 j^3 m^2 - 18 a^2 b^3 c^3 h^2 j^3 m^2 + 9 a^2 b^4 c^2 h^3 k^3 l^2 - 54 a^3 b^2 c^3 h^3 k^3 l^2 - 45 a^2 b^3 c^3 g^2 l^3 m^2 - 9 a^2 b^4 c^2 h^3 k^2 m^2 + 36 a^3 b^2 c^3 h^3 k^2 m^2 - 9 a^2 b^4 c^2 j^3 k^2 l^2 + 45 a^3 b^2 c^3 j^3 k^2 l^2 - 18 a^3 b^3 c^2 h^3 l^3 m^2 + 9 a^2 b^4 c^2 j^2 k^3 m^2 - 54 a^3 b^2 c^3 j^2 k^3 m^2 + 54 a^3 b^3 c^2 j^3 k^3 m^2 - 45 a^3 b^3 c^2 k^2 l^3 m^2 + 54 a^3 b^3 c^2 d^3 e^3 h^2 - 18 a^3 b^3 c^2 e^3 f^2 h^2 - 18 a^3 b^3 c^2 d^3 f^2 j^2 - 18 a^3 b^3 c^2 e^2 g^3 h^2 + 18 a^3 b^3 c^2 d^3 e^2 l^2 + 54 a^3 b^3 c^2 e^2 f^2 j^2 - 36 a^3 b^3 c^2 d^2 e^3 m^2 + 36 a^3 b^3 c^2 d^2 g^3 k^2 - 36 a^3 b^3 c^2 d^2 h^3 j^2 + 9 b^3 c^5 d^3 e^3 g^3 j^2 + 72 a^2 c^6 d^3 e^3 h^3 l^2 - 72 a^2 c^6 e^3 f^3 h^3 j^2 - 72 a^2 c^6 d^3 e^3 j^3 k^2 - 9 b^4 c^4 d^3 e^3 g^3 m^2 + 18 b^4 c^4 d^3 e^3 h^3 l^2 - 9 b^4 c^4 d^3 g^3 h^3 j^2 - 9 b^4 c^4 d^3 e^3 j^3 k^2 + 9 a^3 b^6 c^3 g^3 j^3 m^2 + 9 b^5 c^3 d^3 g^3 h^3 m^2 + 9 b^5 c^3 d^3 e^3 k^3 m^2 + 9 b^5 c^3 d^3 g^3 j^3 l^2 + 9 b^5 c^3 d^3 h^3 j^3 k^2 - 72 a^3 c^5 e^3 f^3 l^3 m^2 + 72 a^3 c^5 e^3 h^3 j^3 m^2 - 72 a^3 c^5 e^3 h^3 k^3 l^2 + 72 a^3 c^5 f^3 h^3 j^3 l^2 + 72 a^3 c^5 d^3 j^3 k^3 l^2 - 9 b^6 c^2 d^3 g^3 l^3 m^2 - 9 b^6 c^2 d^3 h^3 k^3 m^2 - 9 b^6 c^2 d^3 j^3 k^3 l^2 - 72 a^4 c^4 h^3 j^3 l^3 m^2 - 18 a^3 b^2 c^5 d^3 f^3 j^2 - 9 a^3 b^2 c^5 e^3 g^3 h^2 + 54 a^3 b^3 c^4 d^3 e^3 l^2 - 54 a^2 b^3 c^5 d^3 e^3 l^2 - 18 a^3 b^2 c^5 d^3 g^2 k^2 - 9 a^3 b^2 c^5 e^3 g^2 j^2 + 36 a^3 b^3 c^4 d^3 g^3 k^2 - 36 a^2 b^3 c^5 d^3 g^3 k^2 + 36 a^3 b^2 c^5 d^3 f^2 m^2 - 9 a^3 b^2 c^5 f^2 g^3 j^2 - 18 a^3 b^3 c^4 e^3 h^3 j^2 + 54 a^2 b^3 c^5 e^3 h^3 j^2 + 18 a^2 b^3 c^5 f^3 g^3 j^2 - 72 a^
\end{aligned}$$

$$\begin{aligned}
& *b^2*c^5*e^2*f*m + 45*a*b^2*c^5*e^2*g*1 + 18*a*b^2*c^5*e^2*h*k + 45*a*b^3*c^4*d*h^2*1 + 18*a*b^3*c^4*e*h^2*k - 54*a*b^4*c^3*d*h*1^2 + 9*a*b^4*c^3*e*g*1^2 - 18*a^2*b*c^5*d*h^2*1 - 54*a^2*b*c^5*e*h^2*k - 18*a^2*b*c^5*f*h^2*j + 36*a*b^2*c^5*d^2*h*m + 9*a*b^3*c^4*e*g^2*m + 9*a*b^3*c^4*g^2*h*j - 36*a^2*b*c^5*e*g^2*m - 36*a^2*b*c^5*g^2*h*j + 45*a*b^2*c^5*d^2*j*1 + 9*a*b^3*c^4*f^2*g*m - 18*a*b^5*c^2*e*h*m^2 - 18*a^2*b*c^5*f^2*g*m - 18*a^2*b*c^5*f^2*h*1 - 90*a^3*b*c^4*e*h*m^2 + 18*a^3*b*c^4*f*g*m^2 - 72*a*b^4*c^3*d*j^2*m + 9*a*b^4*c^3*g*h^2*1 + 72*a*b^5*c^2*d*j*m^2 - 9*a*b^5*c^2*g*h*1^2 + 18*a^2*b*c^5*f^2*j*k + 54*a^3*b*c^4*d*j*m^2 - 18*a^3*b*c^4*g*h*1^2 + 90*a*b^3*c^4*e^2*j*m - 45*a*b^3*c^4*e^2*k*1 - 9*a*b^4*c^3*g^2*h*m - 90*a^2*b*c^5*e^2*j*m + 54*a^2*b*c^5*e^2*k*1 - 18*a^3*b*c^4*e*k*1^2 - 18*a^3*b*c^4*f*j*1^2 - 45*a*b^3*c^4*d^2*1*m - 9*a*b^4*c^3*g^2*j*1 + 36*a^2*b*c^5*d^2*1*m - 36*a^3*b*c^4*e*k^2*m - 36*a^3*b*c^4*h*j*k^2 - 9*a*b^5*c^2*g*j^2*m - 90*a^3*b*c^4*g*j^2*m - 18*a^3*b*c^4*h*j^2*1 + 54*a^3*b*c^4*h^2*j*m + 18*a^3*b*c^4*h^2*k*1 + 9*a*b^5*c^2*g^2*1*m + 36*a^3*b*c^4*g^2*1*m + 54*a^4*b*c^3*h*1*m^2 - 9*a^2*b^5*c*j*k*m^2 - 54*a^4*b*c^3*j*k*m^2 - 18*a^4*b*c^3*j*1^2*m + 9*a^2*b^5*c*k^2*1*m + 36*a^4*b*c^3*k^2*1*m - 36*a^2*b^2*c^4*d*g*1*m - 72*a^2*b^2*c^4*d*h*k*m + 36*a^2*b^2*c^4*e*f*1*m + 36*a^2*b^2*c^4*e*g*k*m - 144*a^2*b^2*c^4*e*h*j*m + 72*a^2*b^2*c^4*e*h*k*1 - 18*a^2*b^2*c^4*f*g*j*m + 36*a^2*b^2*c^4*g*h*j*k - 126*a^2*b^2*c^4*d*j*k*1 - 36*a^2*b^3*c^3*g*h*k*m + 126*a^2*b^3*c^3*d*k*1*m - 36*a^2*b^3*c^3*e*j*1*m - 45*a^2*b^3*c^3*g*j*k*1 + 45*a^2*b^4*c^2*g*k*1*m - 36*a^3*b^2*c^3*g*k*1*m + 36*a^3*b^2*c^3*h*j*1*m - 36*a*b*c^6*d*e*g*j - 9*a*b^6*c*g*k*1*m + 36*a*b^2*c^5*d*e*g*m - 108*a*b^2*c^5*d*e*h*1 + 36*a*b^2*c^5*d*g*h*j + 36*a*b^2*c^5*e*f*h*j + 54*a*b^2*c^5*d*e*j*k - 36*a*b^3*c^4*d*g*h*m - 36*a*b^3*c^4*e*f*h*m + 108*a^2*b*c^5*e*f*h*m + 36*a^2*b*c^5*e*g*h*1 - 54*a*b^3*c^4*d*e*k*m + 18*a*b^3*c^4*d*f*j*m - 45*a*b^3*c^4*d*g*j*1 - 54*a*b^3*c^4*d*h*j*k + 9*a*b^3*c^4*e*g*j*k + 72*a^2*b*c^5*d*e*k*m - 36*a^2*b*c^5*d*f*j*m + 36*a^2*b*c^5*d*g*j*1 + 72*a^2*b*c^5*d*h*j*k - 36*a^2*b*c^5*e*f*j*1 - 36*a^2*b*c^5*e*g*j*k + 45*a*b^4*c^3*d*g*1*m + 54*a*b^4*c^3*d*h*k*m - 9*a*b^4*c^3*e*g*k*m + 36*a*b^4*c^3*e*h*j*m - 18*a*b^4*c^3*e*h*k*1 - 9*a*b^4*c^3*g*h*j*k + 63*a*b^4*c^3*d*j*k*1 + 9*a*b^5*c^2*g*h*k*m - 36*a^3*b*c^4*f*h*1*m - 63*a*b^5*c^2*d*k*1*m + 9*a*b^5*c^2*g*j*k*1 - 72*a^3*b*c^4*d*k*1*m + 108*a^3*b*c^4*e*j*1*m + 36*a^3*b*c^4*f*j*k*m + 36*a^3*b*c^4*g*j*k*1))/c^3)*root(34992*a^4*b^2*c^8*z^6 - 8748*a^3*b^4*c^7*z^6 + 729*a^2*b^6*c^6*z^6 - 46656*a^5*c^9*z^6 + 34992*a^4*b^3*c^6*m*z^5 - 8748*a^3*b^5*c^5*m*z^5 + 729*a^2*b^7*c^4*m*z^5 - 34992*a^4*b^2*c^7*j*z^5 + 8748*a^3*b^4*c^6*j*z^5 - 729*a^2*b^6*c^5*j*z^5 - 46656*a^5*b*c^7*m*z^5 + 46656*a^5*c^8*j*z^5 + 34992*a^5*b*c^6*j*m*z^4 - 11664*a^5*b*c^6*k*1*z^4 + 3888*a^4*b*c^7*f*j*z^4 + 3888*a^4*b*c^7*e*k*z^4 + 3888*a^4*b*c^7*d*1*z^4 + 3888*a^4*b*c^7*g*h*z^4 + 3888*a^3*b*c^8*d*e*z^4 + 243*a*b^5*c^6*d*e*z^4 - 25272*a^4*b^3*c^5*j*m*z^4 + 9720*a^4*b^3*c^5*k*1*z^4 + 6075*a^3*b^5*c^4*j*m*z^4 - 2673*a^3*b^5*c^4*k*1*z^4 - 486*a^2*b^7*c^3*j*m*z^4 + 243*a^2*b^7*c^3*k*1*z^4 - 7776*a^4*b^2*c^6*h*k*z^4 - 7776*a^4*b^2*c^6*g*1*z^4 - 7776*a^4*b^2*c^6*f*m*z^4 + 2430*a^3*b^4*c^5*h*k*z^4 + 2430*a^3*b^4*c^5*g*1*z^4 + 2430*a^3*b^4*c^5*f*m*z^4 - 243*a^2*b^6*c^4*h*k*z^4 - 243*a^2*b^6*c^4*g*1*z^4 - 243*a^2*b^6*c^4*f*m*z^4 - 1944*a^3*b^3*c^6*f*j*z^4 - 1944*a^3*b^3*c^6*e*k*z^4 - 1944*a^3*b^3*c^6*d*1*z^4 + 243*a^2*b^5*c^5*f*j*z^4 + 243*a^2*b^5*c^5*e*k*z^4 + 243*a^2*b^5*c^5*d*1*z^4 - 1944*a^3*b^3*c^6*g*h*z^4 + 243*a^2*b^5*c^5*g*h*z^4 + 3888*a^3*b^2*c^7*e*g*z^4 + 3888*a^3*b^2*c^7*d*h*z^4 - 486*a^2*b^4*c^6*e*g*z^4 - 486*a^2*b^4*c^6*d*h*z^4 - 1944*a^2*b^3*c^7*d*e*z^4 + 7776*a^5*c^7*h*k*z^4 + 7776*a^5*c^7*g*1*z^4 + 7776*a^5*c^7*f*m*z^4 - 7776*a^4*c^8*e*g*z^4 - 7776*a^4*c^8*d*h*z^4 - 13608*a^5*b^2*c^5*m^2*z^4 + 11421*a^4*b^4*c^4*m^2*z^4 - 2916*a^3*b^6*c^3*m^2*z^4 + 243*a^2*b^8*c^2*m^2*z^4 + 13608*a^4*b^2*c^6*j^2*z^4 - 3159*a^3*b^4*c^5*j^2*z^4 + 243*a^2*b^6*c^4*j^2*z^4 + 1944*a^3*b^2*c^7*f^2*z^4 - 243*a^2*b^4*c^6*f^2*z^4 - 3888*a^6*c^6*m^2*z^4 - 19440*a^5*c^7*j^2*z^4 - 3888*a^4*c^8*f^2*z^4 + 3078*a^4*b^4*c^3*k*1*m*z^3 - 2592*a^5*b^2*c^4*k*1*m*z^3 - 891*a^3*b^6*c^2*k*1*m*z^3 - 4536*a^4*b^3*c^4*j*k*1*z^3 + 1053*a^3*b^5*c^3*j*k*1*z^3 - 81*a^2*b^7*c^2*j*k*1*z^3 - 2592*a^4*b^3*c^4*h*k*m*z^3 - 2592*a^4*b^3*c^4*g*1*m*z^3 + 810*a^3*b^5*c^3*h*k*m*z^3 + 810*a^3*b^5*c^3*g*1*m*z^3
\end{aligned}$$

$$\begin{aligned}
& 3 - 81a^2b^7c^2hk^2m^3z^3 - 81a^2b^7c^2g^2l^2m^3z^3 + 7776a^4b^2c^5f^2j^2m^3z^3 + 3888a^4b^2c^5h^2j^2k^2z^3 + 3888a^4b^2c^5g^2j^2l^2z^3 - 3888a^4b^2c^5f^2k^2l^2z^3 - 2916a^3b^4c^4f^2j^2m^3z^3 + 1458a^3b^4c^4f^2k^2l^2z^3 - 972a^3b^4c^4h^2j^2k^2z^3 - 972a^3b^4c^4g^2j^2l^2z^3 - 486a^3b^4c^4e^2k^2m^3z^3 - 486a^3b^4c^4d^2l^2m^3z^3 + 324a^2b^6c^3f^2j^2m^3z^3 - 162a^2b^6c^3f^2k^2l^2z^3 + 81a^2b^6c^3h^2j^2k^2z^3 + 81a^2b^6c^3g^2j^2l^2z^3 + 81a^2b^6c^3e^2k^2m^3z^3 + 81a^2b^6c^3d^2l^2m^3z^3 - 486a^3b^4c^4g^2h^2m^3z^3 + 81a^2b^6c^3g^2h^2m^3z^3 + 648a^3b^3c^5e^2j^2k^2z^3 + 648a^3b^3c^5d^2j^2l^2z^3 - 81a^2b^5c^4e^2j^2k^2z^3 - 81a^2b^5c^4d^2j^2l^2z^3 + 2592a^3b^3c^5e^2g^2m^3z^3 + 2592a^3b^3c^5d^2h^2m^3z^3 - 1296a^3b^3c^5f^2h^2k^2z^3 - 1296a^3b^3c^5f^2g^2l^2z^3 - 1296a^3b^3c^5e^2h^2l^2z^3 + 648a^3b^3c^5g^2h^2j^2z^3 - 324a^2b^5c^4e^2g^2m^3z^3 - 324a^2b^5c^4d^2h^2m^3z^3 + 162a^2b^5c^4f^2h^2k^2z^3 + 162a^2b^5c^4f^2g^2l^2z^3 + 162a^2b^5c^4e^2h^2l^2z^3 - 81a^2b^5c^4g^2h^2j^2z^3 + 5184a^3b^2c^6d^2e^2m^3z^3 - 2592a^3b^2c^6e^2g^2j^2z^3 - 2592a^3b^2c^6d^2h^2j^2z^3 - 2106a^2b^4c^5d^2e^2m^3z^3 + 1296a^3b^2c^6e^2f^2k^2z^3 + 1296a^3b^2c^6d^2g^2k^2z^3 + 1296a^3b^2c^6d^2f^2l^2z^3 + 324a^2b^4c^5e^2g^2j^2z^3 + 324a^2b^4c^5d^2h^2j^2z^3 - 162a^2b^4c^5e^2f^2k^2z^3 - 162a^2b^4c^5d^2g^2k^2z^3 - 162a^2b^4c^5d^2f^2l^2z^3 + 1296a^3b^2c^6f^2g^2h^2z^3 - 162a^2b^4c^5f^2g^2h^2z^3 + 1944a^2b^3c^6d^2e^2j^2z^3 - 1296a^2b^2c^7d^2e^2f^2z^3 + 81a^2b^8c^2k^2l^2m^3z^3 + 6480a^5b^2c^5j^2k^2l^2z^3 + 2592a^5b^2c^5h^2k^2m^3z^3 + 2592a^5b^2c^5g^2l^2m^3z^3 - 1296a^4b^2c^6e^2j^2k^2z^3 - 1296a^4b^2c^6d^2j^2l^2z^3 - 5184a^4b^2c^6e^2g^2m^3z^3 - 5184a^4b^2c^6d^2h^2m^3z^3 + 2592a^4b^2c^6f^2h^2k^2z^3 + 2592a^4b^2c^6f^2g^2l^2z^3 + 2592a^4b^2c^6e^2h^2l^2z^3 - 1296a^4b^2c^6g^2h^2j^2z^3 + 243a^2b^6c^4d^2e^2m^3z^3 - 3888a^3b^2c^7d^2e^2j^2z^3 - 243a^2b^5c^5d^2e^2j^2z^3 + 162a^2b^4c^6d^2e^2f^2z^3 - 2592a^6c^5k^2l^2m^3z^3 - 5184a^5c^6h^2j^2k^2z^3 - 5184a^5c^6g^2j^2l^2z^3 - 5184a^5c^6f^2j^2m^3z^3 + 2592a^5c^6f^2k^2l^2z^3 + 2592a^5c^6e^2k^2m^3z^3 + 2592a^5c^6d^2l^2m^3z^3 + 2592a^5c^6g^2h^2m^3z^3 + 5184a^4c^7e^2g^2j^2z^3 + 5184a^4c^7d^2h^2j^2z^3 - 2592a^4c^7e^2f^2k^2z^3 - 2592a^4c^7d^2g^2k^2z^3 - 2592a^4c^7d^2f^2l^2z^3 - 2592a^4c^7d^2e^2m^3z^3 - 2592a^4c^7f^2g^2h^2z^3 + 2592a^3c^8d^2e^2f^2z^3 + 6480a^5b^2c^4j^2m^2z^3 + 6480a^4b^3c^4j^2m^2z^3 - 5022a^4b^4c^3j^2m^2z^3 - 1296a^3b^5c^3j^2m^2z^3 + 1134a^3b^6c^2j^2m^2z^3 + 81a^2b^7c^2j^2m^2z^3 + 2592a^4b^3c^4h^2l^2z^3 - 1944a^4b^2c^5h^2l^2z^3 - 810a^3b^5c^3h^2l^2z^3 + 729a^3b^4c^4h^2l^2z^3 + 81a^2b^7c^2h^2l^2z^3 - 81a^2b^6c^3h^2l^2z^3 - 5184a^4b^3c^4f^2m^2z^3 + 1620a^3b^5c^3f^2m^2z^3 + 1296a^3b^3c^5f^2m^2z^3 - 162a^2b^7c^2f^2m^2z^3 - 162a^2b^5c^4f^2m^2z^3 - 1944a^4b^2c^5g^2k^2z^3 + 729a^3b^4c^4g^2k^2z^3 - 648a^3b^3c^5g^2k^2z^3 - 81a^2b^6c^3g^2k^2z^3 + 81a^2b^5c^4g^2k^2z^3 - 1944a^4b^2c^5e^2l^2z^3 + 729a^3b^4c^4e^2l^2z^3 + 648a^3b^2c^6e^2l^2z^3 - 81a^2b^6c^3e^2l^2z^3 - 81a^2b^4c^5e^2l^2z^3 + 1296a^3b^3c^5f^2j^2z^3 - 1296a^3b^2c^6f^2j^2z^3 - 162a^2b^5c^4f^2j^2z^3 + 162a^2b^4c^5f^2j^2z^3 - 648a^3b^3c^5d^2k^2z^3 + 81a^2b^5c^4d^2k^2z^3 + 648a^3b^2c^6e^2h^2z^3 - 81a^2b^4c^5e^2h^2z^3 - 648a^2b^2c^7d^2g^2z^3 - 10368a^5b^2c^5j^2m^3z^3 - 81a^2b^8c^2j^2m^3z^3 - 2592a^5b^2c^5h^2l^2z^3 + 5184a^5b^2c^5f^2m^2z^3 - 2592a^4b^2c^6f^2m^2z^3 + 1296a^4b^2c^6g^2k^2z^3 - 2592a^4b^2c^6f^2j^2z^3 + 1296a^4b^2c^6d^2k^2z^3 + 81a^2b^4c^6d^2g^2z^3 + 2592a^6c^5j^2m^2z^3 + 1296a^5c^6h^2l^2z^3 + 1296a^5c^6g^2k^2z^3 + 1296a^5c^6e^2l^2z^3 - 1296a^4c^7e^2l^2z^3 + 2592a^4c^7f^2j^2z^3 - 2592a^6b^2c^4m^3z^3 - 324a^3b^7c^2m^3z^3 - 27a^2b^8c^1^3z^3 - 1296a^4c^7e^2h^2z^3 - 864a^5b^2c^5k^3z^3 + 1296a^3c^8d^2g^2z^3 + 432a^4b^2c^6h^3z^3 + 27a^2b^4c^6e^3z^3 - 432a^2b^2c^8d^3z^3 + 216a^2b^3c^7d^3z^3 + 1134a^4b^5c^2m^3z^3 - 432a^5b^3c^3m^3z^3 + 1512a^5b^2c^4l^3z^3 - 1107a^4b^4c^3l^3z^3 + 297a^3b^6c^2l^3z^3 + 864a^4b^3c^4k^3z^3 - 270a^3b^5c^3k^3z^3 + 27a^2b^7c^2k^3z^3 - 2592a^4b^2c^5j^3z^3 + 486a^3b^4c^4j^3z^3 - 27a^2b^6c^3j^3z^3 - 216a^3b^3c^5h^3z^3 + 27a^2b^5c^4h^3z^3 + 216a^3b^2c^6g^3z^3 - 27a^2b^4c^5g^3z^3 - 216a^2b^2c^7e^3z^3 - 432a^6c^5l^3z^3 + 27a^2b^9m^3z^3 + 4320a^5c^6j^3z^3 - 4
\end{aligned}$$

$$\begin{aligned}
& 32*a^4*c^7*g^3*z^3 + 432*a^3*c^8*e^3*z^3 - 27*b^5*c^6*d^3*z^3 + 81*a^3*b^6* \\
& c*j*k*l*m*z^2 - 1296*a^5*b*c^4*h*j*k*m*z^2 - 1296*a^5*b*c^4*g*j*l*m*z^2 + 1 \\
& 296*a^5*b*c^4*f*k*l*m*z^2 - 81*a^2*b^7*c*f*k*l*m*z^2 + 2592*a^4*b*c^5*e*g*j \\
& *m*z^2 + 2592*a^4*b*c^5*d*h*j*m*z^2 - 1296*a^4*b*c^5*f*h*j*k*z^2 - 1296*a^4 \\
& *b*c^5*f*g*j*l*z^2 - 1296*a^4*b*c^5*e*f*k*m*z^2 - 1296*a^4*b*c^5*d*f*l*m*z^ \\
& 2 - 648*a^4*b*c^5*e*h*j*l*z^2 - 648*a^4*b*c^5*e*g*k*l*z^2 - 648*a^4*b*c^5*d \\
& *h*k*l*z^2 - 648*a^4*b*c^5*d*g*k*m*z^2 - 1296*a^4*b*c^5*f*g*h*m*z^2 - 162*a \\
& *b^6*c^3*d*e*j*m*z^2 + 81*a*b^6*c^3*d*e*k*l*z^2 + 1296*a^3*b*c^6*d*e*f*m*z^ \\
& 2 - 648*a^3*b*c^6*d*f*g*k*z^2 - 648*a^3*b*c^6*d*e*h*k*z^2 - 648*a^3*b*c^6*d \\
& *e*g*l*z^2 - 81*a*b^5*c^4*d*e*h*k*z^2 - 81*a*b^5*c^4*d*e*g*l*z^2 + 81*a*b^5 \\
& *c^4*d*e*f*m*z^2 - 81*a*b^4*c^5*d*e*f*j*z^2 + 81*a*b^4*c^5*d*e*g*h*z^2 + 64 \\
& 8*a^5*b^2*c^3*j*k*l*m*z^2 - 567*a^4*b^4*c^2*j*k*l*m*z^2 - 1944*a^4*b^3*c^3* \\
& f*k*l*m*z^2 + 729*a^3*b^5*c^2*f*k*l*m*z^2 + 648*a^4*b^3*c^3*h*j*k*m*z^2 + 6 \\
& 48*a^4*b^3*c^3*g*j*l*m*z^2 - 81*a^3*b^5*c^2*h*j*k*m*z^2 - 81*a^3*b^5*c^2*g* \\
& j*l*m*z^2 + 1944*a^4*b^2*c^4*f*j*k*l*z^2 - 729*a^3*b^4*c^3*f*j*k*l*z^2 + 64 \\
& 8*a^4*b^2*c^4*e*j*k*m*z^2 + 648*a^4*b^2*c^4*d*j*l*m*z^2 - 81*a^3*b^4*c^3*e* \\
& j*k*m*z^2 - 81*a^3*b^4*c^3*d*j*l*m*z^2 + 81*a^2*b^6*c^2*f*j*k*l*z^2 + 1296* \\
& a^4*b^2*c^4*f*h*k*m*z^2 + 1296*a^4*b^2*c^4*f*g*l*m*z^2 + 648*a^4*b^2*c^4*g* \\
& h*j*m*z^2 - 648*a^3*b^4*c^3*f*h*k*m*z^2 - 648*a^3*b^4*c^3*f*g*l*m*z^2 - 324 \\
& *a^4*b^2*c^4*g*h*k*l*z^2 - 324*a^4*b^2*c^4*e*h*l*m*z^2 + 81*a^3*b^4*c^3*g*h \\
& *k*l*z^2 - 81*a^3*b^4*c^3*g*h*j*m*z^2 + 81*a^2*b^6*c^2*f*h*k*m*z^2 + 81*a^2 \\
& *b^6*c^2*f*g*l*m*z^2 - 1296*a^3*b^3*c^4*e*g*j*m*z^2 - 1296*a^3*b^3*c^4*d*h* \\
& j*m*z^2 + 648*a^3*b^3*c^4*f*h*j*k*z^2 + 648*a^3*b^3*c^4*f*g*j*l*z^2 + 648*a \\
& ^3*b^3*c^4*e*f*k*m*z^2 + 648*a^3*b^3*c^4*d*f*l*m*z^2 + 486*a^3*b^3*c^4*e*g* \\
& k*l*z^2 + 486*a^3*b^3*c^4*d*h*k*l*z^2 + 162*a^3*b^3*c^4*e*h*j*l*z^2 + 162*a \\
& ^3*b^3*c^4*d*g*k*m*z^2 + 162*a^2*b^5*c^3*e*g*j*m*z^2 + 162*a^2*b^5*c^3*d*h* \\
& j*m*z^2 - 81*a^2*b^5*c^3*f*h*j*k*z^2 - 81*a^2*b^5*c^3*f*g*j*l*z^2 - 81*a^2* \\
& b^5*c^3*e*g*k*l*z^2 - 81*a^2*b^5*c^3*e*f*k*m*z^2 - 81*a^2*b^5*c^3*d*h*k*l*z \\
& ^2 - 81*a^2*b^5*c^3*d*f*l*m*z^2 + 648*a^3*b^3*c^4*f*g*h*m*z^2 - 81*a^2*b^5* \\
& c^3*f*g*h*m*z^2 - 3240*a^3*b^2*c^5*d*e*j*m*z^2 + 1620*a^3*b^2*c^5*d*e*k*l*z \\
& ^2 + 1377*a^2*b^4*c^4*d*e*j*m*z^2 - 648*a^3*b^2*c^5*e*f*j*k*z^2 - 648*a^3*b \\
& ^2*c^5*d*f*j*l*z^2 - 648*a^2*b^4*c^4*d*e*k*l*z^2 - 324*a^3*b^2*c^5*d*g*j*k* \\
& z^2 + 81*a^2*b^4*c^4*e*f*j*k*z^2 + 81*a^2*b^4*c^4*d*f*j*l*z^2 + 972*a^3*b^2 \\
& *c^5*e*f*h*l*z^2 - 648*a^3*b^2*c^5*f*g*h*j*z^2 - 324*a^3*b^2*c^5*e*g*h*k*z^ \\
& 2 - 324*a^3*b^2*c^5*d*g*h*l*z^2 - 162*a^2*b^4*c^4*e*f*h*l*z^2 + 81*a^2*b^4* \\
& c^4*f*g*h*j*z^2 + 81*a^2*b^4*c^4*e*g*h*k*z^2 + 81*a^2*b^4*c^4*d*g*h*l*z^2 - \\
& 648*a^2*b^3*c^5*d*e*f*m*z^2 + 486*a^2*b^3*c^5*d*e*h*k*z^2 + 486*a^2*b^3*c^ \\
& 5*d*e*g*l*z^2 + 162*a^2*b^3*c^5*d*f*g*k*z^2 + 648*a^2*b^2*c^6*d*e*f*j*z^2 - \\
& 324*a^2*b^2*c^6*d*e*g*h*z^2 - 1296*a^6*b*c^3*k*l*m^2*z^2 - 81*a^4*b^5*c*k* \\
& l*m^2*z^2 - 1296*a^5*b*c^4*j^2*k*l*z^2 - 324*a^5*b*c^4*h^2*l*m*z^2 + 324*a^ \\
& 5*b*c^4*h*k^2*l*z^2 - 324*a^5*b*c^4*g*k^2*m*z^2 + 972*a^5*b*c^4*h*j*l^2*z^2 \\
& + 324*a^5*b*c^4*g*k*l^2*z^2 - 324*a^5*b*c^4*e*l^2*m*z^2 - 324*a^4*b*c^5*e^ \\
& 2*l*m*z^2 - 1944*a^5*b*c^4*f*j*m^2*z^2 + 1296*a^5*b*c^4*e*k*m^2*z^2 + 1296* \\
& a^5*b*c^4*d*l*m^2*z^2 + 648*a^4*b*c^5*f^2*j*m*z^2 + 81*a^2*b^7*c*f*j*m^2*z^ \\
& 2 + 1296*a^5*b*c^4*g*h*m^2*z^2 - 324*a^4*b*c^5*g^2*j*k*z^2 + 324*a^4*b*c^5* \\
& g^2*h*l*z^2 + 972*a^4*b*c^5*f*h^2*l*z^2 + 324*a^4*b*c^5*g*h^2*k*z^2 - 324*a \\
& ^4*b*c^5*e*h^2*m*z^2 - 324*a^4*b*c^5*d*j*k^2*z^2 - 324*a^3*b*c^6*d^2*j*k*z^ \\
& 2 + 972*a^4*b*c^5*f*g*k^2*z^2 + 972*a^3*b*c^6*d^2*g*m*z^2 + 324*a^4*b*c^5*e \\
& *h*k^2*z^2 + 324*a^3*b*c^6*d^2*h*l*z^2 + 81*a*b^5*c^4*d^2*g*m*z^2 + 972*a^4 \\
& *b*c^5*e*f*l^2*z^2 + 324*a^4*b*c^5*d*g*l^2*z^2 - 324*a^3*b*c^6*e^2*h*j*z^2 \\
& + 324*a^3*b*c^6*e^2*g*k*z^2 - 324*a^3*b*c^6*e^2*f*l*z^2 - 1296*a^4*b*c^5*d* \\
& e*m^2*z^2 + 81*a*b^7*c^2*d*e*m^2*z^2 - 324*a^3*b*c^6*d*g^2*j*z^2 - 81*a*b^4 \\
& *c^5*d^2*g*j*z^2 + 81*a*b^4*c^5*d^2*e*l*z^2 + 324*a^3*b*c^6*e*g^2*h*z^2 + 8 \\
& 1*a*b^4*c^5*d*e^2*k*z^2 + 1296*a^3*b*c^6*d*e*j^2*z^2 - 324*a^3*b*c^6*e*f*h^ \\
& 2*z^2 + 324*a^3*b*c^6*d*g*h^2*z^2 + 81*a*b^5*c^4*d*e*j^2*z^2 - 324*a^2*b*c^ \\
& 7*d^2*f*g*z^2 + 324*a^2*b*c^7*d^2*e*h*z^2 + 81*a*b^3*c^6*d^2*f*g*z^2 - 81*a \\
& *b^3*c^6*d^2*e*h*z^2 + 324*a^2*b*c^7*d*e^2*g*z^2 - 81*a*b^3*c^6*d*e^2*g*z^2 \\
& + 1296*a^6*c^4*j*k*l*m*z^2 - 1296*a^5*c^5*f*j*k*l*m*z^2 - 1296*a^5*c^5*e*j*k \\
& *m*z^2 - 1296*a^5*c^5*d*j*l*m*z^2 - 1296*a^5*c^5*g*h*j*m*z^2 + 1296*a^5*c^5
\end{aligned}$$



$$\begin{aligned}
& *e*h*1*m*z^2 + 1296*a^4*c^6*e*f*j*k*z^2 + 1296*a^4*c^6*d*g*j*k*z^2 + 1296*a^4*c^6*d*f*j*1*z^2 - 1296*a^4*c^6*d*e*k*1*z^2 + 1296*a^4*c^6*d*e*j*m*z^2 + \\
& 1296*a^4*c^6*f*g*h*j*z^2 - 1296*a^4*c^6*e*f*h*1*z^2 - 1296*a^3*c^7*d*e*f*j*z^2 + 648*a^5*b^3*c^2*k*1*m^2*z^2 + 648*a^4*b^3*c^3*j^2*k*1*z^2 + 486*a^5*b^2*c^3*h*1^2*m*z^2 - 81*a^4*b^4*c^2*h*1^2*m*z^2 + 81*a^4*b^3*c^3*h^2*1*m*z^2 - 81*a^3*b^5*c^2*j^2*k*1*z^2 - 162*a^4*b^2*c^4*g^2*k*m*z^2 - 81*a^4*b^3*c^3*h*k^2*1*z^2 + 81*a^4*b^3*c^3*g*k^2*m*z^2 - 567*a^4*b^3*c^3*h*j*1^2*z^2 + 486*a^4*b^2*c^4*h^2*j*1*z^2 - 81*a^4*b^3*c^3*g*k*1^2*z^2 + 81*a^4*b^3*c^3*e*1^2*m*z^2 + 81*a^3*b^5*c^2*h*j*1^2*z^2 - 81*a^3*b^4*c^3*h^2*j*1*z^2 + 81*a^3*b^3*c^4*e^2*1*m*z^2 + 2430*a^4*b^3*c^3*f*j*m^2*z^2 - 2268*a^4*b^2*c^4*f*j^2*m*z^2 - 810*a^3*b^5*c^2*f*j*m^2*z^2 + 810*a^3*b^4*c^3*f*j^2*m*z^2 - 648*a^4*b^3*c^3*e*k*m^2*z^2 - 648*a^4*b^3*c^3*d*1*m^2*z^2 - 648*a^4*b^2*c^4*h*j^2*k*z^2 - 648*a^4*b^2*c^4*g*j^2*1*z^2 - 162*a^3*b^3*c^4*f^2*j*m*z^2 + 81*a^3*b^5*c^2*e*k*m^2*z^2 + 81*a^3*b^5*c^2*d*1*m^2*z^2 + 81*a^3*b^4*c^3*h*j^2*k*z^2 + 81*a^3*b^4*c^3*g*j^2*1*z^2 - 81*a^2*b^6*c^2*f*j^2*m*z^2 - 648*a^4*b^3*c^3*g*h*m^2*z^2 + 486*a^4*b^2*c^4*g*j*k^2*z^2 - 486*a^4*b^2*c^4*e*k^2*1*z^2 + 486*a^3*b^2*c^5*d^2*k*m*z^2 - 162*a^4*b^2*c^4*d*k^2*m*z^2 + 81*a^3*b^5*c^2*g*h*m^2*z^2 - 81*a^3*b^4*c^3*g*j*k^2*z^2 + 81*a^3*b^4*c^3*e*k^2*1*z^2 + 81*a^3*b^3*c^4*g^2*j*k*z^2 - 81*a^2*b^4*c^4*d^2*k*m*z^2 + 486*a^4*b^2*c^4*e*j*1^2*z^2 - 486*a^4*b^2*c^4*d*k*1^2*z^2 - 162*a^3*b^2*c^5*e^2*j*1*z^2 - 81*a^3*b^4*c^3*e*j*1^2*z^2 + 81*a^3*b^4*c^3*d*k*1^2*z^2 - 81*a^3*b^3*c^4*g^2*h*1*z^2 - 1458*a^4*b^2*c^4*f*h*1^2*z^2 + 648*a^3*b^4*c^3*f*h*1^2*z^2 - 567*a^3*b^3*c^4*f*h^2*1*z^2 + 486*a^3*b^2*c^5*e^2*h*m*z^2 - 81*a^3*b^3*c^4*g*h^2*k*z^2 + 81*a^3*b^3*c^4*e*h^2*m*z^2 - 81*a^2*b^6*c^2*f*h*1^2*z^2 + 81*a^2*b^5*c^3*f*h^2*1*z^2 - 81*a^2*b^4*c^4*e^2*h*m*z^2 - 1296*a^4*b^2*c^4*e*g*m^2*z^2 - 1296*a^4*b^2*c^4*d*h*m^2*z^2 + 648*a^3*b^4*c^3*e*g*m^2*z^2 + 648*a^3*b^4*c^3*d*h*m^2*z^2 + 81*a^3*b^3*c^4*d*j*k^2*z^2 - 81*a^2*b^6*c^2*e*g*m^2*z^2 - 81*a^2*b^6*c^2*d*h*m^2*z^2 + 81*a^2*b^3*c^5*d^2*j*k*z^2 - 567*a^3*b^3*c^4*f*g*k^2*z^2 - 567*a^2*b^3*c^5*d^2*g*m*z^2 + 486*a^3*b^2*c^5*f*g^2*k*z^2 - 486*a^3*b^2*c^5*e*g^2*1*z^2 + 486*a^3*b^2*c^5*d*g^2*m*z^2 - 81*a^3*b^3*c^4*e*h*k^2*z^2 + 81*a^2*b^5*c^3*f*g*k^2*z^2 - 81*a^2*b^4*c^4*f*g^2*k*z^2 + 81*a^2*b^4*c^4*e*g^2*1*z^2 - 81*a^2*b^4*c^4*d*g^2*m*z^2 - 81*a^2*b^3*c^5*d^2*h*1*z^2 - 567*a^3*b^3*c^4*e*f*1^2*z^2 - 486*a^3*b^2*c^5*d*h^2*k*z^2 - 162*a^3*b^2*c^5*e*h^2*j*z^2 - 81*a^3*b^3*c^4*d*g*1^2*z^2 + 81*a^2*b^5*c^3*e*f*1^2*z^2 + 81*a^2*b^4*c^4*d*h^2*k*z^2 + 81*a^2*b^3*c^5*e^2*h*j*z^2 - 81*a^2*b^3*c^5*e^2*g*k*z^2 + 81*a^2*b^3*c^5*e^2*f*1*z^2 + 1944*a^3*b^3*c^4*d*e*m^2*z^2 - 729*a^2*b^5*c^3*d*e*m^2*z^2 + 648*a^3*b^2*c^5*e*g*j^2*z^2 + 648*a^3*b^2*c^5*d*h*j^2*z^2 - 81*a^2*b^4*c^4*e*g*j^2*z^2 - 81*a^2*b^4*c^4*d*h*j^2*z^2 + 486*a^3*b^2*c^5*d*f*k^2*z^2 + 486*a^2*b^2*c^6*d^2*g*j*z^2 - 486*a^2*b^2*c^6*d^2*e*1*z^2 - 162*a^2*b^2*c^6*d^2*f*k*z^2 - 81*a^2*b^4*c^4*d*f*k^2*z^2 + 81*a^2*b^3*c^5*d*g^2*j*z^2 - 486*a^2*b^2*c^6*d*e^2*k*z^2 - 81*a^2*b^3*c^5*e*g^2*h*z^2 - 648*a^2*b^3*c^5*d*e*j^2*z^2 - 162*a^2*b^2*c^6*e^2*f*h*z^2 + 81*a^2*b^3*c^5*e*f*h^2*z^2 - 81*a^2*b^3*c^5*d*g*h^2*z^2 - 162*a^2*b^2*c^6*d*f*g^2*z^2 - 189*a^5*b^3*c^2*1^3*m*z^2 + 162*a^5*b^2*c^3*k^3*m*z^2 - 27*a^4*b^4*c^2*k^3*m*z^2 - 702*a^4*b^3*c^3*j^3*m*z^2 - 81*a^3*b^6*c*j^2*m^2*z^2 + 81*a^3*b^5*c^2*j^3*m*z^2 - 54*a^5*b^3*c^2*j*m^3*z^2 - 486*a^5*b^2*c^3*j*1^3*z^2 + 216*a^4*b^4*c^2*j*1^3*z^2 - 189*a^4*b^3*c^3*j*k^3*z^2 - 54*a^4*b^2*c^4*h^3*m*z^2 + 27*a^3*b^5*c^2*j*k^3*z^2 + 27*a^3*b^3*c^4*g^3*m*z^2 - 810*a^4*b^4*c^2*f*m^3*z^2 + 540*a^5*b^2*c^3*f*m^3*z^2 - 324*a^3*b^2*c^5*f^3*m*z^2 + 54*a^2*b^4*c^4*f^3*m*z^2 + 675*a^4*b^3*c^3*f*1^3*z^2 - 243*a^3*b^5*c^2*f*1^3*z^2 - 189*a^2*b^3*c^5*e^3*m*z^2 + 27*a^3*b^3*c^4*h^3*j*z^2 - 486*a^4*b^2*c^4*f*k^3*z^2 - 486*a^2*b^2*c^6*d^3*m*z^2 + 216*a^3*b^4*c^3*f*k^3*z^2 - 54*a^3*b^2*c^5*g^3*j*z^2 - 27*a^2*b^6*c^2*f*k^3*z^2 - 270*a^3*b^3*c^4*f*j^3*z^2 - 54*a^2*b^3*c^5*f^3*j*z^2 + 27*a^2*b^5*c^3*f*j^3*z^2 + 162*a^2*b^2*c^6*e^3*j*z^2 + 162*a^3*b^2*c^5*f*h^3*z^2 - 27*a^2*b^4*c^4*f*h^3*z^2 + 27*a^2*b^3*c^5*f*g^3*z^2 + 81*a*b^2*c^7*d^2*e^2*z^2 - 648*a^6*c^4*h*1^2*m*z^2 + 648*a^5*c^5*g^2*k*m*z^2 - 648*a^5*c^5*h^2*j*1*z^2 + 1296*a^5*c^5*h*j^2*k*z^2 + 1296*a^5*c^5*g*j^2*1*z^2 + 1296*a^5*c^5*f*j^2*m*z^2 - 648*a^5*c^5*g*j*k^2*z^2 + 648*a^5*c^5*e*k^2*1*z^2 + 648*a^5*c^5*d*k^2*m*z^2 - 648*a^
\end{aligned}$$

$$\begin{aligned}
& 4c^6d^2k^2m^2z^2 - 648a^5c^5e^2j^2l^2z^2 + 648a^5c^5d^2k^2l^2z^2 + 648 \\
& a^4c^6e^2j^2l^2z^2 + 324a^6b^3c^3l^3m^2z^2 + 27a^4b^5c^3l^3m^2z^2 + 6 \\
& 48a^5c^5f^2h^2l^2z^2 - 648a^4c^6e^2h^2m^2z^2 + 1512a^5b^3c^4j^3m^2z^2 \\
& + 1080a^6b^3c^3j^3m^3z^2 - 162a^4b^5c^3j^3m^3z^2 - 648a^4c^6f^2g^2k \\
& z^2 + 648a^4c^6e^2g^2l^2z^2 - 648a^4c^6d^2g^2m^2z^2 - 27a^3b^6c^3j^2l \\
& ^3z^2 + 648a^4c^6e^2h^2j^2z^2 + 648a^4c^6d^2h^2k^2z^2 + 324a^5b^3c^4 \\
& j^2k^3z^2 - 1296a^4c^6e^2g^2j^2z^2 - 1296a^4c^6d^2h^2j^2z^2 - 108a^4b \\
& c^5g^3m^2z^2 - 648a^4c^6d^2f^2k^2z^2 - 648a^3c^7d^2g^2j^2z^2 + 648a^ \\
& 3c^7d^2f^2k^2z^2 + 648a^3c^7d^2e^2l^2z^2 + 270a^3b^6c^3f^2m^3z^2 + 648 \\
& a^3c^7d^2e^2k^2z^2 - 540a^5b^3c^4f^2l^3z^2 + 324a^3b^3c^6e^3m^2z^2 - \\
& 108a^4b^3c^5h^3j^2z^2 + 27a^2b^7c^3f^2l^3z^2 + 27a^2b^5c^4e^3m^2z^2 + \\
& 648a^3c^7e^2f^2h^2z^2 + 216a^2b^4c^5d^3m^2z^2 + 648a^4b^3c^5f^2j^3z^ \\
& 2 + 216a^3b^3c^6f^3j^2z^2 + 648a^3c^7d^2f^2g^2z^2 - 27a^2b^4c^5e^3j^2 \\
& z^2 + 324a^2b^3c^7d^3j^2z^2 - 189a^2b^3c^6d^3j^2z^2 - 108a^3b^3c^6f^2g \\
& ^3z^2 - 108a^2b^3c^7e^3f^2z^2 + 27a^2b^3c^6e^3f^2z^2 + 162a^2b^2c^7d \\
& ^3f^2z^2 - 1134a^5b^2c^3j^2m^2z^2 + 648a^4b^4c^2j^2m^2z^2 + 81a^5b^2c^3k^2l^2z^2 \\
& + 162a^4b^2c^4f^2m^2z^2 + 81a^4b^2c^4h^2k^2z^2 + 81a^4b^2c^4g^2l^2z^2 + 162a^3b^2c^5f^2j^2z^2 \\
& + 81a^3b^2c^5e^2k^2z^2 + 81a^3b^2c^5d^2l^2z^2 + 81a^3b^2c^5g^2h^2z^2 \\
& + 81a^2b^2c^6e^2g^2z^2 + 81a^2b^2c^6d^2h^2z^2 - 216a^6c^4k^3m^2z^2 + 216a^6c^4j^2l^3z^2 \\
& + 27a^3b^7j^2m^3z^2 + 216a^5c^5h^3m^2z^2 + 432a^6c^4f^2m^3z^2 + 432a^4c^6f^3m^2z^2 \\
& - 27b^6c^4d^3m^2z^2 - 27a^2b^8f^2m^3z^2 + 216a^5c^5f^2k^3z^2 + 216a^4c^6g^3j^2z^2 \\
& + 216a^3c^7d^3m^2z^2 + 216a^5b^4c^3m^4z^2 - 216a^3c^7e^3j^2z^2 + 27 \\
& b^5c^5d^3j^2z^2 - 216a^4c^6f^2h^3z^2 - 27b^4c^6d^3f^2z^2 - 216a^2c^8d^3f^2z^2 \\
& - 648a^6c^4j^2m^2z^2 - 324a^6c^4k^2l^2z^2 - 648a^5c^5f^2m^2z^2 - 324a^5c^5h^2k^2z^2 \\
& - 324a^5c^5g^2l^2z^2 - 648a^4c^6f^2j^2z^2 - 324a^4c^6e^2k^2z^2 - 324a^4c^6d^2l^2z^2 - \\
& 405a^6b^2c^2m^4z^2 - 324a^4c^6g^2h^2z^2 - 324a^3c^7e^2g^2z^2 - 324a^3c^7d^2h^2z^2 \\
& + 243a^4b^2c^4j^4z^2 - 27a^3b^4c^3j^4z^2 - 324a^2c^8d^2e^2z^2 + 27a^2b^2c^6f^4z^2 \\
& - 108a^7c^3m^4z^2 - 27a^4b^6m^4z^2 - 540a^5c^5j^4z^2 - 108a^3c^7f^4z^2 - 216a^5 \\
& b^3c^3f^2j^2k^2l^2m^2z^2 - 54a^3b^5c^3f^2j^2k^2l^2m^2z^2 + 27a^3b^5c^3g^2h^2k^2l^2m^2z^2 \\
& - 27a^2b^6c^3e^2g^2k^2l^2m^2z^2 - 27a^2b^6c^3d^2h^2k^2l^2m^2z^2 + 432a^4b^3c^4d^2g^2j^2k^2 \\
& m^2z^2 - 432a^4b^3c^4d^2e^2k^2l^2m^2z^2 + 216a^4b^3c^4e^2g^2j^2k^2l^2z^2 + 216a^4b^3c^4 \\
& e^2f^2j^2k^2m^2z^2 + 216a^4b^3c^4d^2h^2j^2k^2l^2z^2 + 216a^4b^3c^4d^2f^2j^2l^2m^2z^2 + 216 \\
& a^4b^3c^4f^2g^2h^2j^2m^2z^2 - 27a^2b^6c^2d^2e^2j^2k^2l^2z^2 - 27a^2b^6c^2d^2e^2h^2k^2m^2z^2 \\
& - 27a^2b^6c^2d^2e^2g^2l^2m^2z^2 + 216a^3b^3c^5d^2e^2h^2j^2k^2z^2 + 216a^3b^3c^5d^2 \\
& e^2g^2j^2l^2z^2 - 216a^3b^3c^5d^2e^2f^2j^2m^2z^2 + 27a^2b^5c^3d^2e^2h^2j^2k^2z^2 + 27a^2b^5 \\
& c^3d^2e^2g^2j^2l^2z^2 + 27a^2b^5c^3d^2e^2g^2h^2m^2z^2 - 27a^2b^4c^4d^2e^2g^2h^2j^2z^2 + 27 \\
& a^2b^7c^2d^2e^2k^2l^2m^2z^2 + 270a^4b^3c^2f^2j^2k^2l^2m^2z^2 - 108a^4b^3c^2g^2h^2k^2 \\
& l^2m^2z^2 - 216a^4b^2c^3f^2h^2j^2k^2m^2z^2 - 216a^4b^2c^3f^2g^2j^2l^2m^2z^2 - 216a^4 \\
& b^2c^3e^2g^2k^2l^2m^2z^2 - 216a^4b^2c^3d^2h^2k^2l^2m^2z^2 + 162a^3b^4c^2e^2g^2k^2 \\
& l^2m^2z^2 + 162a^3b^4c^2d^2h^2k^2l^2m^2z^2 + 108a^4b^2c^3g^2h^2j^2k^2l^2z^2 + 108a^4 \\
& b^2c^3e^2h^2j^2l^2m^2z^2 + 54a^3b^4c^2f^2h^2j^2k^2m^2z^2 + 54a^3b^4c^2f^2g^2j^2l^2 \\
& m^2z^2 - 27a^3b^4c^2g^2h^2j^2k^2l^2z^2 + 540a^3b^3c^3d^2e^2k^2l^2m^2z^2 - 216a^2b^5 \\
& c^2d^2e^2k^2l^2m^2z^2 - 162a^3b^3c^3e^2g^2j^2k^2l^2z^2 - 162a^3b^3c^3d^2h^2j^2k^2l^2 \\
& z^2 - 108a^3b^3c^3d^2g^2j^2k^2m^2z^2 - 54a^3b^3c^3e^2f^2j^2k^2m^2z^2 - 54a^3b^3c^3 \\
& c^3d^2f^2j^2l^2m^2z^2 + 27a^2b^5c^2e^2g^2j^2k^2l^2z^2 + 27a^2b^5c^2d^2h^2j^2k^2l^2z^2 - \\
& 108a^3b^3c^3e^2g^2h^2k^2m^2z^2 - 108a^3b^3c^3d^2g^2h^2l^2m^2z^2 - 54a^3b^3c^3 \\
& f^2g^2h^2j^2m^2z^2 + 27a^2b^5c^2e^2g^2h^2k^2m^2z^2 + 27a^2b^5c^2d^2g^2h^2l^2m^2z^2 - 54 \\
& 0a^3b^2c^4d^2e^2j^2k^2l^2z^2 + 216a^2b^4c^3d^2e^2j^2k^2l^2z^2 - 216a^3b^2c^4d^2 \\
& e^2h^2k^2m^2z^2 - 216a^3b^2c^4d^2e^2g^2l^2m^2z^2 + 162a^2b^4c^3d^2e^2h^2k^2m^2z^2 + 16 \\
& 2a^2b^4c^3d^2e^2g^2l^2m^2z^2 + 108a^3b^2c^4e^2g^2h^2j^2k^2z^2 - 108a^3b^2c^4e^2 \\
& f^2h^2j^2l^2z^2 + 108a^3b^2c^4d^2g^2h^2j^2l^2z^2 + 108a^3b^2c^4d^2f^2g^2k^2m^2z^2 - 27 \\
& a^2b^4c^3e^2g^2h^2j^2k^2z^2 - 27a^2b^4c^3d^2g^2h^2j^2l^2z^2 - 162a^2b^3c^4d^2e^2 \\
& h^2j^2k^2z^2 - 162a^2b^3c^4d^2e^2g^2j^2l^2z^2 + 54a^2b^3c^4d^2e^2f^2j^2m^2z^2 - 108a^ \\
& 2b^3c^4d^2e^2g^2h^2m^2z^2 + 108a^2b^2c^5d^2e^2g^2h^2j^2z^2 + 324a^6b^3c^2j^2k^2l^2 \\
& m^2z^2 - 81a^5b^3c^3j^2k^2l^2m^2z^2 + 27a^4b^4c^3j^2k^2l^2m^2z^2 - 27a^4b^4c^3
\end{aligned}$$

$$\begin{aligned}
& h^2 k^2 l^2 m^2 z - 27 a^4 b^4 c^4 g^2 k^2 l^2 m^2 z + 216 a^5 b^3 c^3 h^2 j^2 k^2 m^2 z + 216 a^5 b^3 c^3 g^2 j^2 l^2 m^2 z + 54 a^4 b^4 c^4 f^2 k^2 l^2 m^2 z + 27 a^4 b^4 c^4 h^2 j^2 k^2 m^2 z + \\
& 27 a^4 b^4 c^4 g^2 j^2 l^2 m^2 z + 27 a^2 b^6 c^4 f^2 k^2 l^2 m^2 z + 216 a^5 b^3 c^3 e^2 k^2 l^2 m^2 z - 108 a^5 b^3 c^3 h^2 j^2 k^2 l^2 m^2 z + 27 a^3 b^5 c^4 e^2 k^2 l^2 m^2 z + 216 a^5 b^3 c^3 d^2 k^2 l^2 m^2 z + 216 a^4 b^3 c^4 e^2 j^2 l^2 m^2 z - 108 a^5 b^3 c^3 g^2 j^2 k^2 l^2 m^2 z + 27 a^3 b^5 c^4 d^2 k^2 l^2 m^2 z - 324 a^5 b^3 c^3 e^2 j^2 k^2 l^2 m^2 z - 324 a^5 b^3 c^3 d^2 j^2 l^2 m^2 z - 216 a^5 b^3 c^3 f^2 h^2 l^2 m^2 z - 108 a^4 b^3 c^4 f^2 j^2 k^2 l^2 m^2 z - 27 a^3 b^5 c^4 e^2 j^2 k^2 l^2 m^2 z - 27 a^3 b^5 c^4 d^2 j^2 l^2 m^2 z - 324 a^5 b^3 c^3 g^2 h^2 j^2 m^2 z + 216 a^5 b^3 c^3 f^2 h^2 k^2 m^2 z + 216 a^5 b^3 c^3 f^2 g^2 l^2 m^2 z + 216 a^5 b^3 c^3 e^2 h^2 l^2 m^2 z - 216 a^4 b^3 c^4 f^2 h^2 k^2 m^2 z - 216 a^4 b^3 c^4 f^2 g^2 l^2 m^2 z - 27 a^3 b^5 c^4 g^2 h^2 j^2 m^2 z + 216 a^4 b^3 c^4 e^2 g^2 l^2 m^2 z - 108 a^4 b^3 c^4 g^2 h^2 j^2 l^2 m^2 z - 216 a^4 b^3 c^4 f^2 h^2 j^2 l^2 m^2 z + 216 a^4 b^3 c^4 e^2 h^2 j^2 m^2 z + 216 a^4 b^3 c^4 d^2 h^2 k^2 m^2 z - 108 a^4 b^3 c^4 g^2 h^2 j^2 k^2 z - 432 a^4 b^3 c^4 e^2 g^2 j^2 m^2 z - 432 a^4 b^3 c^4 d^2 h^2 j^2 m^2 z + 216 a^4 b^3 c^4 f^2 h^2 j^2 k^2 z + 216 a^4 b^3 c^4 f^2 g^2 j^2 l^2 m^2 z + 27 a^2 b^6 c^4 e^2 g^2 j^2 m^2 z + 27 a^2 b^6 c^4 d^2 h^2 j^2 m^2 z - 432 a^3 b^3 c^5 d^2 g^2 j^2 m^2 z - 216 a^4 b^3 c^4 f^2 g^2 j^2 k^2 z + 216 a^3 b^3 c^5 d^2 f^2 k^2 m^2 z + 216 a^3 b^3 c^5 d^2 e^2 l^2 m^2 z - 108 a^4 b^3 c^4 e^2 h^2 j^2 k^2 z - 108 a^4 b^3 c^4 d^2 g^2 k^2 l^2 z - 108 a^3 b^3 c^5 d^2 h^2 j^2 l^2 z + 108 a^3 b^3 c^5 d^2 g^2 k^2 l^2 z - 54 a^2 b^5 c^3 d^2 g^2 j^2 m^2 z + 27 a^2 b^5 c^3 d^2 e^2 l^2 m^2 z - 216 a^4 b^3 c^4 e^2 f^2 j^2 l^2 z + 216 a^3 b^3 c^5 d^2 e^2 k^2 m^2 z - 108 a^4 b^3 c^4 d^2 g^2 j^2 l^2 z - 108 a^3 b^3 c^5 e^2 g^2 j^2 k^2 z + 27 a^2 b^5 c^3 d^2 e^2 k^2 m^2 z + 324 a^4 b^3 c^4 d^2 e^2 j^2 m^2 z + 216 a^3 b^3 c^5 e^2 f^2 h^2 m^2 z - 108 a^4 b^3 c^4 e^2 g^2 h^2 l^2 z + 108 a^3 b^3 c^5 e^2 g^2 h^2 l^2 z + 108 a^3 b^3 c^5 e^2 f^2 j^2 k^2 z + 108 a^3 b^3 c^5 d^2 f^2 j^2 l^2 z + 27 a^2 b^6 c^4 d^2 e^2 j^2 m^2 z - 216 a^3 b^3 c^5 e^2 f^2 h^2 l^2 z + 108 a^3 b^3 c^5 f^2 g^2 h^2 j^2 z - 27 a^2 b^4 c^4 d^2 e^2 j^2 l^2 z + 216 a^3 b^3 c^5 d^2 f^2 g^2 m^2 z - 108 a^3 b^3 c^5 e^2 g^2 h^2 j^2 z + 54 a^2 b^4 c^4 d^2 f^2 g^2 m^2 z - 27 a^2 b^4 c^4 d^2 g^2 h^2 k^2 z - 27 a^2 b^4 c^4 d^2 e^2 h^2 m^2 z - 27 a^2 b^4 c^4 d^2 e^2 j^2 k^2 z - 108 a^3 b^3 c^5 d^2 g^2 h^2 j^2 z + 54 a^2 b^4 c^4 d^2 e^2 h^2 j^2 l^2 z + 27 a^2 b^6 c^4 d^2 e^2 h^2 l^2 z - 27 a^2 b^5 c^3 d^2 e^2 h^2 l^2 z - 27 a^2 b^4 c^4 d^2 e^2 g^2 m^2 z - 27 a^2 b^4 c^4 d^2 e^2 f^2 m^2 z + 216 a^2 b^3 c^6 d^2 f^2 g^2 j^2 z - 108 a^3 b^3 c^5 d^2 e^2 g^2 k^2 z - 108 a^2 b^3 c^6 d^2 e^2 h^2 j^2 z + 108 a^2 b^3 c^6 d^2 e^2 g^2 k^2 z - 54 a^2 b^3 c^5 d^2 f^2 g^2 j^2 z - 27 a^2 b^5 c^3 d^2 e^2 g^2 k^2 z + 27 a^2 b^4 c^4 d^2 e^2 g^2 k^2 z + 27 a^2 b^3 c^5 d^2 e^2 h^2 j^2 z - 27 a^2 b^3 c^5 d^2 e^2 g^2 k^2 z - 108 a^2 b^3 c^6 d^2 e^2 g^2 j^2 z + 27 a^2 b^3 c^5 d^2 e^2 f^2 j^2 z - 108 a^2 b^3 c^6 d^2 e^2 f^2 j^2 z + 27 a^2 b^3 c^5 d^2 e^2 f^2 j^2 z - 432 a^5 c^4 e^2 h^2 j^2 l^2 m^2 z + 432 a^4 c^5 d^2 e^2 j^2 k^2 l^2 z + 432 a^4 c^5 e^2 f^2 h^2 j^2 l^2 z - 432 a^4 c^5 d^2 f^2 g^2 k^2 m^2 z - 27 a^2 b^7 c^4 d^2 e^2 j^2 m^2 z - 54 a^5 b^2 c^2 j^2 k^2 l^2 m^2 z + 108 a^5 b^2 c^2 h^2 k^2 l^2 m^2 z + 108 a^5 b^2 c^2 g^2 k^2 l^2 m^2 z - 54 a^5 b^2 c^2 h^2 j^2 l^2 m^2 z + 378 a^4 b^2 c^3 f^2 k^2 l^2 m^2 z - 270 a^5 b^2 c^2 f^2 k^2 l^2 m^2 z - 189 a^3 b^4 c^2 f^2 k^2 l^2 m^2 z - 108 a^5 b^2 c^2 h^2 j^2 k^2 m^2 z - 108 a^5 b^2 c^2 g^2 j^2 l^2 m^2 z - 54 a^4 b^3 c^2 h^2 j^2 k^2 m^2 z - 54 a^4 b^3 c^2 g^2 j^2 l^2 m^2 z - 162 a^4 b^3 c^2 e^2 k^2 l^2 m^2 z + 54 a^4 b^2 c^3 g^2 j^2 k^2 m^2 z + 27 a^4 b^3 c^2 h^2 j^2 k^2 l^2 z - 162 a^4 b^3 c^2 d^2 k^2 l^2 m^2 z + 108 a^4 b^2 c^3 g^2 h^2 l^2 m^2 z - 54 a^3 b^3 c^3 e^2 j^2 l^2 m^2 z + 27 a^4 b^3 c^2 g^2 j^2 k^2 l^2 z - 27 a^3 b^4 c^2 g^2 h^2 l^2 m^2 z - 270 a^4 b^2 c^3 f^2 j^2 k^2 l^2 z + 189 a^4 b^3 c^2 e^2 j^2 k^2 m^2 z + 189 a^4 b^3 c^2 d^2 j^2 l^2 m^2 z - 162 a^4 b^2 c^3 e^2 j^2 k^2 m^2 z - 162 a^4 b^2 c^3 d^2 j^2 l^2 m^2 z + 135 a^3 b^3 c^3 f^2 j^2 k^2 l^2 z + 108 a^4 b^2 c^3 g^2 h^2 k^2 m^2 z + 54 a^4 b^3 c^2 f^2 h^2 l^2 m^2 z - 54 a^4 b^2 c^3 f^2 h^2 l^2 m^2 z + 54 a^3 b^4 c^2 f^2 j^2 k^2 l^2 z - 27 a^3 b^4 c^2 g^2 h^2 k^2 m^2 z + 27 a^3 b^4 c^2 e^2 j^2 k^2 m^2 z + 27 a^3 b^4 c^2 d^2 j^2 l^2 m^2 z - 27 a^2 b^5 c^2 f^2 j^2 k^2 l^2 z - 270 a^3 b^2 c^4 d^2 j^2 k^2 m^2 z + 189 a^4 b^3 c^2 g^2 h^2 j^2 m^2 z - 162 a^4 b^2 c^3 g^2 h^2 j^2 m^2 z + 162 a^4 b^2 c^3 e^2 j^2 k^2 l^2 z + 162 a^3 b^3 c^3 f^2 h^2 k^2 m^2 z + 162 a^3 b^3 c^3 f^2 g^2 l^2 m^2 z - 54 a^4 b^3 c^2 f^2 h^2 k^2 m^2 z - 54 a^4 b^3 c^2 f^2 g^2 l^2 m^2 z - 54 a^4 b^3 c^2 e^2 h^2 l^2 m^2 z + 54 a^4 b^2 c^3 d^2 j^2 k^2 m^2 z + 54 a^4 b^2 c^3 d^2 j^2 k^2 m^2 z + 27 a^3 b^4 c^2 g^2 h^2 j^2 m^2 z - 27 a^3 b^4 c^2 e^2 j^2 k^2 l^2 z - 27 a^2 b^5 c^2 f^2 h^2 k^2 m^2 z - 27 a^2 b^5 c^2 f^2 g^2 l^2 m^2 z + 162 a^4 b^2 c^3 d^2 j^2 k^2 l^2 z - 162 a^3 b^3 c^3 e^2 g^2 l^2 m^2 z + 108 a^4 b^2 c^3 e^2 h^2 k^2 l^2 m^2 z + 108 a^3 b^2 c^4 d^2 h^2 l^2 m^2 z - 54 a^4 b^2 c^3 f^2 g^2 k^2 m^2 z - 27 a^3 b^4 c^2 e^2 h^2 k^2 m^2 z - 27 a^3 b^4 c^2 d^2 j^2 k^2 l^2 z + 27 a^3 b^3 c^3 g^2 h^2 j^2 l^2 z + 27 a^2 b^5 c^2 e^2 g^2 l^2 m^2 z - 27 a^2 b^4 c^3 d^2 h^2 l^2 m^2 z + 270 a^4 b^2 c^3 f^2 h^2 j^2 l^2 z - 270 a^3 b^2 c^4 e^2 h^2 j^2 m^2 z - 162 a^4 b^2 c^3 e^2 h^2 k^2 l^2 z
\end{aligned}$$

$$\begin{aligned}
& - 162a^3b^3c^3d^2h^2k^2m^2z + 162a^3b^2c^4e^2h^2k^2l^2z + 108a^4b^2c^3d^2g^2l^2m^2z + 108a^3b^2c^4e^2g^2k^2m^2z - 54a^4b^2c^3e^2f^2l^2m^2z \\
& - 54a^3b^4c^2f^2h^2j^2l^2z + 54a^3b^3c^3f^2h^2j^2l^2z - 54a^3b^3c^3e^2h^2j^2m^2z + 54a^3b^2c^4e^2f^2l^2m^2z + 54a^2b^4c^3e^2h^2j^2m^2z + 27a^3b^4c^2e^2h^2k^2l^2z \\
& - 27a^3b^4c^2d^2g^2l^2m^2z + 27a^3b^3c^3g^2h^2j^2k^2z + 27a^2b^5c^2d^2h^2k^2m^2z - 27a^2b^4c^3e^2h^2k^2l^2z - 27a^2b^4c^3e^2g^2k^2m^2z + 432a^4b^2c^3e^2g^2j^2m^2z \\
& + 432a^4b^2c^3d^2h^2j^2m^2z - 270a^4b^2c^3d^2g^2k^2m^2z - 216a^3b^4c^2e^2g^2j^2m^2z - 216a^3b^4c^2d^2h^2j^2m^2z + 216a^3b^3c^3e^2g^2j^2m^2z + 216a^3b^3c^3d^2h^2j^2m^2z \\
& - 162a^3b^2c^4e^2f^2k^2m^2z - 162a^3b^2c^4d^2f^2l^2m^2z - 108a^3b^2c^4f^2h^2j^2k^2z - 108a^3b^2c^4f^2g^2j^2l^2z + 54a^4b^2c^3e^2f^2k^2m^2z + 54a^4b^2c^3d^2f^2l^2m^2z \\
& + 54a^3b^4c^2d^2g^2k^2m^2z - 54a^3b^3c^3f^2h^2j^2k^2z - 54a^3b^3c^3f^2g^2j^2l^2z - 27a^2b^5c^2e^2g^2j^2m^2z - 27a^2b^5c^2d^2h^2j^2m^2z + 27a^2b^4c^3f^2h^2j^2k^2z \\
& + 27a^2b^4c^3f^2g^2j^2l^2z + 27a^2b^4c^3e^2f^2k^2m^2z + 27a^2b^4c^3d^2f^2l^2m^2z + 324a^2b^3c^4d^2g^2j^2m^2z - 270a^3b^2c^4d^2g^2j^2m^2z - 162a^3b^2c^4f^2g^2h^2m^2z \\
& + 162a^3b^2c^4e^2g^2j^2l^2z - 162a^2b^3c^4d^2e^2l^2m^2z - 135a^2b^3c^4d^2g^2k^2l^2z + 108a^3b^2c^4d^2g^2k^2l^2z + 54a^4b^2c^3f^2g^2h^2m^2z + 54a^3b^3c^3f^2g^2j^2k^2z \\
& - 54a^3b^2c^4f^2g^2j^2k^2z + 54a^2b^4c^3d^2g^2j^2m^2z - 54a^2b^3c^4d^2f^2k^2m^2z + 27a^3b^3c^3e^2h^2j^2k^2z + 27a^3b^3c^3d^2g^2k^2l^2z + 27a^2b^4c^3f^2g^2h^2m^2z \\
& - 27a^2b^4c^3e^2g^2j^2l^2z - 27a^2b^4c^3d^2g^2k^2l^2z + 27a^2b^3c^4d^2h^2j^2l^2z + 162a^3b^2c^4d^2h^2j^2k^2z - 162a^2b^3c^4d^2e^2k^2m^2z + 108a^3b^2c^4e^2g^2h^2m^2z \\
& + 54a^3b^3c^3e^2f^2j^2l^2z + 27a^3b^3c^3d^2g^2j^2l^2z - 27a^2b^4c^3e^2g^2h^2m^2z - 27a^2b^4c^3d^2h^2j^2k^2z + 27a^2b^3c^4e^2g^2j^2k^2z - 621a^3b^3c^3d^2e^2j^2m^2z \\
& + 594a^3b^2c^4d^2e^2j^2m^2z + 243a^2b^5c^2d^2e^2j^2m^2z - 243a^2b^4c^3d^2e^2j^2m^2z + 135a^3b^3c^3e^2g^2h^2l^2z - 108a^3b^2c^4e^2g^2h^2l^2z + 108a^3b^2c^4d^2g^2h^2m^2z \\
& + 54a^3b^2c^4e^2f^2j^2k^2z + 54a^3b^2c^4e^2f^2h^2m^2z + 54a^3b^2c^4d^2g^2j^2k^2z + 54a^3b^2c^4d^2f^2j^2l^2z - 54a^2b^3c^4e^2f^2h^2m^2z - 27a^2b^5c^2e^2g^2h^2l^2z \\
& + 27a^2b^4c^3e^2g^2h^2l^2z - 27a^2b^4c^3d^2g^2h^2m^2z - 27a^2b^3c^4e^2g^2h^2l^2z - 27a^2b^3c^4e^2f^2j^2k^2z - 27a^2b^3c^4d^2f^2j^2l^2z + 162a^2b^2c^5d^2e^2j^2l^2z \\
& + 54a^3b^2c^4f^2g^2h^2j^2z - 54a^3b^2c^4d^2f^2j^2k^2z + 54a^2b^3c^4e^2f^2h^2l^2z + 54a^2b^2c^5d^2f^2j^2k^2z - 27a^2b^3c^4f^2g^2h^2j^2z - 270a^2b^2c^5d^2f^2g^2m^2z \\
& - 162a^3b^2c^4d^2g^2h^2k^2z + 162a^2b^2c^5d^2g^2h^2k^2z + 162a^2b^2c^5d^2e^2j^2k^2z + 108a^2b^2c^5d^2e^2h^2m^2z - 54a^2b^3c^4d^2f^2g^2m^2z + 27a^2b^4c^3d^2g^2h^2k^2z \\
& + 27a^2b^3c^4e^2g^2h^2j^2z + 270a^3b^2c^4d^2e^2h^2l^2z - 270a^2b^2c^5d^2e^2h^2l^2z - 162a^2b^4c^3d^2e^2h^2l^2z + 108a^2b^3c^4d^2e^2h^2l^2z + 108a^2b^2c^5d^2e^2g^2m^2z \\
& + 54a^2b^2c^5e^2f^2h^2j^2z + 27a^2b^3c^4d^2g^2h^2j^2z + 162a^2b^2c^5d^2e^2f^2m^2z - 54a^3b^2c^4d^2e^2f^2m^2z - 54a^2b^2c^5d^2f^2g^2k^2z + 135a^2b^3c^4d^2e^2g^2k^2z \\
& - 108a^2b^2c^5d^2e^2g^2k^2z + 54a^2b^2c^5d^2f^2g^2j^2z - 54a^2b^2c^5d^2e^2f^2j^2z - 9a^5b^7c^2d^2e^2l^3z - 36a^5b^6c^7d^3e^2g^2z - 108a^6b^5c^2k^2l^2m^2z \\
& + 27a^5b^3c^2k^2l^2m^2z - 18a^5b^2c^2j^2k^3m^2z - 27a^4b^3c^2j^3k^2l^2z - 108a^5b^5c^3h^2k^2m^2z - 108a^5b^5c^3g^2l^2m^2z + 108a^5b^5c^3h^2k^2l^2z \\
& + 108a^5b^5c^3g^2k^2m^2z + 90a^5b^2c^2f^2l^3m^2z - 18a^5b^2c^2h^2k^2l^3z + 18a^4b^2c^3h^3k^2l^2z + 18a^4b^2c^3h^3j^2m^2z - 108a^5b^5c^3h^2j^2l^2z \\
& + 18a^4b^3c^2f^2k^3m^2z - 18a^3b^3c^3g^3j^2m^2z - 9a^4b^3c^2g^2k^3l^2z + 9a^3b^3c^3g^3k^2l^2z + 252a^4b^2c^3f^2j^3m^2z + 216a^5b^5c^3f^2j^2m^2z \\
& + 180a^3b^2c^4f^3j^2m^2z - 108a^4b^2c^4e^2k^2m^2z - 108a^4b^2c^4d^2l^2m^2z + 90a^5b^2c^2e^2k^2m^3z + 90a^5b^2c^2d^2l^2m^3z - 90a^3b^2c^4f^3k^2l^2z \\
& + 54a^3b^5c^2f^2j^2m^2z - 54a^3b^4c^2f^2j^3m^2z + 36a^5b^2c^2f^2j^2m^3z + 36a^4b^2c^3h^2j^3k^2z + 36a^4b^2c^3g^2j^3l^2z - 36a^2b^4c^3f^3j^2m^2z \\
& - 27a^2b^6c^2f^2j^2m^2z + 18a^2b^4c^3f^3k^2l^2z - 216a^4b^2c^4d^2k^2m^2z + 108a^5b^5c^3d^2k^2m^2z - 108a^4b^3c^2f^2j^2l^3z - 108a^4b^3c^4g^2h^2m^2z \\
& + 108a^2b^3c^4e^3j^2m^2z + 90a^5b^2c^2g^2h^2m^3z + 54a^4b^3c^2e^2k^2l^3z - 54a^2b^3c^4e^3k^2l^2z + 234a^2b^2c^5d^3z
\end{aligned}$$

$$\begin{aligned}
& j*m*z - 144*a^2*b^2*c^5*d^3*k*k*l*z + 90*a^4*b^2*c^3*f*j*k^3*z - 72*a^4*b^2*c^3*d*k^3*l*z + 27*a^4*b^3*c^2*g*h*l^3*z - 27*a^3*b^3*c^3*g*h^3*l*z - 18*a^3 \\
& *b^4*c^2*f*j*k^3*z + 9*a^3*b^4*c^2*d*k^3*l*z + 216*a^4*b*c^4*f^2*h*l^2*z - 216*a^4*b*c^4*e^2*h*m^2*z + 108*a^4*b*c^4*g^2*h*k^2*z - 18*a^4*b^2*c^3*g*h* \\
& k^3*z + 18*a^3*b^2*c^4*g^3*h*k*k*z + 18*a^3*b^2*c^4*f*g^3*m*z + 9*a^3*b^4*c^2 \\
& *g*h*k^3*z - 9*a^3*b^3*c^3*e*j^3*k*k*z - 9*a^3*b^3*c^3*d*j^3*l*z - 144*a^4*b^ \\
& 3*c^2*e*g*m^3*z - 144*a^4*b^3*c^2*d*h*m^3*z - 108*a^3*b*c^5*e^2*g^2*m*z + 1 \\
& 08*a^3*b*c^5*d^2*j^2*k*k*z - 108*a^3*b*c^5*d^2*h^2*m*z - 18*a^2*b^3*c^4*f^3*h \\
& *k*k*z - 18*a^2*b^3*c^4*f^3*g*l*z - 9*a^3*b^3*c^3*g*h*j^3*z - 216*a^4*b*c^4*d \\
& *g^2*m^2*z + 144*a^4*b^2*c^3*e*g*l^3*z - 126*a^3*b^2*c^4*d*h^3*l*z - 108*a^ \\
& 4*b*c^4*d*h^2*l^2*z - 108*a^3*b*c^5*f^2*g^2*k*k*z - 108*a^3*b*c^5*e^2*h^2*k*k*z \\
& - 90*a^2*b^2*c^5*e^3*f*m*m*z + 72*a^2*b^2*c^5*e^3*g*l*z - 63*a^3*b^4*c^2*e*g \\
& *l^3*z - 36*a^3*b^4*c^2*d*h*l^3*z + 27*a^2*b^4*c^3*d*h^3*l*z + 27*a*b^6*c^2 \\
& *d^2*g*m^2*z - 18*a^4*b^2*c^3*d*h*l^3*z - 18*a^3*b^2*c^4*f*h^3*j*z - 18*a^3 \\
& *b^2*c^4*e*h^3*k*k*z + 18*a^2*b^2*c^5*e^3*h*k*k*z + 108*a^3*b*c^5*e^2*h*j^2*z + \\
& 54*a^3*b^3*c^3*d*h*k^3*z + 27*a^3*b^3*c^3*e*g*k^3*z - 27*a^2*b^3*c^4*e*g^3 \\
& *k*k*z + 27*a^2*b^3*c^4*d*g^3*l*z - 27*a*b^4*c^4*d^2*g^2*l*z - 9*a^2*b^5*c^2* \\
& e*g*k^3*z - 9*a^2*b^5*c^2*d*h*k^3*z + 207*a^3*b^4*c^2*d*e*m^3*z - 108*a^2*b \\
& *c^6*d^2*e^2*m*m*z - 90*a^4*b^2*c^3*d*e*m^3*z - 72*a^3*b^2*c^4*e*g*j^3*z - 72 \\
& *a^3*b^2*c^4*d*h*j^3*z + 27*a*b^3*c^5*d^2*e^2*m*m*z + 18*a^2*b^2*c^5*e*f^3*k*k \\
& z + 18*a^2*b^2*c^5*d*f^3*l*z + 9*a^2*b^4*c^3*e*g*j^3*z + 9*a^2*b^4*c^3*d*h* \\
& j^3*z - 216*a^3*b*c^5*d*e^2*l^2*z - 198*a^3*b^3*c^3*d*e*l^3*z + 108*a^3*b*c \\
& ^5*d*g^2*j^2*z - 108*a^3*b*c^5*d*f^2*k^2*z + 72*a^2*b^5*c^2*d*e*l^3*z - 27* \\
& a*b^5*c^3*d*e^2*l^2*z + 27*a*b^4*c^4*d^2*g*j^2*z + 18*a^2*b^2*c^5*f^3*g*h*z \\
& + 144*a^3*b^2*c^4*d*e*k^3*z - 63*a^2*b^4*c^3*d*e*k^3*z + 27*a*b^4*c^4*d^2* \\
& e*k^2*z - 9*a^2*b^3*c^4*e*g*h^3*z - 108*a^2*b*c^6*d^2*g^2*h*z + 81*a^2*b^3* \\
& c^4*d*e*j^3*z + 27*a*b^3*c^5*d^2*g^2*h*z - 27*a*b^2*c^6*d^2*e^2*j*z - 18*a^ \\
& 2*b^2*c^5*d*g^3*h*z + 108*a^2*b*c^6*d*e^2*h^2*z - 27*a*b^3*c^5*d*e^2*h^2*z \\
& + 27*a*b^2*c^6*d^2*f^2*g*z - 18*a^2*b^2*c^5*d*e*h^3*z - 216*a^6*c^3*j^2*k*l \\
& *m*z + 216*a^6*c^3*h*j*l^2*m*z + 216*a^6*c^3*f*k*l*m^2*z - 216*a^5*c^4*f^2* \\
& k*l*m*z - 216*a^5*c^4*g^2*j*k*m*z + 216*a^5*c^4*f*j^2*k*l*z + 216*a^5*c^4*f \\
& *h^2*l*m*z + 216*a^5*c^4*e*j^2*k*m*z + 216*a^5*c^4*d*j^2*l*m*z + 216*a^5*c^ \\
& 4*g*h*j^2*m*z - 216*a^5*c^4*e*j*k^2*l*z - 216*a^5*c^4*d*j*k^2*m*z + 216*a^4 \\
& *c^5*d^2*j*k*m*z - 18*a^6*b^2*c*k*k*l*m^3*z + 216*a^5*c^4*f*g*k^2*m*z - 216*a \\
& ^5*c^4*d*j*k*l^2*z - 72*a^6*b*c^2*j*l^3*m*z + 18*a^5*b^3*c*j*l^3*m*z - 216* \\
& a^5*c^4*f*h*j*l^2*z + 216*a^5*c^4*e*h*k*k*l^2*z + 216*a^5*c^4*e*f*l^2*m*z - 2 \\
& 16*a^4*c^5*e^2*h*k*k*l*z + 216*a^4*c^5*e^2*h*j*m*z - 216*a^4*c^5*e^2*f*l*m*z \\
& - 216*a^5*c^4*e*f*k*m^2*z + 216*a^5*c^4*d*g*k*m^2*z - 216*a^5*c^4*d*f*l*m^2 \\
& *z + 216*a^4*c^5*e*f^2*k*m*z + 216*a^4*c^5*d*f^2*l*m*z + 108*a^5*b*c^3*j^3* \\
& k*l*z - 216*a^5*c^4*f*g*h*m^2*z + 216*a^4*c^5*f^2*g*h*m*z + 216*a^4*c^5*f*g \\
& ^2*j*k*k*z - 216*a^4*c^5*e*g^2*j*l*z + 216*a^4*c^5*d*g^2*j*m*z - 72*a^6*b*c^2 \\
& *h*k*m^3*z - 72*a^6*b*c^2*g*l*m^3*z + 54*a^5*b^3*c*h*k*m^3*z + 54*a^5*b^3*c \\
& *g*l*m^3*z - 216*a^4*c^5*d*h^2*j*k*k*z - 18*a^4*b^4*c*f*l^3*m*z + 9*a^4*b^4*c \\
& *h*k*k*l^3*z - 216*a^4*c^5*e*f*j^2*k*k*z - 216*a^4*c^5*e*f*h^2*m*z - 216*a^4*c^ \\
& 5*d*g*j^2*k*k*z - 216*a^4*c^5*d*f*j^2*l*z - 216*a^4*c^5*d*e*j^2*m*z - 72*a^5* \\
& b*c^3*f*k^3*m*z + 72*a^4*b*c^4*g^3*j*m*z + 36*a^5*b*c^3*g*k^3*l*z - 36*a^4* \\
& b*c^4*g^3*k*k*l*z - 216*a^4*c^5*f*g*h*j^2*z + 216*a^4*c^5*d*f*j*k^2*z - 216*a \\
& ^3*c^6*d^2*f*j*k*k*z - 216*a^3*c^6*d^2*e*j*l*z + 72*a^4*b^4*c*f*j*m^3*z - 63* \\
& a^4*b^4*c*e*k*m^3*z - 63*a^4*b^4*c*d*l*m^3*z + 216*a^4*c^5*d*g*h*k^2*z - 21 \\
& 6*a^3*c^6*d^2*g*h*k*k*z + 216*a^3*c^6*d^2*f*g*m*z - 216*a^3*c^6*d*e^2*j*k*k*z + \\
& 144*a^5*b*c^3*f*j*l^3*z - 144*a^3*b*c^5*e^3*j*m*z - 72*a^5*b*c^3*e*k*k*l^3*z \\
& + 72*a^3*b*c^5*e^3*k*k*l*z - 63*a^4*b^4*c*g*h*m^3*z + 18*a^3*b^5*c*f*j*l^3*z \\
& - 18*a*b^5*c^3*e^3*j*m*z - 9*a^3*b^5*c*e*k*k*l^3*z + 9*a*b^5*c^3*e^3*k*k*l*z - \\
& 216*a^4*c^5*d*e*h*l^2*z - 216*a^3*c^6*e^2*f*h*j*z + 216*a^3*c^6*d*e^2*h*l* \\
& z - 126*a*b^4*c^4*d^3*j*m*z + 108*a^4*b*c^4*g*h^3*l*z + 63*a*b^4*c^4*d^3*k*k \\
& l*z + 36*a^5*b*c^3*g*h*l^3*z - 9*a^3*b^5*c*g*h*l^3*z + 216*a^4*c^5*d*e*f*m^ \\
& 2*z + 216*a^3*c^6*d*f^2*g*k*k*z - 216*a^3*c^6*d*e*f^2*m*z + 36*a^4*b*c^4*e*j^ \\
& 3*k*k*z + 36*a^4*b*c^4*d*j^3*l*z - 216*a^3*c^6*d*f*g^2*j*z + 72*a^3*b^5*c*e*g \\
& *m^3*z + 72*a^3*b^5*c*d*h*m^3*z + 72*a^3*b*c^5*f^3*h*k*k*z + 72*a^3*b*c^5*f^3
\end{aligned}$$

$$\begin{aligned}
& *g*1*z + 36*a^4*b*c^4*g*h*j^3*z + 18*a*b^4*c^4*e^3*f*m*z + 9*a^2*b^6*c*e*g* \\
& l^3*z + 9*a^2*b^6*c*d*h*1^3*z - 9*a*b^4*c^4*e^3*h*k*z - 9*a*b^4*c^4*e^3*g*1 \\
& *z + 216*a^3*c^6*d*e*f*j^2*z - 144*a^2*b*c^6*d^3*f*m*z + 108*a^3*b*c^5*e*g^ \\
& 3*k*z - 108*a^3*b*c^5*d*g^3*1*z + 108*a*b^3*c^5*d^3*f*m*z - 72*a^4*b*c^4*d* \\
& h*k^3*z + 72*a^2*b*c^6*d^3*h*k*z - 54*a*b^3*c^5*d^3*h*k*z + 36*a^4*b*c^4*e* \\
& g*k^3*z - 36*a^2*b*c^6*d^3*g*1*z - 27*a*b^3*c^5*d^3*g*1*z - 81*a^2*b^6*c*d* \\
& e*m^3*z + 216*a^4*b*c^4*d*e*1^3*z + 72*a^2*b*c^6*e^3*f*j*z + 72*a^2*b*c^6*d \\
& *e^3*1*z - 18*a*b^3*c^5*e^3*f*j*z - 18*a*b^3*c^5*d*e^3*1*z - 90*a*b^2*c^6*d \\
& ^3*f*j*z + 72*a*b^2*c^6*d^3*e*k*z + 36*a^3*b*c^5*e*g*h^3*z - 36*a^2*b*c^6*e \\
& ^3*g*h*z + 9*a*b^6*c^2*d*e*k^3*z + 9*a*b^3*c^5*e^3*g*h*z - 180*a^3*b*c^5*d* \\
& e*j^3*z + 18*a*b^2*c^6*d^3*g*h*z - 9*a*b^5*c^3*d*e*j^3*z + 18*a*b^2*c^6*d*e \\
& ^3*h*z + 9*a*b^4*c^4*d*e*h^3*z + 36*a^2*b*c^6*d*e*g^3*z - 9*a*b^3*c^5*d*e*g \\
& ^3*z - 18*a*b^2*c^6*d*e*f^3*z + 27*a^5*b^2*c^2*h^2*1*m^2*z - 27*a^5*b^2*c^2 \\
& *j*k^2*1^2*z + 27*a^4*b^3*c^2*h^2*k^2*m*z + 27*a^4*b^3*c^2*g^2*1^2*m*z + 27 \\
& *a^5*b^2*c^2*g*k^2*m^2*z - 27*a^4*b^3*c^2*h^2*k*1^2*z - 27*a^4*b^3*c^2*g^2* \\
& k*m^2*z - 135*a^4*b^2*c^3*e^2*1*m^2*z + 27*a^5*b^2*c^2*e*1^2*m^2*z + 27*a^4 \\
& *b^3*c^2*h*j^2*1^2*z - 27*a^4*b^2*c^3*h^2*j^2*1*z + 27*a^3*b^4*c^2*e^2*1*m^ \\
& 2*z - 270*a^4*b^3*c^2*f*j^2*m^2*z - 270*a^4*b^2*c^3*f^2*j*m^2*z + 162*a^3*b \\
& ^4*c^2*f^2*j*m^2*z - 108*a^3*b^3*c^3*f^2*j^2*m*z - 27*a^4*b^2*c^3*h^2*j*k^2 \\
& *z - 27*a^4*b^2*c^3*g^2*j*1^2*z + 27*a^3*b^3*c^3*e^2*k^2*m*z + 27*a^3*b^3*c \\
& ^3*d^2*1^2*m*z + 27*a^2*b^5*c^2*f^2*j^2*m*z + 162*a^3*b^3*c^3*d^2*k*m^2*z - \\
& 27*a^4*b^3*c^2*d*k^2*m^2*z - 27*a^4*b^2*c^3*g*j^2*k^2*z + 27*a^3*b^3*c^3*g \\
& ^2*h^2*m*z - 27*a^2*b^5*c^2*d^2*k*m^2*z + 162*a^3*b^2*c^4*d^2*k^2*1*z - 108 \\
& *a^4*b^2*c^3*g*h^2*1^2*z - 27*a^4*b^2*c^3*e*j^2*1^2*z + 27*a^3*b^4*c^2*g*h^ \\
& 2*1^2*z + 27*a^3*b^2*c^4*e^2*j^2*1*z - 27*a^2*b^4*c^3*d^2*k^2*1*z - 162*a^3 \\
& *b^3*c^3*f^2*h*1^2*z + 162*a^3*b^3*c^3*e^2*h*m^2*z - 135*a^4*b^2*c^3*e*h^2* \\
& m^2*z + 135*a^3*b^2*c^4*f^2*h^2*1*z + 27*a^3*b^4*c^2*e*h^2*m^2*z - 27*a^3*b \\
& ^3*c^3*g^2*h*k^2*z - 27*a^3*b^2*c^4*e^2*j*k^2*z - 27*a^3*b^2*c^4*d^2*j*1^2* \\
& z + 27*a^2*b^5*c^2*f^2*h*1^2*z - 27*a^2*b^5*c^2*e^2*h*m^2*z - 27*a^2*b^4*c^ \\
& 3*f^2*h^2*1*z - 27*a^3*b^2*c^4*g^2*h^2*j*z + 27*a^2*b^3*c^4*e^2*g^2*m*z - 2 \\
& 7*a^2*b^3*c^4*d^2*j^2*k*z + 27*a^2*b^3*c^4*d^2*h^2*m*z + 351*a^3*b^2*c^4*d^ \\
& 2*g*m^2*z - 189*a^2*b^4*c^3*d^2*g*m^2*z + 162*a^3*b^3*c^3*d*g^2*m^2*z - 162 \\
& *a^3*b^2*c^4*e^2*g*1^2*z + 135*a^3*b^3*c^3*d*h^2*1^2*z + 135*a^3*b^2*c^4*f^ \\
& 2*g*k^2*z - 27*a^2*b^5*c^2*d*h^2*1^2*z - 27*a^2*b^5*c^2*d*g^2*m^2*z - 27*a^ \\
& 2*b^4*c^3*f^2*g*k^2*z + 27*a^2*b^4*c^3*e^2*g*1^2*z + 27*a^2*b^3*c^4*f^2*g^2 \\
& *k*z + 27*a^2*b^3*c^4*e^2*h^2*k*z + 135*a^3*b^2*c^4*e*f^2*1^2*z - 108*a^3*b \\
& ^2*c^4*e*g^2*k^2*z + 108*a^2*b^2*c^5*d^2*g^2*1*z + 27*a^3*b^2*c^4*e*h^2*j^2 \\
& *z + 27*a^2*b^4*c^3*e*g^2*k^2*z - 27*a^2*b^4*c^3*e*f^2*1^2*z - 27*a^2*b^3*c \\
& ^4*e^2*h*j^2*z - 27*a^2*b^2*c^5*e^2*f^2*1*z - 27*a^2*b^2*c^5*e^2*g^2*j*z - \\
& 27*a^2*b^2*c^5*d^2*h^2*j*z + 162*a^2*b^3*c^4*d*e^2*1^2*z - 135*a^2*b^2*c^5* \\
& d^2*g*j^2*z - 27*a^2*b^3*c^4*d*g^2*j^2*z + 27*a^2*b^3*c^4*d*f^2*k^2*z - 162 \\
& *a^2*b^2*c^5*d^2*e*k^2*z - 27*a^2*b^2*c^5*e*f^2*h^2*z - 72*a^7*c^2*k*1*m^3* \\
& z + 9*a^5*b^4*k*1*m^3*z + 72*a^6*c^3*j*k^3*m*z - 72*a^6*c^3*h*k*1^3*z - 72* \\
& a^6*c^3*f*1^3*m*z - 72*a^5*c^4*h^3*k*1*z - 72*a^5*c^4*h^3*j*m*z - 9*a^4*b^5 \\
& *h*k*m^3*z - 9*a^4*b^5*g*1*m^3*z - 144*a^6*c^3*f*j*m^3*z - 144*a^5*c^4*h*j^ \\
& 3*k*z - 144*a^5*c^4*g*j^3*1*z - 144*a^5*c^4*f*j^3*m*z - 144*a^4*c^5*f^3*j*m \\
& *z + 72*a^6*c^3*e*k*m^3*z + 72*a^6*c^3*d*1*m^3*z + 72*a^4*c^5*f^3*k*1*z + 7 \\
& 2*a^6*c^3*g*h*m^3*z + 18*b^6*c^3*d^3*j*m*z - 18*a^3*b^6*f*j*m^3*z - 9*b^6*c \\
& ^3*d^3*k*1*z + 9*a^3*b^6*e*k*m^3*z + 9*a^3*b^6*d*1*m^3*z + 144*a^5*c^4*d*k^ \\
& 3*1*z + 144*a^3*c^6*d^3*k*1*z - 72*a^5*c^4*f*j*k^3*z - 72*a^3*c^6*d^3*j*m*z \\
& + 9*a^3*b^6*g*h*m^3*z - 72*a^5*c^4*g*h*k^3*z - 72*a^4*c^5*g^3*h*k*z - 72*a \\
& ^4*c^5*f*g^3*m*z - 108*a^5*b*c^3*j^4*m*z + 63*a^6*b^2*c*j*m^4*z + 36*a^6*b* \\
& c^2*k*1^4*z - 9*a^5*b^3*c*k*1^4*z - 144*a^5*c^4*e*g*1^3*z - 144*a^3*c^6*e^3 \\
& *g*1*z + 72*a^5*c^4*d*h*1^3*z + 72*a^4*c^5*f*h^3*j*z + 72*a^4*c^5*e*h^3*k*z \\
& + 72*a^4*c^5*d*h^3*1*z + 72*a^3*c^6*e^3*h*k*z + 72*a^3*c^6*e^3*f*m*z - 18* \\
& b^5*c^4*d^3*f*m*z + 9*b^5*c^4*d^3*h*k*z + 9*b^5*c^4*d^3*g*1*z - 9*a^2*b^7*e \\
& *g*m^3*z - 9*a^2*b^7*d*h*m^3*z + 144*a^4*c^5*e*g*j^3*z + 144*a^4*c^5*d*h*j^ \\
& 3*z - 72*a^5*c^4*d*e*m^3*z - 72*a^3*c^6*e*f^3*k*z - 72*a^3*c^6*d*f^3*1*z + \\
& 144*a^6*b*c^2*f*m^4*z - 108*a^5*b^3*c*f*m^4*z - 72*a^3*c^6*f^3*g*h*z + 36*a
\end{aligned}$$

$$\begin{aligned}
& ^5b^3c^3hk^4z - 36a^3b^3c^5f^4m^2z + 18b^4c^5d^3f^2j^2z - 9b^4c^5d^3e^2k^2z + 9a^4b^4c^3g^2l^4z - 144a^4c^5d^2e^2k^3z - 144a^2c^7d^3e^2k^2z + 72a^2c^7d^3f^2j^2z - 9b^4c^5d^3g^2h^2z + 72a^3c^6d^2g^3h^2z + 72a^2c^7d^3g^2h^2z - 72a^5b^3c^3d^2l^4z - 72a^4b^3c^4f^2j^4z + 45a^2b^2c^6d^4l^2z - 36a^2b^3c^6e^4k^2z - 9a^3b^5c^2d^2l^4z + 9a^2b^3c^5e^4k^2z - 72a^3c^6d^2e^2h^3z - 72a^2c^7d^2e^3h^2z + 9b^3c^6d^3e^2g^2z + 72a^2c^7d^2e^2f^3z + 36a^3b^3c^5d^2h^4z - 9a^2b^2c^6e^4g^2z + 36a^2b^3c^7d^3f^2z + 90a^5b^2c^2j^3m^2z + 45a^5b^2c^2j^2l^3z + 9a^4b^3c^2j^2k^3z - 9a^4b^3c^2h^3m^2z - 45a^4b^2c^3g^3m^2z + 9a^3b^4c^2g^3m^2z + 198a^4b^3c^2f^2m^3z - 108a^3b^3c^3f^3m^2z + 18a^2b^5c^2f^3m^2z - 117a^4b^2c^3f^2l^3z + 117a^3b^2c^4e^3m^2z + 63a^3b^4c^2f^2l^3z - 63a^2b^4c^3e^3m^2z - 171a^2b^3c^4d^3m^2z - 54a^3b^3c^3f^2k^3z + 9a^3b^2c^4g^3j^2z + 9a^2b^5c^2f^2k^3z + 18a^3b^2c^4f^2j^3z + 18a^2b^3c^4f^3j^2z - 9a^2b^4c^3f^2j^3z - 45a^2b^2c^5e^3j^2z + 9a^2b^3c^4f^2h^3z - 9a^2b^2c^5f^2g^3z + 9a^2b^8d^2e^2m^3z - 36a^2b^3c^7d^4h^2z - 108a^6c^3h^2l^2m^2z + 108a^6c^3j^2k^2l^2z - 108a^6c^3g^2k^2m^2z - 108a^6c^3e^2l^2m^2z + 108a^5c^4h^2j^2l^2z + 108a^5c^4e^2l^2m^2z + 216a^5c^4f^2j^2m^2z + 108a^5c^4h^2j^2k^2z + 108a^5c^4g^2j^2l^2z + 108a^5c^4g^2j^2k^2z - 216a^4c^5d^2k^2l^2z + 108a^5c^4e^2j^2l^2z - 108a^4c^5e^2j^2l^2z - 9a^6b^2c^2l^3m^2z + 108a^5c^4e^2h^2m^2z - 108a^4c^5f^2h^2l^2z + 108a^4c^5e^2j^2k^2z + 108a^4c^5d^2j^2l^2z - 144a^6b^3c^2j^2m^3z + 108a^4c^5g^2h^2j^2z - 27a^4b^4c^2j^3m^2z + 27a^4b^3c^2j^4m^2z + 9a^5b^2c^2k^4l^2z + 216a^4c^5e^2g^2l^2z - 108a^4c^5f^2g^2k^2z - 108a^4c^5d^2g^2m^2z - 9a^4b^4c^2j^2l^3z - 108a^4c^5e^2h^2j^2z - 108a^4c^5e^2f^2l^2z + 108a^3c^6e^2f^2l^2z - 36a^5b^3c^3j^2k^3z + 36a^5b^3c^3h^3m^2z + 108a^3c^6e^2g^2j^2z + 108a^3c^6d^2h^2j^2z - 216a^5b^3c^3f^2m^3z + 144a^4b^3c^4f^3m^2z + 108a^3c^6d^2g^2j^2z - 72a^3b^5c^2f^2m^3z - 45a^5b^2c^2g^2l^4z - 9a^4b^3c^2h^2k^4z - 9a^3b^2c^4g^4l^2z + 9a^2b^3c^4f^4m^2z + 216a^3c^6d^2e^2k^2z - 9a^2b^6c^2f^2l^3z + 9a^2b^6c^2e^3m^2z + 108a^3c^6e^2f^2h^2z + 108a^3b^3c^5d^3m^2z + 108a^2c^7d^2e^2j^2z + 72a^4b^3c^4f^2k^3z + 72a^2b^5c^3d^3m^2z - 72a^3b^3c^5f^3j^2z + 54a^4b^3c^2d^2l^4z - 45a^4b^2c^3e^2k^4z + 18a^3b^3c^3f^2j^4z + 9a^3b^4c^2e^2k^4z - 9a^2b^2c^5f^4j^2z - 108a^2c^7d^2f^2g^2z + 9a^3b^2c^4g^2h^4z + 9a^2b^4c^4e^3j^2z - 72a^2b^3c^6d^3j^2z + 54a^2b^3c^5d^3j^2z - 36a^3b^3c^5f^2h^3z - 9a^2b^3c^4d^2h^4z + 9a^2b^2c^5e^2g^4z + 9a^2b^2c^6e^3f^2z + 36a^7c^2l^3m^2z + 72a^6c^3j^3m^2z - 36a^6c^3j^2l^3z + 9a^4b^5j^2m^3z + 36a^5c^4g^3m^2z + 36a^5c^4f^2l^3z - 36a^4c^5e^3m^2z - 9b^7c^2d^3m^2z + 9a^2b^7f^2m^3z - 36a^4c^5g^3j^2z + 72a^4c^5f^2j^3z + 36a^3c^6e^3j^2z - 9b^5c^4d^3j^2z + 36a^3c^6f^2g^3z - 9a^4b^2c^3j^5z - 36a^2c^7e^3f^2z - 9b^3c^6d^3f^2z + 36a^7c^2j^2m^4z - 36a^6c^3k^4l^2z - 18a^5b^4j^2m^4z + 36a^6c^3g^2l^4z + 36a^4c^5g^4l^2z + 18a^4b^5f^2m^4z - 9b^4c^5d^4l^2z + 36a^5c^4e^2k^4z + 36a^3c^6f^4j^2z - 36a^2c^7d^4l^2z - 36a^4c^5g^2h^4z + 9b^3c^6d^4h^2z - 36a^3c^6e^2g^4z + 36a^2c^7e^4g^2z - 9b^2c^7d^4e^2z - 36a^7b^3c^5m^5z + 36a^8d^4e^2z + 9a^6b^3m^5z + 36a^5c^4j^5z + 9a^4b^3c^3g^2h^2j^2k^2l^2m - 9a^3b^4c^2e^2g^2j^2k^2l^2m - 9a^3b^4c^2d^2h^2j^2k^2l^2m - 9a^3b^4c^2f^2g^2h^2k^2l^2m + 36a^4b^3c^3d^2e^2j^2k^2l^2m + 9a^2b^5c^2d^2e^2j^2k^2l^2m + 36a^4b^3c^3e^2f^2h^2j^2k^2l^2m + 36a^4b^3c^3e^2f^2g^2k^2l^2m + 36a^4b^3c^3d^2f^2h^2k^2l^2m + 9a^2b^5c^2e^2f^2g^2k^2l^2m + 9a^2b^5c^2d^2e^2f^2j^2k^2l^2m + 36a^3b^3c^4d^2e^2f^2h^2k^2l^2m + 36a^3b^3c^4d^2e^2f^2g^2l^2m + 9a^2b^5c^2d^2e^2f^2h^2k^2l^2m + 9a^2b^5c^2d^2e^2f^2g^2l^2m - 9a^2b^4c^3d^2e^2f^2h^2j^2k^2l^2m - 9a^2b^4c^3d^2e^2f^2g^2h^2j^2k^2l^2m + 9a^2b^3c^4d^2e^2f^2g^2h^2j^2k^2l^2m - 9a^2b^6c^2d^2e^2f^2k^2l^2m + 18a^4b^2c^2e^2g^2j^2k^2l^2m + 18a^4b^2c^2d^2h^2j^2k^2l^2m + 18a^4b^2c^2f^2g^2h^2k^2l^2m - 36a^3b^3c^2d^2e^2j^2k^2l^2m - 36a^3b^3c^2e^2f^2g^2k^2l^2m - 36a^3b^3c^2d^2f^2h^2k^2l^2m + 9a^3b^3c^2f^2g^2h^2j^2k^2l^2m +
\end{aligned}$$

$$\begin{aligned}
& 9a^3b^3c^2 * e * g * h * j * k * m + 9a^3b^3c^2 * d * g * h * j * l * m - 108a^3b^2c^3 * d * e * f * k * l * m + 54a^2b^4c^2 * d * e * f * k * l * m - 36a^3b^2c^3 * d * f * g * j * k * m + 18a^3b^2c^3 * e * f * g * j * k * l + 18a^3b^2c^3 * d * f * h * j * k * l + 18a^3b^2c^3 * d * e * h * j * k * m + 18a^3b^2c^3 * d * e * g * j * l * m - 9a^2b^4c^2 * e * f * g * j * k * l - 9a^2b^4c^2 * d * f * h * j * k * l - 9a^2b^4c^2 * d * e * h * j * k * m - 9a^2b^4c^2 * d * e * g * j * l * m + 18a^3b^2c^3 * e * f * g * h * k * m + 18a^3b^2c^3 * d * f * g * h * l * m - 9a^2b^4c^2 * e * f * g * h * k * m - 9a^2b^4c^2 * d * f * g * h * l * m - 36a^2b^3c^3 * d * e * f * j * k * l - 36a^2b^3c^3 * d * e * f * h * k * m - 36a^2b^3c^3 * d * e * f * g * l * m + 9a^2b^3c^3 * e * f * g * h * j * k + 9a^2b^3c^3 * d * f * g * h * j * l + 9a^2b^3c^3 * d * e * g * h * j * m + 18a^2b^2c^4 * d * e * f * h * j * k + 18a^2b^2c^4 * d * e * f * g * j * l + 18a^2b^2c^4 * d * e * f * g * h * m - 9a^5b^2c^3 * h * j * k^2 * l * m - 9a^5b^2c^3 * g * j * k * l^2 * m + 27a^5b^2c^3 * f * j * k * l * m^2 - 9a^4b^3c^3 * f * j^2 * k * l * m + 9a^4b^3c^3 * f^2 * j * k * l * m - 18a^5b^2c^2 * e * j * k^2 * l * m - 9a^5b^2c^2 * g * h * k * l * m^2 + 9a^4b^3c^2 * e * j * k^2 * l * m - 18a^5b^2c^2 * f * h * k^2 * l * m - 18a^5b^2c^2 * d * j * k * l^2 * m + 9a^4b^3c^2 * f * h * k^2 * l * m + 9a^4b^3c^2 * d * j * k * l^2 * m + 36a^5b^2c^2 * e * h * k * l^2 * m - 36a^4b^3c^3 * e^2 * h * k * l * m + 18a^5b^2c^2 * f * h * j * l^2 * m - 18a^5b^2c^2 * f * g * k * l^2 * m - 18a^4b^3c^2 * e * h * k * l^2 * m + 9a^4b^3c^2 * f * g * k * l^2 * m + 9a^3b^4c^2 * e * h^2 * k * l * m - 9a^2b^5c^2 * e^2 * h * k * l * m - 54a^5b^2c^2 * e * h * j * l * m^2 - 18a^5b^2c^2 * e * g * k * l * m^2 - 18a^5b^2c^2 * d * h * k * l * m^2 + 18a^4b^3c^2 * e * h * j * l * m^2 - 9a^4b^3c^2 * f * h * j * k * m^2 - 9a^4b^3c^2 * f * g * j * l * m^2 + 9a^4b^3c^2 * e * g * k * l * m^2 + 9a^4b^3c^2 * d * h * k * l * m^2 + 18a^4b^3c^2 * f * g^2 * j * k * m - 18a^4b^3c^2 * e * g^2 * j * l * m + 18a^3b^4c^2 * d * g * k^2 * l * m - 9a^3b^4c^2 * c * e * f * k^2 * l * m - 9a^2b^5c^2 * d * g^2 * k * l * m - 18a^4b^3c^2 * f * g^2 * h * l * m - 18a^4b^3c^2 * d * h^2 * j * k * m - 9a^3b^4c^2 * d * f * k * l^2 * m - 54a^4b^3c^2 * d * g * j^2 * k * m - 18a^4b^3c^2 * f * g * h^2 * k * m - 18a^4b^3c^2 * e * g * j^2 * k * l - 18a^4b^3c^2 * d * h * j^2 * k * l - 18a^3b^4c^2 * d * g * j * k * m^2 + 9a^3b^4c^2 * e * f * j * k * m^2 + 9a^3b^4c^2 * d * f * j * l * m^2 - 9a^3b^4c^2 * d * e * k * l * m^2 - 54a^3b^3c^4 * d^2 * f * j * k * m + 36a^4b^3c^3 * d * g * j * k^2 * l - 36a^3b^3c^4 * d^2 * g * j * k * l - 18a^4b^3c^3 * e * f * j * k^2 * l + 18a^4b^3c^3 * d * f * j * k^2 * m - 18a^3b^3c^4 * d^2 * e * j * l * m + 9a^3b^4c^2 * f * g * h * j * m^2 - 9a * a * b^5c^2 * d^2 * g * j * k * l + 36a^4b^3c^3 * d * g * h * k^2 * m - 36a^3b^3c^4 * d^2 * g * h * k * m + 18a^4b^3c^3 * e * g * h * k^2 * l - 18a^4b^3c^3 * e * f * h * k^2 * m - 18a^4b^3c^3 * d * f * j * k * l^2 - 18a^3b^3c^4 * d^2 * f * h * l * m - 18a^3b^3c^4 * d * e^2 * j * k * m - 9a * a * b^5c^2 * d^2 * g * h * k * m - 54a^4b^3c^3 * d * g * h * k * l^2 - 54a^3b^3c^4 * e^2 * f * h * j * m - 18a^4b^3c^3 * d * f * g * l^2 * m - 18a^3b^3c^4 * e^2 * f * g * k * m - 54a^4b^3c^3 * d * f * g * k * m^2 - 36a^4b^3c^3 * e * f * g * j * m^2 - 36a^4b^3c^3 * d * f * h * j * m^2 + 36a^3b^3c^4 * e * f^2 * g * j * m + 36a^3b^3c^4 * d * f^2 * h * j * m - 18a^4b^3c^3 * d * e * h * k * m^2 - 18a^4b^3c^3 * d * e * g * l * m^2 + 18a^3b^3c^4 * e * f^2 * h * j * l - 18a^3b^3c^4 * e * f^2 * g * k * l - 18a^3b^3c^4 * d * f^2 * h * k * l + 18a^3b^3c^4 * d * f^2 * g * k * m - 9a^2b^5c^2 * e * f * g * j * m^2 - 9a^2b^5c^2 * d * f * h * j * m^2 - 54a^3b^3c^4 * d * f * g^2 * j * m - 18a^3b^3c^4 * e * f * g^2 * j * l - 18a * a * b^4c^3 * d^2 * f * g * j * m + 9a * a * b^4c^3 * d^2 * g * h * j * k + 9a * a * b^4c^3 * d^2 * f * g * k * l + 9a * a * b^4c^3 * d^2 * e * g * k * m - 9a * a * b^4c^3 * d^2 * e * f * l * m - 18a^3b^3c^4 * e * f * g^2 * h * m - 18a^3b^3c^4 * d * f * h^2 * j * k - 9a * a * b^4c^3 * d * e^2 * f * k * m + 18a^3b^3c^4 * d * f * g * j^2 * k - 18a^3b^3c^4 * d * f * g * h^2 * m - 18a^3b^3c^4 * d * e * h * j^2 * k - 18a^3b^3c^4 * d * e * g * j^2 * l + 18a * a * b^4c^3 * d * e * f^2 * j * m - 9a * a * b^5c^2 * d * e * f * j^2 * m - 9a * a * b^4c^3 * d * e * f^2 * k * l - 18a^2b^3c^5 * d^2 * e * f * j * l - 9a * a * b^3c^4 * d^2 * e * g * j * k + 9a * a * b^3c^4 * d^2 * e * f * j * l - 54a^2b^3c^5 * d^2 * e * g * h * l - 18a^2b^3c^5 * d^2 * e * f * h * m - 18a^2b^3c^5 * d * e^2 * f * j * k + 18a * a * b^3c^4 * d^2 * e * g * h * l - 9a * a * b^3c^4 * d^2 * f * g * h * k + 9a * a * b^3c^4 * d^2 * e * f * h * m + 9a * a * b^3c^4 * d * e^2 * f * j * k - 36a^3b^3c^4 * d * e * f * h * l^2 + 36a^2b^3c^5 * d * e^2 * f * h * l + 18a^2b^3c^5 * d * e^2 * g * h * k - 18a^2b^3c^5 * d * e^2 * f * g * m - 18a * a * b^3c^4 * d * e^2 * f * h * l - 9a * a * b^5c^2 * d * e * f * h * l^2 + 9a * a * b^4c^3 * d * e * f * h^2 * l + 9a * a * b^3c^4 * d * e^2 * f * g * m - 18a^2b^3c^5 * d * e * f^2 * h * k - 18a^2b^3c^5 * d * e * f^2 * g * l + 9a * a * b^3c^4 * d * e * f^2 * h * k + 9a * a * b^3c^4 * d * e * f^2 * g * l + 27a * a * b^2c^5 * d^2 * e * f * g * k + 9a * a * b^4c^3 * d * e * f * g * k^2 - 9a * a * b^3c^4 * d * e * f * g^2 * k - 9a * a * b^2c^5 * d^2 * e * f * h * j - 9a * a * b^2c^5 * d * e^2 * f * g * j - 9a * a * b^2c^5 * d * e * f^2 * g * h + 72a^4c^4 * d * f * g * j * k * m + 72a^4c^4 * d * e * f * k * l * m + 9a * a * b^6c^2 * d^2 * g * k * l * m + 9a * a * b^6c^2 * d * e * f * j * m^2 - 27a^4b^2c^2 * f^2 * j * k * l * m - 9a^4b^2c^2 * g^2 * h * j * l * m + 36a^3b^3c^2 * e^2 * h * k * l * m - 18a^4b^2c^2 * e * h^2 * k * l * m - 9a^4b^2c^2 * g^2 * h^2 * j * k * m + 18a^4b^2c^2 * f * h * j^2 * k * m + 18a^4b^2c^2 * f * g * j^2 * l * m - 18a^4b^2c^2 * e * h * j^2 * l * m - 9a^4b^2c^2 * g * h * j^2 * k * l - 9a^3b^3c^2 * f^2 * h * j * k * m - 9a^3b^3c^2 * f^2 * g * j * l * m - 63a^4b^2c^2 * d * g * k^2 *
\end{aligned}$$



$$\begin{aligned}
& 1*m + 63*a^3*b^2*c^3*d^2*g*k^1*m - 45*a^2*b^4*c^2*d^2*g*k^1*m + 36*a^4*b^2*c^2*e*f*k^2*1*m + 27*a^3*b^3*c^2*d*g^2*k^1*m - 9*a^4*b^2*c^2*f*h*j*k^2*1 - \\
& 9*a^4*b^2*c^2*e*h*j*k^2*m + 9*a^3*b^3*c^2*e*g^2*j*1*m - 9*a^3*b^2*c^3*d^2*h*j*1*m + 36*a^4*b^2*c^2*d*f*k^1^2*m + 27*a^4*b^2*c^2*e*h*j*k^1^2 - 27*a^3*b^2*c^3*e^2*h*j*k^1 - \\
& 18*a^3*b^2*c^3*e^2*f*j*1*m - 9*a^4*b^2*c^2*f*g*j*k^1^2 - 9*a^4*b^2*c^2*d*g*j*1^2*m + 9*a^3*b^3*c^2*f*g^2*h*1*m - 9*a^3*b^3*c^2*e*h^2*j*k*1 + 9*a^3*b^3*c^2*d*h^2*j*k*m - 9*a^3*b^2*c^3*e^2*g*j*k*m + 9*a^2*b^4*c^2*e^2*h*j*k^1 + 72*a^4*b^2*c^2*d*g*j*k*m^2 + 36*a^4*b^2*c^2*d*e*k^1*m^2 + 27*a^4*b^2*c^2*e*g*h*1^2*m - 27*a^4*b^2*c^2*e*f*j*k*m^2 - 27*a^4*b^2*c^2*d*f*j*1*m^2 - 27*a^3*b^2*c^3*e^2*g*h*1*m + 27*a^3*b^2*c^3*e*f^2*j*k*m + 27*a^3*b^2*c^3*d*f^2*j*1*m + 18*a^3*b^3*c^2*d*g*j^2*k*m + 9*a^3*b^3*c^2*f*g*h^2*k*m + 9*a^3*b^3*c^2*e*g*j^2*k*1 - 9*a^3*b^3*c^2*e*g*h^2*1*m - 9*a^3*b^3*c^2*e*f*j^2*k*m + 9*a^3*b^3*c^2*d*h*j^2*k*1 - 9*a^3*b^3*c^2*d*f*j^2*1*m + 9*a^2*b^4*c^2*e^2*g*h*1*m + 36*a^2*b^3*c^3*d^2*g*j*k^1 - 27*a^4*b^2*c^2*f*g*h*j*m^2 + 27*a^3*b^2*c^3*f^2*g*h*j*m - 18*a^4*b^2*c^2*e*f*h*1*m^2 - 18*a^3*b^3*c^2*d*g*j*k^2*1 - 18*a^3*b^2*c^3*d*g^2*j*k^1 + 18*a^2*b^3*c^3*d^2*f*j*k*m - 9*a^4*b^2*c^2*e*g*h*k*m^2 - 9*a^4*b^2*c^2*d*g*h*1*m^2 - 9*a^3*b^3*c^2*f*g*h*j^2*m + 9*a^3*b^3*c^2*e*f*j*k^2*1 - 9*a^3*b^2*c^3*f^2*g*h*k*1 + 9*a^2*b^4*c^2*d*g^2*j*k^1 + 9*a^2*b^3*c^3*d^2*e*j*1*m + 36*a^3*b^2*c^3*e*f*g^2*1*m + 36*a^2*b^3*c^3*d^2*g*h*k*m - 18*a^3*b^3*c^2*d*g*h*k^2*m - 18*a^3*b^2*c^3*d*g^2*h*k*m + 9*a^3*b^3*c^2*e*f*h*k^2*m + 9*a^3*b^3*c^2*d*f*j*k^1^2 - 9*a^3*b^2*c^3*f*g^2*h*j*1 - 9*a^3*b^2*c^3*e*g^2*h*j*m - 9*a^2*b^4*c^2*e*f*g^2*1*m + 9*a^2*b^4*c^2*d*g^2*h*k*m + 9*a^2*b^3*c^3*d^2*f*h*1*m + 9*a^2*b^3*c^3*d*e^2*j*k*m + 36*a^3*b^2*c^3*d*f*h^2*k*m + 36*a^3*b^2*c^3*d*e*j^2*k*1 + 18*a^3*b^3*c^2*d*g*h*k^1^2 + 18*a^3*b^2*c^3*e*g*h^2*j*1 + 18*a^3*b^2*c^3*e*f*h^2*k*1 - 18*a^3*b^2*c^3*e*f*h^2*j*m - 18*a^3*b^2*c^3*d*g*h^2*k*1 + 18*a^3*b^2*c^3*d*e*h^2*1*m + 18*a^2*b^3*c^3*e^2*f*h*j*m - 9*a^3*b^3*c^2*e*g*h*j*1^2 - 9*a^3*b^3*c^2*e*f*h*k^1^2 + 9*a^3*b^3*c^2*d*f*g*1^2*m - 9*a^3*b^3*c^2*d*e*h*1^2*m - 9*a^3*b^2*c^3*f*g*h^2*j*k - 9*a^3*b^2*c^3*d*g*h^2*j*m - 9*a^2*b^4*c^2*d*f*h^2*k*m - 9*a^2*b^4*c^2*d*e*j^2*k*1 - 9*a^2*b^3*c^3*e^2*g*h*j*1 - 9*a^2*b^3*c^3*e^2*f*h*k*1 + 9*a^2*b^3*c^3*e^2*f*g*k*m - 9*a^2*b^3*c^3*d*e^2*h*1*m + 36*a^3*b^3*c^2*e*f*g*j*m^2 + 36*a^3*b^3*c^2*d*f*h*j*m^2 + 18*a^3*b^3*c^2*d*f*g*k*m^2 - 18*a^3*b^2*c^3*e*f*g*j^2*m - 18*a^3*b^2*c^3*d*f*h*j^2*m - 18*a^2*b^3*c^3*e*f^2*g*j*m - 18*a^2*b^3*c^3*d*f^2*h*j*m + 9*a^3*b^3*c^2*d*e*h*k*m^2 + 9*a^3*b^3*c^2*d*e*g*1*m^2 - 9*a^3*b^2*c^3*e*g*h*j^2*k - 9*a^3*b^2*c^3*d*g*h*j^2*1 + 9*a^2*b^4*c^2*e*f*g*j^2*m + 9*a^2*b^4*c^2*d*f*h*j^2*m + 9*a^2*b^3*c^3*e*f^2*g*k*1 + 9*a^2*b^3*c^3*d*f^2*h*k*1 + 72*a^2*b^2*c^4*d^2*f*g*j*m + 36*a^2*b^2*c^4*d^2*e*f*1*m + 27*a^3*b^2*c^3*d*g*h*j*k^2 + 27*a^3*b^2*c^3*d*f*g*k^2*1 + 27*a^3*b^2*c^3*d*e*g*k^2*m - 27*a^2*b^2*c^4*d^2*g*h*j*k - 27*a^2*b^2*c^4*d^2*f*g*k*1 - 27*a^2*b^2*c^4*d^2*e*g*k*m + 18*a^2*b^3*c^3*d*f*g^2*j*m - 18*a^2*b^2*c^4*d^2*e*h*k*1 - 9*a^3*b^2*c^3*e*f*h*j*k^2 + 9*a^2*b^3*c^3*e*f*g^2*j*1 - 9*a^2*b^3*c^3*d*g^2*h*j*k - 9*a^2*b^3*c^3*d*f*g^2*k*1 - 9*a^2*b^3*c^3*d*e*g^2*k*m - 9*a^2*b^2*c^4*d^2*f*h*j*1 - 9*a^2*b^2*c^4*d^2*e*h*j*m + 36*a^2*b^2*c^4*d*e^2*f*k*m - 27*a^3*b^2*c^3*d*e*h*j*1^2 + 27*a^2*b^2*c^4*d*e^2*h*j*1 - 18*a^3*b^2*c^3*d*e*g*k^1^2 - 9*a^3*b^2*c^3*d*f*g*j*1^2 + 9*a^2*b^4*c^2*d*e*h*j*1^2 + 9*a^2*b^3*c^3*e*f*g^2*h*m + 9*a^2*b^3*c^3*d*f*h^2*j*k - 9*a^2*b^3*c^3*d*e*h^2*j*1 - 9*a^2*b^2*c^4*e^2*f*g*j*k - 9*a^2*b^2*c^4*d*e^2*g*j*m + 63*a^3*b^2*c^3*d*e*f*j*m^2 - 63*a^2*b^2*c^4*d*e*f^2*j*m - 45*a^2*b^4*c^2*d*e*f*j*m^2 + 36*a^2*b^2*c^4*d*e*f^2*k*1 - 27*a^3*b^2*c^3*e*f*g*h*1^2 + 27*a^2*b^3*c^3*d*e*f*j^2*m + 27*a^2*b^2*c^4*e^2*f*g*h*1 + 9*a^2*b^4*c^2*e*f*g*h*1^2 - 9*a^2*b^3*c^3*e*f*g*h^2*1 + 9*a^2*b^3*c^3*d*f*g*h^2*m + 9*a^2*b^3*c^3*d*e*h*j^2*k + 9*a^2*b^3*c^3*d*e*g*j^2*1 + 18*a^2*b^2*c^4*d*e*g^2*j*k - 9*a^3*b^2*c^3*d*e*g*h*m^2 - 9*a^2*b^3*c^3*d*e*g*j*k^2 - 9*a^2*b^2*c^4*e*f^2*g*h*k - 9*a^2*b^2*c^4*d*f^2*g*h*1 + 18*a^2*b^2*c^4*d*f*g^2*h*k - 18*a^2*b^2*c^4*d*e*g^2*h*1 - 9*a^2*b^3*c^3*d*f*g*h*k^2 - 9*a^2*b^2*c^4*e*f*g^2*h*j + 36*a^2*b^3*c^3*d*e*f*h*1^2 - 18*a^2*b^2*c^4*d*e*f*h^2*1 - 9*a^2*b^2*c^4*d*f*g*h^2*j - 9*a^2*b^2*c^4*d*e*g*h*j^2 - 27*a^2*b^2*c^4*d*e*f*g*k^2 + 18*a^2*b^2*c^4*d^2*f*h*k^2 - 9*a^2*b^3*c^3*e*f*g^2*k^2 - 9*a^2*b^2*c^4*e^2*f*h*j^2 - 9*a^2*b^2*c^4*d*f^2*h^2*k + 45*a^2*
\end{aligned}$$

$$\begin{aligned}
& b^3c^3d^2ef^2m^2 + 36a^2b^2c^4d^2efg^2l^2 + 9a^2b^3c^3d^2efg^2l^2 \\
& + 9a^2b^2c^4ef^2g^2j^2 + 9a^2b^2c^4d^2ef^2h^2j^2 - 9a^2b^2c^4d^2ef^2g^2j^2 - 12a^6b^3c^3d^2ef^2g^2j^2 \\
& - 36a^2b^2c^4d^2ef^2g^2j^2 - 12a^6b^3c^3d^2ef^2g^2j^2 - 12a^6b^3c^3d^2ef^2g^2j^2 \\
& + 3a^2b^6c^3d^2ef^2g^2j^2 - 12a^6b^3c^3d^2ef^2g^2j^2 - 12a^6b^3c^3d^2ef^2g^2j^2 \\
& + 9a^5b^2c^2h^2k^2l^2m + 18a^5b^2c^2g^2k^2l^2m - 9a^5b^2c^2h^2j^2k^2l^2m + 9a^5b^2c^2h^2j^2k^2l^2m \\
& - 9a^4b^3c^2g^2k^2l^2m - 3a^4b^2c^2g^3k^2l^2m + 18a^5b^2c^2f^2k^2l^2m + 15a^3b^3c^2f^3k^2l^2m + 9a^5b^2c^2h^2j^2k^2l^2m \\
& + 9a^5b^2c^2g^2j^2k^2l^2m - 9a^5b^2c^2f^2k^2l^2m + 9a^5b^2c^2h^2j^2k^2l^2m + 9a^5b^2c^2g^2j^2k^2l^2m \\
& - 9a^4b^3c^2f^2k^2l^2m + 36a^3b^2c^3e^3k^2l^2m - 27a^5b^2c^2g^2j^2k^2l^2m - 18a^5b^2c^2h^2j^2k^2l^2m \\
& - 18a^2b^4c^2e^3k^2l^2m - 9a^5b^2c^2g^2j^2k^2l^2m - 9a^5b^2c^2e^3k^2l^2m + 9a^5b^2c^2h^2j^2k^2l^2m \\
& + 9a^5b^2c^2g^2j^2k^2l^2m + 9a^4b^3c^2g^2j^2k^2l^2m + 9a^4b^3c^2g^2j^2k^2l^2m + 9a^4b^3c^2g^2j^2k^2l^2m \\
& + 9a^3b^4c^2e^2k^2l^2m + 3a^4b^2c^2h^3j^2k^2l^2m - 54a^4b^3c^3d^2k^2l^2m - 51a^2b^3c^3d^3k^2l^2m \\
& - 27a^4b^3c^3e^2j^2k^2l^2m - 18a^5b^2c^2g^2h^2k^2l^2m - 9a^5b^2c^2e^3j^2k^2l^2m - 9a^5b^2c^2d^3k^2l^2m \\
& + 9a^5b^2c^2g^2h^2k^2l^2m + 9a^5b^2c^2g^2j^2k^2l^2m + 9a^5b^2c^2e^3j^2k^2l^2m - 9a^3b^4c^2e^2j^2k^2l^2m \\
& - 9a^2b^5c^2d^2k^2l^2m + 3a^4b^2c^2g^2h^3k^2l^2m - 3a^3b^3c^2g^3j^2k^2l^2m + 18a^5b^2c^2e^3j^2k^2l^2m \\
& + 18a^5b^2c^2d^3j^2k^2l^2m + 18a^4b^3c^3f^2j^2k^2l^2m + 9a^5b^2c^2g^2h^2k^2l^2m + 9a^5b^2c^2f^2h^2k^2l^2m \\
& + 9a^5b^2c^2f^2j^2k^2l^2m - 9a^4b^3c^2e^3j^2k^2l^2m - 9a^4b^3c^2d^3j^2k^2l^2m + 9a^4b^2c^2f^2j^3k^2l^2m \\
& + 9a^4b^2c^2e^3j^3k^2l^2m + 9a^4b^2c^2d^3j^3k^2l^2m + 9a^4b^2c^3f^2h^2k^2l^2m + 9a^4b^2c^3e^2j^2k^2l^2m \\
& + 9a^4b^2c^3d^2j^2k^2l^2m - 3a^3b^3c^2g^3h^2k^2l^2m - 3a^3b^2c^3f^3j^2k^2l^2m + 3a^2b^4c^2f^3j^2k^2l^2m \\
& + 45a^4b^3c^3d^2j^2k^2l^2m - 27a^5b^2c^2d^3j^2k^2l^2m + 18a^5b^2c^2g^2h^2j^2k^2l^2m + 18a^4b^3c^3e^2j^2k^2l^2m \\
& + 15a^2b^3c^3e^3j^2k^2l^2m - 12a^3b^2c^3f^3h^2k^2l^2m - 12a^3b^2c^3f^3g^2k^2l^2m + 9a^5b^2c^2g^2h^2k^2l^2m \\
& - 9a^4b^3c^3g^2h^2j^2k^2l^2m + 9a^4b^3c^3d^2j^2k^2l^2m + 9a^4b^2c^2g^2h^2j^2k^2l^2m + 9a^4b^2c^2g^2h^2j^2k^2l^2m \\
& + 9a^2b^5c^2d^2j^2k^2l^2m + 3a^2b^4c^2f^3h^2k^2l^2m + 3a^2b^4c^2f^3g^2k^2l^2m + 36a^2b^2c^4d^3j^2k^2l^2m \\
& + 18a^4b^3c^3e^2g^2k^2l^2m + 15a^2b^3c^3e^3g^2k^2l^2m + 12a^4b^2c^2d^3j^2k^2l^2m + 9a^5b^2c^2f^2g^2k^2l^2m \\
& + 9a^5b^2c^2e^3h^2k^2l^2m + 9a^4b^3c^3g^2h^2j^2k^2l^2m + 9a^4b^3c^3f^2h^2k^2l^2m + 9a^4b^3c^3f^2g^2k^2l^2m \\
& + 9a^4b^3c^3d^2h^2k^2l^2m - 9a^3b^3c^2e^3h^2k^2l^2m + 6a^2b^3c^3e^3h^2k^2l^2m + 45a^4b^3c^3e^2h^2j^2k^2l^2m \\
& + 36a^2b^2c^4d^3h^2k^2l^2m - 33a^3b^2c^3d^2g^3k^2l^2m - 27a^4b^3c^3f^2h^2j^2k^2l^2m - 27a^4b^3c^3e^2f^2k^2l^2m \\
& - 27a^4b^3c^3e^2h^2j^2k^2l^2m - 18a^4b^3c^3g^2h^2j^2k^2l^2m - 18a^4b^3c^3f^2g^2k^2l^2m - 18a^4b^3c^3e^2g^2k^2l^2m \\
& - 18a^3b^3c^4d^2g^2k^2l^2m + 12a^4b^2c^2d^2h^2k^3m + 9a^5b^2c^2e^2f^2l^2m^2 + 9a^5b^2c^2d^2g^2l^2m^2 + 9a^4b^2c^3f^2g^2k^2l^2m \\
& + 9a^4b^2c^3e^2g^2k^2l^2m + 9a^4b^2c^3g^2h^2j^2k^2l^2m + 9a^4b^2c^3g^2h^2j^2k^2l^2m + 9a^4b^2c^3g^2h^2j^2k^2l^2m \\
& + 9a^4b^2c^3e^2f^2l^2m + 9a^4b^2c^3e^2f^2l^2m - 9a^3b^4c^2e^3h^2j^2k^2l^2m + 9a^3b^3c^4e^2f^2k^2l^2m \\
& + 9a^2b^5c^2e^2h^2j^2k^2l^2m + 9a^2b^4c^2d^2g^3k^2l^2m - 9a^2b^2c^4d^3g^2k^2l^2m - 6a^4b^2c^2e^3h^2k^3l \\
& - 6a^3b^2c^3f^2g^3j^2k^2l^2m + 3a^4b^2c^2g^2h^2j^2k^3 + 3a^4b^2c^2f^2g^2k^3 + 3a^4b^2c^2e^3g^2k^3 \\
& + 3a^4b^2c^2e^3g^2k^3 + 3a^3b^2c^3g^3h^2j^2k^2 + 3a^3b^2c^3f^2g^3k^2 + 3a^3b^2c^3f^2g^3k^2 + 3a^3b^2c^3e^3g^3k^2 \\
& - 27a^3b^3c^4d^2h^2k^2l^2m + 18a^4b^3c^3e^2f^2k^2l^2m + 18a^4b^3c^3d^2f^2l^2m^2 + 9a^4b^3c^3f^2h^2j^2k^2l^2m \\
& + 9a^4b^3c^3e^2g^2k^2l^2m + 9a^4b^3c^3d^2h^2k^2l^2m + 9a^3b^4c^2e^3g^2j^2k^2l^2m + 9a^3b^4c^2d^2h^2j^2k^2l^2m \\
& - 9a^3b^3c^2e^3g^2j^2k^2l^2m - 9a^3b^3c^2d^2h^2j^2k^2l^2m + 9a^3b^3c^4e^2g^2j^2k^2l^2m + 9a^3b^3c^4d^2h^2j^2k^2l^2m \\
& - 3a^2b^3c^3f^3h^2j^2k^2l^2m - 3a^2b^3c^3f^3g^2j^2k^2l^2m - 3a^2b^3c^3d^2f^3k^2l^2m + 45a^4b^3c^3d^2g^2j^2k^2l^2m \\
& + 45a^3b^3c^4d^2g^2j^2k^2l^2m + 24a^4b^2c^2d^2g^2k^2l^3 + 24a^2b^2c^4e^3f^2j^2k^2l^2m + 18a^4b^3c^3f^2g^2h^2m^2 \\
& + 18a^4b^3c^3d^2h^2j^2k^2l^2m + 18a^3b^3c^4e^2h^2j^2k^2l^2m - 12a^4b^2c^2e^3g^2j^2k^2l^2m - 12a^4b^2c^2e^3f^2k^2l^2m \\
& - 12a^4b^2c^2d^2e^3l^3m - 12a^2b^2c^4e^3g^2j^2k^2l^2m - 12a^2b^2c^4e^3f^2k^2l^2m - 12a^2b^2c^4d^2e^3l^3m \\
& + 9a^4b^3c^3f^2g^2j^2k^2l^2m + 9a^4b^3c^3e^2h^2j^2k^2l^2m + 9a^4b^3c^3e^2h^2j^2k^2l^2m + 9a^3b^2c^3e^3h^2j^2k^2l^2m \\
& + 9a^3b^2c^3e^3h^2j^2k^2l^2m + 9a^3b^2c^3d^2h^3j^2k^2l^2m + 9a^3b^3c^4f^2g^2j^2k^2l^2m + 9a^3b^3c^4d^2h^2j^2k^2l^2m \\
& + 9a^2b^5c^2d^2g^2j^2k^2l^2m - 3a^4b^2c^2d^2h^2j^2k^2l^2m - 3a^2b^3c^3f^3g^2h^2m - 3a^2b^3c^3f^3g^2h^2m - 3a^2b^3c^3f^3g^2h^2m
\end{aligned}$$

$$\begin{aligned}
& ^2c^4e^3h^*j^*k + 18a^4b^*c^3f^*g^*h^2l^2 + 18a^3b^*c^4e^2g^*h^2m + 18 \\
& a^3b^*c^4d^2h^*j^*k^2 + 18a^3b^*c^4d^2f^*k^2l + 18a^3b^*c^4d^2e^*k^2m \\
& + 9a^4b^*c^3e^*g^2h^*m^2 + 9a^4b^*c^3e^*f^*j^2l^2 + 9a^4b^*c^3d^*g^*j^2 \\
& *l^2 + 9a^3b^2c^3f^*g^*h^3*l + 9a^3b^2c^3e^*g^*h^3*m + 9a^3b^*c^4f^2* \\
& g^2h^*l + 9a^3b^*c^4e^2g^*j^2*k + 9a^3b^*c^4e^2f^*j^2*l - 9a^2b^3c^3 \\
& *d^*g^3*j^*l + 9a^2b^4c^3d^2g^2j^*l - 3a^4b^2c^2f^*g^*h^*l^3 - 3a^3b^3c^2 \\
& e^*g^*j^*k^3 - 3a^3b^3c^2d^*h^*j^*k^3 - 3a^3b^3c^2d^*f^*k^3*l - 3a^3b^3 \\
& c^2d^*e^*k^3*m - 3a^2b^2c^4e^3g^*h^*m - 33a^3b^2c^3d^*e^*j^3*m - 27a^4 \\
& b^*c^3e^*f^*h^2*m^2 - 27a^3b^*c^4d^2e^*k^*l^2 - 18a^4b^*c^3d^*e^*j^2*m^2 \\
& - 18a^3b^*c^4e^*f^2*j^2*k - 18a^3b^*c^4d^*f^2*j^2*l - 9a^4b^2c^2d^*e^* \\
& j^*m^3 + 9a^4b^*c^3d^*g^*h^2*m^2 + 9a^4b^*c^3d^*e^*k^2*l^2 + 9a^3b^*c^4f^2 \\
& *g^*h^2*k + 9a^3b^*c^4e^2f^*j^*k^2 + 9a^3b^*c^4d^2f^*j^*l^2 + 9a^3b^*c^4e^ \\
& *f^2h^2*m + 9a^3b^*c^4d^*e^2k^2*l - 9a^2b^5c^d^*e^*j^2*m^2 + 9a^2b^4 \\
& c^2d^*e^*j^3*m - 9a^2b^3c^3d^*g^3h^*m + 9a^2b^*c^5d^2e^2k^*l + 9a^2b^* \\
& c^5d^2e^2j^*m + 9a^2b^4c^3d^2g^2h^*m - 6a^3b^2c^3d^*g^*j^3*k - 3a^3 \\
& b^3c^2f^*g^*h^*k^3 + 3a^3b^2c^3e^*f^*j^3*k + 3a^3b^2c^3d^*f^*j^3*l + \\
& 3a^2b^2c^4e^*f^3*j^*k + 3a^2b^2c^4d^*f^3*j^*l + 45a^3b^*c^4d^2g^*h^*l^2 \\
& + 36a^4b^2c^2e^*f^*g^*m^3 + 36a^4b^2c^2d^*f^*h^*m^3 - 27a^3b^*c^4e^2g^ \\
& *h^*k^2 - 27a^3b^*c^4d^*g^2h^2*l - 18a^3b^*c^4f^2g^*h^*j^2 + 18a^3b^*c^4 \\
& d^*e^2j^*l^2 + 15a^3b^3c^2d^*e^*j^*l^3 + 12a^2b^2c^4e^*f^3g^*m + 12a^2 \\
& b^2c^4d^*f^3h^*m + 9a^3b^*c^4f^*g^2h^2*j + 9a^3b^*c^4e^*g^2h^2*k + 9 \\
& a^3b^*c^4d^*f^2j^*k^2 + 9a^2b^*c^5d^2f^2j^*k + 9a^2b^5c^2d^2g^*h^*l^2 \\
& - 9a^2b^4c^3d^2g^*h^2*l - 6a^2b^2c^4e^*f^3h^*l + 3a^3b^2c^3f^*g^*h^*j^ \\
& ^3 + 3a^2b^2c^4f^3g^*h^*j + 45a^3b^*c^4d^2f^*g^*m^2 - 27a^2b^*c^5d^2f^2 \\
& g^*m + 18a^3b^*c^4e^2f^*g^*l^2 + 15a^3b^3c^2e^*f^*g^*l^3 - 12a^3b^2c^3 \\
& d^*e^*j^*k^3 + 9a^3b^*c^4d^2e^*h^*m^2 + 9a^3b^*c^4e^*g^2h^*j^2 + 9a^3b^ \\
& *c^4e^*f^2h^*k^2 - 9a^2b^3c^3d^*f^*h^3*l + 9a^2b^*c^5d^2f^2h^*l + 9a^2 \\
& b^5c^2d^2f^*g^*m^2 + 9a^2b^3c^4d^2f^2g^*m + 6a^3b^3c^2d^*f^*h^*l^3 + 3 \\
& a^2b^4c^2d^*e^*j^*k^3 + 18a^3b^*c^4e^*f^*g^2k^2 + 18a^2b^*c^5d^2g^2h^* \\
& j + 18a^2b^*c^5d^2f^*g^2l + 18a^2b^*c^5d^2e^*g^2m - 12a^3b^2c^3d^* \\
& f^*h^*k^3 + 9a^3b^*c^4e^*f^*h^2j^2 + 9a^3b^*c^4d^*f^2g^*l^2 + 9a^3b^*c^4d^ \\
& *e^2g^*m^2 + 9a^3b^*c^4d^*g^*h^2j^2 + 9a^2b^2c^4e^*f^*g^3k + 9a^2b^2c^ \\
& c^4d^*g^3h^*j + 9a^2b^2c^4d^*f^*g^3l + 9a^2b^2c^4d^*e^*g^3m + 9a^2b^ \\
& *c^5e^2f^2h^*j + 9a^2b^*c^5e^2f^2g^*k - 9a^2b^3c^4d^2g^2h^*j - 9a^2 \\
& b^3c^4d^2f^*g^2l - 9a^2b^3c^4d^2e^*g^2m - 3a^3b^2c^3e^*f^*g^*k^3 + 3 \\
& a^2b^4c^2e^*f^*g^*k^3 + 3a^2b^4c^2d^*f^*h^*k^3 - 54a^3b^*c^4d^*e^*f^2m^2 \\
& - 51a^3b^3c^2d^*e^*f^*m^3 - 27a^3b^*c^4d^*e^*g^2l^2 + 9a^3b^*c^4d^*e^*h^2 \\
& k^2 + 9a^2b^*c^5e^2f^*g^2j + 9a^2b^*c^5d^2f^*h^2j + 9a^2b^*c^5d^2 \\
& *e^*h^2k + 9a^2b^*c^5d^*e^2g^2l - 9a^2b^5c^2d^*e^*f^2m^2 - 9a^2b^4c^3 \\
& d^2e^*g^*l^2 - 9a^2b^2c^5d^2e^2g^*l - 9a^2b^2c^5d^2e^2f^*m - 3a^2b^3 \\
& c^3e^*f^*g^*j^3 - 3a^2b^3c^3d^*f^*h^*j^3 + 36a^3b^2c^3d^*e^*f^*l^3 - 27a^2 \\
& b^*c^5d^2f^*g^*j^2 - 18a^2b^4c^2d^*e^*f^*l^3 - 18a^2b^*c^5d^*e^2h^2j + \\
& 9a^2b^*c^5d^2e^*h^*j^2 + 9a^2b^*c^5d^*f^2g^2j + 9a^2b^4c^3d^*e^2f^*l^2 \\
& + 9a^2b^3c^4d^2f^*g^*j^2 - 9a^2b^2c^5d^2f^2g^*j - 9a^2b^2c^5d^2e^*f^ \\
& ^2l + 3a^2b^2c^4d^*e^*h^3j - 18a^2b^*c^5e^2f^*g^*h^2 + 18a^2b^*c^5d^2 \\
& *e^*f^*k^2 + 15a^2b^3c^3d^*e^*f^*k^3 + 9a^2b^*c^5e^*f^2g^2h + 9a^2b^*c^5 \\
& d^*e^2g^*j^2 - 9a^2b^3c^4d^2e^*f^*k^2 + 9a^2b^2c^5d^2e^*g^2j - 9a^2b^2 \\
& c^5d^*e^2f^2k + 3a^2b^2c^4e^*f^*g^*h^3 + 18a^2b^*c^5d^*e^*f^2j^2 + 9a^2 \\
& b^*c^5d^*f^2g^*h^2 - 9a^2b^3c^4d^*e^*f^2j^2 + 9a^2b^2c^5d^2f^*g^2h - \\
& 3a^2b^2c^4d^*e^*f^*j^3 + 9a^2b^*c^5d^*e^*g^2h^2 - 9a^2b^2c^5d^2e^*g^*h^2 \\
& + 9a^2b^2c^5d^*e^2f^*h^2 - 36a^6c^2f^*j^*k^*l^*m^2 + 36a^5c^3f^2j^*k^*l^* \\
& m - 36a^5c^3f^*h^2j^*l^*m + 36a^5c^3e^*h^*j^2l^*m - 18a^6b^*c^*j^2k^*l^*m^2 \\
& + 9a^6b^*c^*j^*k^2l^2*m + 3a^5b^2c^*j^3k^*l^*m - 36a^5c^3f^*g^*j^*k^2*m \\
& - 36a^5c^3e^*f^*k^2l^*m + 36a^5c^3d^*g^*k^2l^*m - 36a^4c^4d^2g^*k^*l^*m \\
& - 36a^5c^3e^*h^*j^*k^*l^2 - 36a^5c^3e^*f^*j^*l^2*m - 36a^5c^3d^*f^*k^*l^2*m \\
& + 36a^4c^4e^2h^*j^*k^*l + 36a^4c^4e^2f^*j^*l^*m + 9a^6b^*c^*h^*k^2l^*m^2 - \\
& 3a^4b^3c^*h^3k^*l^*m - 36a^5c^3e^*g^*h^*l^2*m + 36a^5c^3e^*f^*j^*k^*m^2 - \\
& 36a^5c^3d^*g^*j^*k^*m^2 + 36a^5c^3d^*f^*j^*l^*m^2 - 36a^5c^3d^*e^*k^*l^*m^2 + \\
& 36a^4c^4e^2g^*h^*l^*m - 36a^4c^4e^*f^2j^*k^*m - 36a^4c^4d^*f^2j^*l^*m +
\end{aligned}$$

$$\begin{aligned}
& 9a^6b^2c^2h^2j^2k^2 + 9a^6b^2c^2g^2k^2 + 9a^5b^2c^2g^2k^3 + 3a^4b^2c^2g^2k^3 + 36a^5c^3f^2g^2h^2j^2k^2 + 36a^5c^3e^2f^2h^2j^2k^2 - 36a^4c^4f^2g^2h^2j^2k^2 - 36a^4c^4e^2f^2h^2j^2k^2 - 24a^4b^2c^3f^3k^2 + 12a^5b^2c^2h^2j^3k^2 - 12a^5b^2c^2g^2j^3k^2 + 3a^2b^5c^2f^3k^2 + 36a^4c^4e^2g^2h^2k^2 - 36a^4c^4e^2f^2g^2h^2k^2 + 12a^5b^2c^2e^2k^3 - 6a^5b^2c^2e^2f^2j^3 + 3a^5b^2c^2h^2j^3k^2 + 48a^3b^2c^4d^3k^2 + 36a^4c^4e^2f^2h^2j^2k^2 + 36a^4c^4d^2g^2h^2k^2 - 36a^4c^4d^2f^2h^2k^2 - 36a^4c^4d^2e^2j^2k^2 + 24a^5b^2c^2d^2k^3 + 21a^2b^5c^2d^3k^2 - 12a^5b^2c^2g^2j^3k^2 - 9a^4b^3c^2d^2k^3 + 6a^5b^2c^2f^2j^3k^2 + 3a^5b^2c^2e^2g^2h^2k^2 - 36a^4c^4e^2f^2h^2j^2k^2 - 12a^5b^2c^2g^2h^2k^3 - 3a^5b^2c^2e^2j^2k^3 - 3a^5b^2c^2d^2j^2k^3 - 36a^4c^4d^2g^2h^2j^2k^2 - 36a^4c^4d^2f^2g^2h^2j^2k^2 - 36a^4c^4d^2e^2g^2h^2j^2k^2 + 36a^3c^5d^2g^2h^2j^2k^2 + 36a^3c^5d^2f^2g^2j^2k^2 + 36a^3c^5d^2e^2g^2j^2k^2 + 36a^3c^5d^2e^2f^2j^2k^2 + 24a^5b^2c^2e^2h^2k^3 - 24a^3b^2c^4e^3j^2k^2 - 12a^5b^2c^2e^2f^2h^2k^3 - 12a^5b^2c^2e^2f^2g^2h^2k^3 - 3a^5b^2c^2e^2g^2h^2j^2k^3 - 3a^4b^3c^2e^2j^2k^3 - 3a^4b^3c^2e^2e^3j^2k^3 + 36a^4c^4d^2e^2h^2j^2k^2 + 36a^4c^4d^2e^2g^2k^2 - 36a^3c^5d^2e^2h^2j^2k^2 - 36a^3c^5d^2e^2g^2k^2 - 36a^3c^5d^2e^2f^2k^2 + 24a^4b^2c^3e^2h^3k^2 - 24a^3b^2c^4e^3g^2k^2 - 18a^2b^4c^3d^3j^2k^2 - 12a^4b^2c^3g^2h^3j^2k^2 - 12a^4b^2c^3f^2h^3k^2 - 12a^4b^2c^3d^2h^3j^2k^2 + 12a^3b^2c^4e^3h^2k^2 + 6a^4b^2c^3f^2h^3j^2k^2 - 3a^4b^3c^2g^2h^2j^2k^2 - 3a^4b^3c^2e^2f^2h^2k^2 - 3a^4b^3c^2e^2g^2h^2j^2k^2 - 3a^4b^3c^2d^2h^2j^2k^2 - 3a^4b^3c^2e^3h^2k^2 - 3a^4b^3c^2e^3g^2h^2j^2k^2 + 36a^4c^4e^2f^2g^2h^2k^2 - 36a^4c^4d^2e^2f^2j^2k^2 - 36a^3c^5d^2e^2f^2g^2j^2k^2 - 36a^3c^5d^2e^2f^2k^2 + 36a^3c^5d^2e^2f^2j^2k^2 - 18a^2b^4c^3d^3h^2k^2 - 9a^2b^4c^3d^3g^2h^2k^2 + 30a^5b^2c^2d^2g^2k^2 - 30a^4b^3c^2d^2g^2k^2 - 24a^5b^2c^2e^2f^2k^2 - 24a^5b^2c^2d^2f^2k^2 + 24a^4b^2c^3e^2g^2j^2k^2 + 24a^4b^2c^3d^2h^2j^2k^2 + 15a^4b^2c^3e^2f^2k^2 + 15a^4b^2c^3d^2f^2k^2 + 12a^5b^2c^2e^2g^2j^2k^2 + 12a^5b^2c^2d^2h^2j^2k^2 - 12a^4b^2c^3f^2h^2j^2k^2 - 12a^4b^2c^3f^2g^2j^2k^2 + 6a^4b^2c^3e^2g^2j^2k^2 + 6a^4b^2c^3d^2h^2j^2k^2 + 6a^4b^2c^3e^2h^2j^2k^2 + 6a^3c^5d^2e^2g^2h^2k^2 - 24a^5b^2c^2f^2g^2h^2k^2 + 15a^4b^2c^3e^2f^2g^2h^2k^2 - 9a^2b^6c^2d^2g^2j^2k^2 - 6a^3b^4c^2d^2g^2k^2 - 6a^2b^4c^3e^3f^2j^2k^2 + 3a^3b^4c^2e^2g^2j^2k^2 + 3a^3b^4c^2e^2f^2k^2 + 3a^3b^4c^2d^2h^2j^2k^2 + 3a^3b^4c^2e^3f^2k^2 + 3a^3b^4c^3d^2e^3k^2 - 36a^3c^5d^2e^2g^2h^2k^2 + 30a^2b^2c^5d^3f^2j^2k^2 - 30a^2b^3c^4d^3f^2j^2k^2 + 24a^3b^2c^4d^2g^3j^2k^2 - 24a^2b^2c^5d^3h^2j^2k^2 - 24a^2b^2c^5d^3f^2k^2 - 24a^2b^2c^5d^3e^2k^2 + 15a^2b^3c^4d^3h^2j^2k^2 + 15a^2b^3c^4d^3f^2k^2 + 15a^2b^3c^4d^3e^2k^2 - 12a^3b^2c^4e^2g^3j^2k^2 + 12a^2b^2c^5d^3g^2j^2k^2 + 6a^2b^3c^4d^3g^2j^2k^2 + 3a^3b^4c^2e^2f^2g^2h^2k^2 + 3a^2b^4c^3e^3g^2h^2k^2 + 24a^3b^2c^4d^2g^3h^2k^2 - 12a^3b^2c^4f^2g^3h^2k^2 + 12a^2b^2c^5d^3g^2h^2k^2 - 9a^3b^4c^2d^2e^2j^2k^2 + 6a^3b^2c^4e^2g^3h^2k^2 + 6a^2b^3c^4d^3g^2h^2k^2 + 36a^3c^5d^2e^2f^2g^2k^2 - 36a^2c^6d^2e^2f^2g^2k^2 - 24a^4b^2c^3d^2e^2j^2k^2 - 18a^3b^4c^2e^2f^2g^2k^2 - 18a^3b^4c^2d^2f^2h^2k^2 - 3a^2b^5c^2d^2e^2j^2k^2 - 3a^2b^3c^4d^2e^3j^2k^2 - 24a^4b^2c^3e^2f^2g^2k^2 + 24a^3b^2c^4d^2f^2h^2k^2 - 12a^3b^2c^4e^2g^2h^2k^2 - 12a^3b^2c^4e^2f^2h^2k^2 - 12a^3b^2c^4e^2e^3h^2k^2 - 12a^3b^2c^4e^2f^2g^2h^2k^2 + 6a^3b^2c^4d^2g^2h^2k^2 - 3a^2b^5c^2d^2f^2h^2k^2 - 3a^2b^5c^2d^2e^2f^2h^2k^2 - 3a^2b^3c^4e^3f^2g^2h^2k^2 - 3a^2b^3c^4e^3f^2h^2k^2 - 3a^2b^3c^4e^3f^2g^2k^2 - 3a^2b^3c^4d^2e^3h^2k^2 + 24a^2b^2c^5d^3e^2h^2k^2 - 12a^2b^2c^5d^3f^2h^2k^2 - 3a^2b^2c^5d^3g^2h^2k^2 - 3a^2b^2c^5d^3e^2g^2k^2 + 48a^4b^2c^3d^2e^2f^2k^2 + 24a^2b^2c^5d^2e^2f^2k^2 + 21a^2b^5c^2d^2e^2f^2k^2 - 12a^2b^2c^5e^2f^2g^2j^2k^2 - 12a^2b^2c^5d^2f^3h^2j^2k^2 - 9a^2b^3c^4d^2e^2f^3k^2 + 6a^2b^2c^5d^2e^2f^3g^2k^2 + 12a^2b^2c^5d^2e^3f^2k^2 - 6a^2b^2c^5d^2e^3g^2k^2 + 3a^2b^2c^5d^2e^3h^2j^2k^2 - 24a^3b^2c^4d^2e^2f^2k^2 - 12a^2b^2c^5d^2e^2g^3j^2k^2 - 3a^2b^5c^2d^2e^2f^2k^2 + 3a^2b^2c^5e^3f^2g^2h^2k^2 - 12a^2b^2c^5d^2f^2g^3h^2k^2 + 9a^2b^2c^5d^2e^2f^3j^2k^2 + 9a^2b^2c^6d^2e^2f^2g^2h^2k^2 + 9a^2b^2c^6d^2e^2f^2h^2k^2 - 3a^2b^3c^4d^2e^2f^2h^2k^2 - 18a^2b^2c^6d^2e^2f^2g^2k^2 + 9a^2b^2c^6d^2e^2f^2g^2k^2 - 36a^4b^2c^2e^2k^2 - 9a^4b^2c^2g^2j^2k^2 + 45a^3b^3c^2d^2k^2 + 36a^4b^2c^2e^2k^2
\end{aligned}$$

$$\begin{aligned}
& ^2*c^2*e^2*j^1*m^2 + 9*a^4*b^2*c^2*g^2*j^k^2*1 + 9*a^3*b^3*c^2*e^2*j^2*1*m \\
& + 9*a^4*b^2*c^2*g^2*h^k^2*m - 9*a^4*b^2*c^2*f^2*h^1^2*m - 9*a^3*b^3*c^2*f^2 \\
& *j^2*k^1 - 45*a^3*b^3*c^2*d^2*j^k*m^2 + 36*a^3*b^2*c^3*d^2*j^2*k*m + 18*a^4 \\
& *b^2*c^2*f^2*h^k*m^2 + 18*a^4*b^2*c^2*f^2*g^1*m^2 - 9*a^4*b^2*c^2*g^2*h^k*1 \\
& ^2 - 9*a^4*b^2*c^2*f^2*h^2*k^2*m - 9*a^4*b^2*c^2*f^2*g^2*1^2*m - 9*a^4*b^2*c^2* \\
& e^2*j^2*k^2*1 - 9*a^4*b^2*c^2*d^2*j^2*k^2*m - 9*a^3*b^3*c^2*e^2*j^k*1^2 - 9*a^2 \\
& *b^4*c^2*d^2*j^2*k*m - 36*a^3*b^2*c^3*d^2*j^k^2*1 - 27*a^3*b^2*c^3*e^2*h^2* \\
& k*m + 9*a^4*b^2*c^2*g^2*h^2*j^1^2 + 9*a^4*b^2*c^2*f^2*h^2*k^1^2 - 9*a^4*b^2*c^2 \\
& *f^2*g^2*k*m^2 - 9*a^4*b^2*c^2*e^2*g^2*1*m^2 - 9*a^4*b^2*c^2*d^2*j^2*k^1^2 + 9*a^ \\
& 4*b^2*c^2*d^2*h^2*1^2*m - 9*a^3*b^3*c^2*e^2*g^1^2*m + 9*a^2*b^4*c^2*e^2*h^2*k \\
& *m + 9*a^2*b^4*c^2*d^2*j^k^2*1 - 45*a^3*b^3*c^2*e^2*h^j*m^2 + 36*a^4*b^2*c^ \\
& 2*e^2*h^2*j*m^2 + 36*a^3*b^2*c^3*e^2*h^j^2*m - 36*a^3*b^2*c^3*d^2*h^k^2*m + 3 \\
& 6*a^2*b^3*c^3*d^2*g^2*1*m - 9*a^4*b^2*c^2*f^2*h^j^2*1^2 - 9*a^4*b^2*c^2*d^2*h^2 \\
& *k*m^2 + 9*a^3*b^3*c^2*f^2*h^j*1^2 + 9*a^3*b^3*c^2*e^2*f^1*m^2 + 9*a^3*b^3* \\
& c^2*e^2*h^2*j^2*m - 9*a^3*b^2*c^3*f^2*h^2*j^1 - 9*a^2*b^4*c^2*e^2*h^j^2*m + 9 \\
& *a^2*b^4*c^2*d^2*h^k^2*m + 36*a^3*b^2*c^3*d^2*h^k*1^2 - 27*a^4*b^2*c^2*e^2*g^ \\
& j^2*m^2 - 27*a^4*b^2*c^2*d^2*h^j^2*m^2 - 9*a^4*b^2*c^2*d^2*h^k^2*1^2 - 9*a^3*b^ \\
& 3*c^2*e^2*f^2*k*m^2 - 9*a^3*b^3*c^2*d^2*f^2*1*m^2 + 9*a^3*b^2*c^3*f^2*h^j^2*k + \\
& 9*a^3*b^2*c^3*f^2*g^j^2*1 - 9*a^3*b^2*c^3*e^2*g^k^2*1 - 9*a^3*b^2*c^3*e^2* \\
& f^k^2*m - 9*a^3*b^2*c^3*d^2*f^1^2*m - 9*a^2*b^4*c^2*d^2*h^k*1^2 + 9*a^2*b^3 \\
& *c^3*d^2*h^2*k^1 - 81*a^3*b^2*c^3*d^2*g^j*m^2 + 54*a^2*b^4*c^2*d^2*g^j*m^2 \\
& - 45*a^3*b^3*c^2*d^2*g^2*j*m^2 - 45*a^2*b^3*c^3*d^2*g^j^2*m + 36*a^3*b^2*c^3* \\
& d^2*f^k*m^2 + 36*a^3*b^2*c^3*d^2*g^2*j^2*m + 18*a^3*b^2*c^3*e^2*g^j*1^2 + 18* \\
& a^3*b^2*c^3*e^2*f^k*1^2 + 18*a^3*b^2*c^3*d^2*e^2*1^2*m - 9*a^4*b^2*c^2*d^2*f^k^ \\
& 2*m^2 - 9*a^3*b^3*c^2*f^2*g^h*m^2 - 9*a^3*b^3*c^2*d^2*h^2*j^1^2 - 9*a^3*b^2*c \\
& ^3*f^2*g^j^k^2 - 9*a^3*b^2*c^3*d^2*e^1*m^2 - 9*a^3*b^2*c^3*f^2*g^2*h^2*m - 9* \\
& a^3*b^2*c^3*e^2*g^2*j^2*1 - 9*a^3*b^2*c^3*e^2*f^2*k^2*1 - 9*a^2*b^4*c^2*d^2*f^k \\
& *m^2 - 9*a^2*b^4*c^2*d^2*g^2*j^2*m - 9*a^2*b^3*c^3*e^2*h^2*j^k - 9*a^2*b^2*c^ \\
& 4*d^2*f^2*k*m - 27*a^2*b^2*c^4*d^2*g^2*j^1 - 9*a^3*b^3*c^2*f^2*g^2*h^2*1^2 + 9* \\
& a^3*b^2*c^3*e^2*g^2*j^k^2 - 9*a^3*b^2*c^3*e^2*f^2*j^1^2 - 9*a^3*b^2*c^3*d^2*h^2*j \\
& ^2*k - 9*a^3*b^2*c^3*d^2*f^2*k^1^2 - 9*a^3*b^2*c^3*d^2*e^2*k*m^2 - 9*a^2*b^3*c^ \\
& 3*e^2*g^2*h^2*m - 9*a^2*b^3*c^3*d^2*h^j^k^2 - 9*a^2*b^3*c^3*d^2*f^k^2*1 - 9*a \\
& ^2*b^3*c^3*d^2*e^k^2*m + 36*a^3*b^3*c^2*d^2*e^j^2*m^2 + 36*a^3*b^2*c^3*e^2*f^ \\
& h^2*m^2 - 27*a^2*b^2*c^4*d^2*g^2*h^2*m + 9*a^3*b^3*c^2*e^2*f^2*h^2*m^2 + 9*a^3*b^2* \\
& c^3*f^2*g^2*h^k^2 - 9*a^2*b^4*c^2*e^2*f^2*h^2*m^2 + 9*a^2*b^3*c^3*d^2*e^k*1^2 - 9 \\
& *a^2*b^2*c^4*e^2*f^2*h^2*m - 45*a^2*b^3*c^3*d^2*g^2*h^1^2 - 36*a^3*b^2*c^3*e^2*f^ \\
& 2*g^2*m^2 + 36*a^3*b^2*c^3*d^2*g^2*h^1^2 - 36*a^3*b^2*c^3*d^2*f^2*h^2*m^2 + 36*a^2* \\
& b^2*c^4*d^2*g^2*h^2*1 - 9*a^3*b^2*c^3*e^2*g^2*h^2*k^2 + 9*a^2*b^4*c^2*e^2*f^2*g^2*m^2 \\
& - 9*a^2*b^4*c^2*d^2*g^2*h^1^2 + 9*a^2*b^4*c^2*d^2*f^2*h^2*m^2 + 9*a^2*b^3*c^3*e^ \\
& 2*g^2*h^k^2 + 9*a^2*b^3*c^3*d^2*g^2*h^2*1 - 9*a^2*b^3*c^3*d^2*e^2*j^1^2 - 9*a^2*b \\
& ^2*c^4*e^2*g^2*h^k - 9*a^2*b^2*c^4*e^2*f^2*g^2*m - 9*a^2*b^2*c^4*d^2*f^j^2*k \\
& - 9*a^2*b^2*c^4*d^2*f^2*h^2*m - 9*a^2*b^2*c^4*d^2*e^j^2*1 - 45*a^2*b^3*c^3*d^ \\
& 2*f^2*g^2*m^2 + 36*a^3*b^2*c^3*d^2*f^2*g^2*m^2 - 27*a^3*b^2*c^3*d^2*f^2*h^2*1^2 + 18*a^ \\
& 2*b^2*c^4*d^2*e^j^k^2 + 9*a^2*b^4*c^2*d^2*f^2*h^2*1^2 - 9*a^2*b^4*c^2*d^2*f^2*g^2*m \\
& ^2 - 9*a^2*b^3*c^3*e^2*f^2*g^1^2 + 9*a^2*b^2*c^4*e^2*g^2*h^2*j + 9*a^2*b^2*c^4* \\
& e^2*f^2*h^2*k - 9*a^2*b^2*c^4*e^2*f^2*g^2*1 - 9*a^2*b^2*c^4*d^2*f^2*g^2*m - 9*a^2 \\
& *b^2*c^4*d^2*e^2*j^2*k + 9*a^2*b^2*c^4*d^2*e^2*h^2*m + 18*a^4*b^2*c^2*f^2*j^2*m \\
& ^2 + 18*a^3*b^2*c^3*e^2*h^2*1^2 - 9*a^2*b^4*c^2*e^2*h^2*1^2 + 18*a^2*b^2*c^ \\
& 4*d^2*g^2*k^2 + 12*a^6*c^2*j^3*k^1*m + 3*a^6*b^2*j^k*1*m^3 - 12*a^6*c^2*g^k \\
& ^3*1*m - 12*a^5*c^3*g^3*k^1*m - 24*a^6*c^2*e^k*1^3*m - 24*a^4*c^4*e^3*k^1*m \\
& + 12*a^6*c^2*h^j^k*1^3 + 12*a^6*c^2*f^j*1^3*m + 12*a^5*c^3*h^3*j^k*1 - 3*a \\
& ^5*b^3*h^j^k*m^3 - 3*a^5*b^3*g^j*1*m^3 - 3*a^5*b^3*f^k*1*m^3 + 12*a^6*c^2*g \\
& ^h*1^3*m + 12*a^5*c^3*g^h^3*1*m - 12*a^6*c^2*e^j^k*m^3 - 12*a^6*c^2*d^j*1*m \\
& ^3 - 12*a^5*c^3*f^j^3*k^1 - 12*a^5*c^3*e^j^3*k*m - 12*a^5*c^3*d^j^3*1*m - 1 \\
& 2*a^4*c^4*f^3*j^k*1 + 24*a^6*c^2*f^2*h^k*m^3 + 24*a^6*c^2*f^2*g^1*m^3 + 24*a^4* \\
& c^4*f^3*h^k*m + 24*a^4*c^4*f^3*g^1*m - 12*a^6*c^2*g^h^j*m^3 - 12*a^6*c^2*e^ \\
& h^1*m^3 - 12*a^5*c^3*g^h^j^3*m + 3*b^6*c^2*d^3*j^k*1 + 3*a^4*b^4*e^j^k*m^3 \\
& + 3*a^4*b^4*d^j*1*m^3 - 24*a^5*c^3*d^j^k^3*1 - 24*a^3*c^5*d^3*j^k*1 - 6*a^4 \\
& *b^4*e^h*1*m^3 + 3*b^6*c^2*d^3*h^k*m + 3*b^6*c^2*d^3*g^1*m + 3*a^6*b^c*j^2*
\end{aligned}$$

$$\begin{aligned}
& 1^3m + 3a^4b^4g^*h^*j^*m^3 + 3a^4b^4f^*h^*k^*m^3 + 3a^4b^4f^*g^*l^*m^3 - 2 \\
& 4a^5c^3d^*h^*k^3m - 24a^3c^5d^3h^*k^*m + 12a^5c^3g^*h^*j^*k^3 + 12a^5c^3 \\
& c^3f^*g^*k^3l + 12a^5c^3e^*h^*k^3l + 12a^5c^3e^*g^*k^3m + 12a^4c^4g^ \\
& 3h^*j^*k + 12a^4c^4f^*g^3k^*l + 12a^4c^4f^*g^3j^*m + 12a^4c^4e^*g^3k^* \\
& m + 12a^4c^4d^*g^3l^*m + 12a^3c^5d^3g^*l^*m + 3a^6b^*c^*j^*k^3m^2 - 9a \\
& ^6b^*c^*h^2l^*m^3 - 3a^5b^*c^2j^4k^*l + 24a^5c^3e^*g^*j^*l^3 + 24a^5c^3 \\
& e^*f^*k^*l^3 + 24a^5c^3d^*e^*l^3m + 24a^3c^5e^3g^*j^*l + 24a^3c^5e^3f^* \\
& k^*l + 24a^3c^5d^*e^3l^*m - 12a^5c^3d^*h^*j^*l^3 - 12a^5c^3d^*g^*k^*l^3 - \\
& 12a^4c^4e^*h^3j^*k - 12a^4c^4d^*h^3j^*l - 12a^3c^5e^3h^*j^*k - 12a^3 \\
& c^5e^3f^*j^*m + 9a^4b^*c^3g^4l^*m + 6b^5c^3d^3f^*j^*m + 6a^3b^5d^*g^* \\
& k^*m^3 - 3b^5c^3d^3h^*j^*k - 3b^5c^3d^3g^*j^*l - 3b^5c^3d^3f^*k^*l - 3 \\
& b^5c^3d^3e^*k^*m - 3a^3b^5e^*g^*j^*m^3 - 3a^3b^5e^*f^*k^*m^3 - 3a^3b^5 \\
& d^*h^*j^*m^3 - 3a^3b^5d^*f^*l^*m^3 - 12a^5c^3f^*g^*h^*l^3 - 12a^4c^4f^*g^*h^3 \\
& *l - 12a^4c^4e^*g^*h^3m - 12a^3c^5e^3g^*h^*m - 9a^6b^*c^*g^*k^2m^3 - 3 \\
& b^5c^3d^3g^*h^*m + 3a^6b^*c^*f^*l^3m^2 - 3a^3b^5f^*g^*h^*m^3 + 12a^5c^3 \\
& d^*e^*j^*m^3 + 12a^4c^4e^*f^*j^3k^* + 12a^4c^4d^*g^*j^3k^* + 12a^4c^4d^*f^*j^ \\
& 3l^* + 12a^4c^4d^*e^*j^3m^* + 12a^3c^5e^*f^3j^*k^* + 12a^3c^5d^*f^3j^*l^* - \\
& 9a^6b^*c^*e^*l^2m^3 - 24a^5c^3e^*f^*g^*m^3 - 24a^5c^3d^*f^*h^*m^3 - 24a^3c^ \\
& ^5e^*f^3g^*m - 24a^3c^5d^*f^3h^*m - 15a^2b^*c^5d^4l^*m + 15a^*b^3c^4 \\
& d^4l^*m + 12a^4c^4f^*g^*h^*j^3 + 12a^3c^5f^3g^*h^*j + 12a^3c^5e^*f^3h^* \\
& l + 9a^3b^*c^4f^4k^*l - 9a^3b^*c^4f^4j^*m + 3b^4c^4d^3e^*j^*k + 3a^5 \\
& b^2c^*g^*j^*l^4 + 3a^5b^2c^*f^*k^*l^4 + 3a^5b^2c^*d^*l^4m - 3a^5b^*c^2h^* \\
& j^*k^4 - 3a^5b^*c^2f^*k^4l^* - 3a^5b^*c^2e^*k^4m - 3a^4b^*c^3h^4j^*k + 3 \\
& a^2b^6d^*e^*j^*m^3 + 3a^*b^4c^3e^4k^*m + 24a^4c^4d^*e^*j^*k^3 + 24a^2c^ \\
& ^6d^3e^*j^*k - 6b^4c^4d^3e^*h^*l + 3b^4c^4d^3g^*h^*j + 3b^4c^4d^3f^*h^ \\
& *k + 3b^4c^4d^3f^*g^*l + 3b^4c^4d^3e^*g^*m - 3a^4b^*c^3g^*h^4m + 3a^ \\
& ^2b^6e^*f^*g^*m^3 + 3a^2b^6d^*f^*h^*m^3 - 3a^*b^6c^*e^3j^*m^2 + 24a^4c^4d^* \\
& f^*h^*k^3 + 24a^2c^6d^3f^*h^*k - 12a^4c^4e^*f^*g^*k^3 - 12a^3c^5e^*f^*g^3 \\
& k - 12a^3c^5d^*g^3h^*j - 12a^3c^5d^*f^*g^3l^* - 12a^3c^5d^*e^*g^3m - 12 \\
& a^2c^6d^3g^*h^*j - 12a^2c^6d^3f^*g^*l - 12a^2c^6d^3e^*h^*l - 12a^2c^ \\
& ^6d^3e^*g^*m - 12a^*b^2c^5d^4j^*l + 9a^5b^*c^2d^*j^*l^4 + 9a^2b^*c^5e^4 \\
& *j^*k - 3a^4b^3c^*d^*j^*l^4 - 3a^4b^*c^3e^*j^4k^* - 3a^4b^*c^3d^*j^4l^* - 3 \\
& a^*b^3c^4e^4j^*k - 24a^4c^4d^*e^*f^*l^3 - 24a^2c^6d^*e^3f^*l - 12a^5b^ \\
& ^2c^*e^*g^*m^4 - 12a^5b^2c^*d^*h^*m^4 + 12a^3c^5d^*e^*h^3j^* + 12a^2c^6d^*e^ \\
& ^3h^*j + 12a^2c^6d^*e^3g^*k - 12a^*b^2c^5d^4h^*m + 9a^5b^*c^2f^*g^*l^4 - \\
& 9a^5b^*c^2e^*h^*l^4 - 9a^2b^*c^5e^4h^*l + 9a^2b^*c^5e^4g^*m + 6a^4b^ \\
& ^3c^*e^*h^*l^4 + 6a^*b^3c^4e^4h^*l - 3b^3c^5d^3e^*g^*j - 3b^3c^5d^3e^*f^ \\
& *k - 3a^4b^3c^*f^*g^*l^4 - 3a^4b^*c^3g^*h^*j^4 - 3a^3b^*c^4g^4h^*j - 3a^ \\
& ^3b^*c^4f^*g^4l^* - 3a^3b^*c^4e^*g^4m - 3a^*b^3c^4e^4g^*m + 12a^3c^5e^* \\
& f^*g^*h^3 + 12a^2c^6e^3f^*g^*h - 3b^3c^5d^3f^*g^*h - 12a^3c^5d^*e^*f^*j^3 \\
& - 12a^2c^6d^*e^*f^3j^* - 3a^*b^6c^*d^2g^*l^3 - 15a^5b^*c^2d^*e^*m^4 + 15a^ \\
& ^4b^3c^*d^*e^*m^4 + 9a^4b^*c^3e^*f^*k^4 - 9a^4b^*c^3d^*g^*k^4 + 3a^3b^4c^* \\
& d^*f^*l^4 - 3a^3b^*c^4d^*h^4j^* - 3a^2b^*c^5e^*f^4k^* - 3a^2b^*c^5d^*f^4l^* + \\
& 3a^*b^2c^5e^4g^*j + 3a^*b^2c^5e^4f^*k + 3a^*b^2c^5d^*e^4m - 9a^*b^*c^ \\
& ^6d^3e^2l^* + 3b^2c^6d^3e^*f^*g - 3a^3b^*c^4f^*g^*h^4 - 3a^2b^*c^5f^4g^ \\
& *h + 12a^2c^6d^*e^*f^*g^3 - 9a^*b^*c^6d^3f^2j^* + 3a^*b^*c^6d^2e^3k^* + 9a^ \\
& ^3b^*c^4d^*e^*j^4 - 3a^2b^*c^5e^*f^*g^4 - 9a^*b^*c^6d^3e^*h^2 + 3a^*b^*c^6d^ \\
& ^2f^3g^* + 3a^*b^*c^6d^*e^3g^2 - 3a^4b^2c^2h^3j^2m^* + 12a^4b^2c^2g^ \\
& ^3j^*m^2 - 3a^4b^2c^2f^2k^3m^* + 3a^3b^3c^2g^3j^2m^* - 9a^3b^4c^*f^ \\
& ^2j^2m^2 + 9a^3b^3c^2f^2j^3m^* - 6a^3b^3c^2f^3j^*m^2 - 6a^3b^2c^ \\
& ^3f^3j^2m^* - 3a^2b^4c^2f^3j^2m^* - 27a^4b^2c^2d^2k^*m^3 - 27a^3 \\
& b^2c^3e^3j^*m^2 + 18a^2b^4c^2e^3j^*m^2 - 15a^2b^3c^3e^3j^2m^* + \\
& 12a^4b^2c^2f^2j^*l^3 + 3a^3b^3c^2e^2k^3l^* + 42a^2b^3c^3d^3j^*m^ \\
& ^2 - 27a^2b^2c^4d^3j^2m^* - 15a^3b^3c^2d^2k^*l^3 - 3a^4b^2c^2f^* \\
& j^2k^3 - 3a^4b^2c^2f^*h^3m^2 + 3a^3b^3c^2g^3h^*l^2 + 3a^3b^3c^2 \\
& f^2j^*k^3 - 3a^3b^2c^3g^3h^2l^* - 3a^3b^2c^3e^2j^3l^* - 27a^4b^2 \\
& c^2e^2h^*m^3 + 12a^3b^2c^3f^3h^*l^2 + 3a^3b^3c^2f^*g^3m^2 - 3a^2 \\
& b^4c^2f^3h^*l^2 + 3a^2b^3c^3f^3h^2l^* + 9a^3b^3c^2e^*h^3l^2 + 9a^ \\
& ^2b^3c^3e^2h^3l^* - 6a^4b^2c^2e^*h^2l^3 - 6a^3b^3c^2e^2h^*l^3 -
\end{aligned}$$

$$\begin{aligned}
& 6a^2b^3c^3e^3h^1l^2 - 6a^2b^2c^4e^3h^2l + 3a^2b^3c^3d^2j^3k + 42a^3b^3c^2d^2g^3m^3 - 27a^4b^2c^2d^2g^2m^3 - 27a^2b^2c^4d^3h^1l^2 - 15a^2b^3c^3e^3f^3m^2 + 12a^3b^2c^3e^2h^3k^3 + 3a^3b^3c^2e^2h^2k^3 - 3a^3b^2c^3e^2g^3l^2 - 3a^2b^4c^2e^2h^3k^3 + 3a^2b^3c^3f^3g^3k^2 - 3a^2b^2c^4f^3g^2k - 27a^3b^2c^3d^2g^3l^3 - 27a^2b^2c^4d^3f^3m^2 + 18a^2b^4c^2d^2g^3l^3 - 15a^3b^3c^2d^2g^2l^3 + 12a^2b^2c^4e^3g^3k^2 - 3a^3b^2c^3e^2h^2j^3 + 3a^2b^3c^3e^2h^3j^3 + 3a^2b^3c^3e^2f^3l^2 - 3a^2b^2c^4d^2h^3k + 9a^2b^3c^3d^2g^3k^2 - 9a^2b^4c^3d^2g^2k^2 - 6a^3b^2c^3d^2g^2k^3 - 6a^2b^3c^3d^2g^2k^3 - 3a^2b^4c^2d^2g^2k^3 + 12a^2b^2c^4d^2g^2j^3 + 3a^2b^3c^3d^2g^2j^3 - 3a^2b^2c^4d^2f^3k^2 - 3a^2b^2c^4d^2g^2h^3 + 12a^7c^j^k^l^m^3 - 3b^7c^d^3k^l^m - 3a^6b^c^k^4l^m - 3a^6b^c^j^k^l^4 - 3a^6b^c^g^l^4m - 9a^6b^c^f^j^m^4 + 9a^6b^c^e^k^m^4 + 9a^6b^c^d^l^m^4 + 9a^6b^c^g^h^m^4 - 3a^6b^7d^e^f^m^3 + 9a^6b^c^6d^4h^j - 9a^6b^c^6d^4g^k + 9a^6b^c^6d^4f^l + 9a^6b^c^6d^4e^m + 12a^6c^7d^3e^f^g - 3a^6b^c^6d^4e^4j - 3a^6b^c^6e^4f^g - 3a^6b^c^6d^4e^f^4 + 18a^6c^2h^2j^l^m^2 - 18a^6c^2h^2j^2l^2m + 18a^6c^2f^k^2l^2m + 36a^5c^3e^2k^l^2m + 18a^6c^2g^j^k^2m^2 + 18a^6c^2e^k^2l^2m^2 + 18a^5c^3g^2j^2k^m + 18a^6c^2e^j^l^2m^2 + 18a^6c^2d^k^l^2m^2 - 18a^5c^3e^2j^l^m^2 - 18a^6c^2f^h^l^2m^2 + 18a^5c^3f^2h^l^2m - 36a^5c^3f^2h^k^m^2 - 36a^5c^3f^2g^l^m^2 + 18a^5c^3g^2h^k^l^2 - 18a^5c^3g^2h^k^2l^2 + 18a^5c^3f^2h^2k^2m + 18a^5c^3f^2g^2l^2m + 18a^5c^3e^2j^2k^2l^2 + 18a^5c^3d^2j^2k^2m - 18a^4c^4d^2j^2k^m + 36a^4c^4d^2j^k^2l^2 + 18a^5c^3f^2g^2k^m^2 + 18a^5c^3e^2g^2l^2m^2 + 18a^5c^3d^2j^2k^l^2 - 18a^4c^4f^2g^2k^m + 36a^4c^4d^2h^k^2m + 18a^5c^3f^2h^j^2l^2 - 18a^5c^3e^2h^2j^m^2 + 18a^5c^3d^2h^2k^m^2 + 18a^4c^4f^2h^2j^k^l^2 - 18a^4c^4e^2h^j^2m - 18a^5c^3e^2g^k^2l^2 + 18a^5c^3d^2h^k^2l^2 + 18a^4c^4e^2g^k^2l^2 + 18a^4c^4e^2f^k^2m - 18a^4c^4d^2h^k^l^2 + 18a^4c^4d^2f^l^2m - 36a^4c^4e^2g^j^l^2 - 36a^4c^4e^2f^k^l^2 - 36a^4c^4d^2e^l^2m + 18a^5c^3d^2f^k^2m^2 + 18a^4c^4f^2g^j^k^2l^2 + 18a^4c^4d^2g^j^m^2 - 18a^4c^4d^2f^k^m^2 + 18a^4c^4d^2e^l^m^2 - 18a^4c^4f^2g^2j^2k^l^2 + 18a^4c^4f^2g^2h^2m + 18a^4c^4e^2g^2j^2l^2 + 18a^4c^4e^2f^2k^2l^2 - 18a^4c^4d^2g^2j^2m - 18a^4c^4d^2f^2k^2m + 18a^3c^5d^2f^2k^m + 3a^4b^2c^2h^4k^m - 3a^3b^3c^2g^4l^m + 18a^4c^4e^2f^2j^l^2 + 18a^4c^4d^2h^2j^2k^l^2 + 18a^4c^4d^2f^2k^l^2 + 18a^4c^4d^2e^2k^m^2 - 18a^3c^5e^2f^2j^l^2 + 12a^5b^2c^2g^2k^m^3 - 9a^5b^c^2h^3j^m^2 - 9a^5b^c^2f^2l^3m + 3a^5b^c^2h^2k^3l + 3a^4b^3c^2h^3j^m^2 + 3a^4b^3c^2f^2l^3m - 18a^4c^4e^2f^2h^m^2 + 18a^3c^5e^2f^2h^m + 15a^5b^c^2e^2l^m^3 - 15a^4b^3c^2e^2l^m^3 - 9a^5b^c^2g^2k^l^3 - 9a^4b^c^3g^3j^2m - 3a^5b^2c^2g^k^2l^3 + 3a^5b^c^2h^j^3l^2 + 3a^4b^3c^2g^2k^l^3 - 3a^3b^4c^2g^3j^m^2 + 36a^4c^4e^2f^2g^3m^2 + 36a^4c^4d^2f^2h^m^2 + 18a^4c^4e^2g^3h^2k^2 - 18a^4c^4d^2g^2h^l^2 - 18a^4c^4d^2f^2j^2k^2 + 18a^3c^5e^2g^2h^k + 18a^3c^5e^2f^2g^2m - 18a^3c^5d^2g^2h^2l + 18a^3c^5d^2f^2j^2k + 18a^3c^5d^2f^2h^2m + 18a^3c^5d^2e^2j^2l - 12a^2b^2c^4e^4k^m + 9a^4b^3c^2f^3j^m^2 - 9a^4b^2c^2f^2j^4m - 6a^5b^2c^2f^2j^2m^3 + 6a^5b^c^2f^2j^m^3 - 6a^5b^c^2f^2j^3m^2 - 6a^4b^3c^2f^2j^m^3 + 6a^4b^c^3f^3j^m^2 - 6a^4b^c^3f^2j^3m + 6a^2b^3c^3f^4j^m + 3a^3b^2c^3g^4j^l + 3a^2b^5c^2f^3j^m^2 - 3a^2b^3c^3f^4k^l - 36a^3c^5d^2e^2j^k^2 - 18a^4c^4d^2f^2g^2m^2 + 18a^3c^5e^2f^2g^2l + 18a^3c^5d^2f^2g^2m + 18a^3c^5d^2e^2j^2k + 18a^3b^4c^2d^2k^m^3 + 15a^3b^c^4e^3j^2m + 12a^5b^2c^2d^2k^2m^3 - 9a^5b^c^2f^2j^2l^3 - 9a^4b^c^3e^2k^3l + 3a^5b^c^2e^2k^3l^2 + 3a^4b^3c^2f^2j^2l^3 + 3a^4b^c^3g^2j^3k - 3a^3b^4c^2f^2j^l^3 + 3a^3b^2c^3g^4h^m + 3a^2b^5c^2e^3j^2m - 36a^3c^5d^2f^2h^k^2 - 21a^3b^c^4d^3j^m^2 - 21a^2b^5c^2d^3j^m^2 + 18a^3c^5e^2f^2h^j^2 - 18a^3c^5e^2f^2h^2j + 18a^3c^5d^2f^2h^2k + 18a^2b^4c^3d^3j^2m + 15a^4b^c^3d^2k^l^3 - 9a^5b^c^2d^2k^2l^3 - 9a^4b^c^3g^3h^l^2 - 9a^4b^c^3f^2j^k^3 + 3a^4b^3c^2d^2k^2l^3 + 3a^2b^5c^2d^2k^l^3 - 18a^3c^5d^2e^2g^l^2 + 18a^3c^5d^2e^2h^k^2 + 18a^3b
\end{aligned}$$

$$\begin{aligned}
& ^4c^2e^2hm^3 - 18a^2c^6d^2e^2hk + 18a^2c^6d^2e^2g^1 + 18a^2c^6d^2e^2f^m + 15a^5b^2c^2e^2h^2m^3 - 15a^4b^3c^2e^2h^2m^3 - 9a^4b^3c^3f^2g^3m^2 - 9a^3b^2c^4f^3h^2l + 3a^4b^2c^2e^2jk^4 + 3a^4b^2c^3g^2h^3k^2 + 3a^3b^2c^4f^2g^3m + 36a^3c^5d^2e^2f^1l^2 + 18a^3c^5d^2f^2g^2j^2 + 18a^2c^6d^2f^2g^2j + 18a^2c^6d^2e^2f^2l - 9a^3b^2c^3e^2h^4l - 9a^3b^2c^4d^2j^3k + 6a^4b^2c^3e^2h^1l^3 - 6a^4b^2c^3e^2h^3l^2 + 6a^3b^2c^4e^3h^1l^2 - 6a^3b^2c^4e^2h^3l + 3a^4b^2c^2f^2hk^4 + 3a^4b^2c^3d^2j^3k^2 - 3a^3b^4c^2e^2h^2l^3 + 3a^2b^5c^2e^2h^1l^3 + 3a^2b^2c^4f^4hk + 3a^2b^2c^4f^4g^1 + 3a^2b^5c^2e^3h^1l^2 - 3a^2b^4c^3e^3h^2l - 21a^4b^2c^3d^2g^2m^3 - 21a^2b^5c^2d^2g^2m^3 + 18a^3b^4c^2d^2g^2m^3 + 18a^2c^6d^2e^2f^2k + 18a^2b^4c^3d^3h^1l^2 + 15a^3b^2c^4e^3f^2m^2 + 15a^2b^2c^5d^3h^2l - 15a^2b^3c^4d^3h^2l - 9a^4b^2c^3e^2h^2k^3 - 9a^3b^2c^4f^3g^2k^2 - 9a^2b^2c^5e^3f^2m + 3a^3b^2c^4f^2h^3j + 3a^2b^5c^2e^3f^2m^2 + 3a^2b^3c^4e^3f^2m + 18a^2b^4c^3d^3f^2m^2 + 15a^4b^2c^3d^2g^2l^3 + 12a^2b^2c^5d^3f^2m - 9a^3b^2c^4e^2h^2j^3 - 9a^3b^2c^4e^2f^3l^2 - 9a^2b^2c^5e^3g^2k + 3a^3b^2c^4f^2g^3j^2 + 3a^2b^5c^2d^2g^2l^3 + 3a^2b^2c^5e^2f^3l - 3a^2b^4c^3e^3g^2k^2 + 3a^2b^3c^4e^3g^2k + 18a^2c^6d^2e^2g^2h^2 - 18a^2c^6d^2e^2g^2h - 12a^4b^2c^2d^2f^1l^4 - 9a^2b^2c^4d^2g^4k + 9a^2b^3c^4d^2g^3k + 6a^3b^3c^2d^2g^2k^4 + 6a^3b^2c^4d^2g^2k^3 - 6a^3b^2c^4d^2g^3k^2 + 6a^2b^2c^5d^3g^2k^2 - 6a^2b^2c^5d^2g^3k - 6a^2b^3c^4d^3g^2k^2 - 6a^2b^2c^5d^3g^2k - 3a^3b^3c^2e^2f^2k^4 + 3a^3b^2c^3e^2g^2j^4 + 3a^3b^2c^3d^2h^2j^4 + 3a^2b^5c^2d^2g^2k^3 + 15a^2b^2c^5d^3e^1l^2 - 15a^2b^3c^4d^3e^1l^2 - 9a^3b^2c^4d^2g^2j^3 - 9a^2b^2c^5e^3f^2j^2 - 3a^2b^4c^3d^2g^2j^3 + 3a^2b^3c^4e^3f^2j^2 - 3a^2b^2c^5e^3f^2j + 12a^2b^2c^5d^3f^2j^2 - 9a^2b^2c^5d^2e^3k^2 + 3a^2b^2c^5e^2g^3h + 3a^2b^3c^4d^2e^3k^2 - 9a^2b^2c^5d^2g^2h^3 - 3a^2b^3c^3d^2e^2j^4 + 3a^2b^2c^5e^2f^3h^2 + 3a^2b^3c^4d^2g^2h^3 + 3a^2b^2c^4d^2f^2h^4 - 9a^7c^2k^2l^2m^2 - 6a^6c^2j^2k^3m - 3a^6b^2h^1l^2m^3 + 3a^5b^3h^2l^1m^3 - 6a^6c^2g^2k^2m^3 - 6a^6c^2h^2k^3l^2 + 6a^5c^3h^3j^2m + 6a^6c^2g^2k^2l^3 - 6a^6c^2f^2k^3m^2 - 6a^5c^3h^2j^3l - 6a^5c^3g^3j^2m^2 + 6a^5c^3f^2k^3m + 3a^5b^3g^2k^2m^3 - 3a^4b^4g^2k^2m^3 + 12a^6c^2f^2j^2m^3 + 12a^4c^4f^3j^2m + 3a^5b^3e^1l^2m^3 + 3a^3b^5e^2l^1m^3 - 6a^6c^2d^2k^2m^3 - 6a^5c^3f^2j^1l^3 + 6a^5c^3d^2k^2m^3 - 6a^5c^3g^2j^3k^2 + 6a^4c^4e^3j^2m^2 - 3b^6c^2d^3j^2m - 3a^4b^4f^2j^2m^3 + 3a^3b^5f^2j^2m^3 + 6a^5c^3f^2j^2k^3 + 6a^5c^3f^2h^3m^2 - 6a^5c^3e^2j^3l^2 + 6a^4c^4g^3h^2l - 6a^4c^4f^2h^3m + 6a^4c^4e^2j^3l + 6a^3c^5d^3j^2m - 3a^4b^4d^2k^2m^3 - 3a^2b^6d^2k^2m^3 + 6a^5c^3e^2h^2m^3 - 6a^4c^4g^2h^3k - 6a^4c^4f^3h^1l^2 + 12a^5c^3e^2h^1l^3 + 12a^3c^5e^3h^2l - 3b^6c^2d^3h^1l^2 + 3b^5c^3d^3h^2l - 3a^5b^2c^2j^4m^2 + 3a^3b^5e^2h^2m^3 - 3a^2b^6e^2h^2m^3 + 6a^5c^3d^2g^2m^3 - 6a^4c^4e^2h^2k^3 - 6a^4c^4f^2h^3j^2 + 6a^4c^4e^2g^3l^2 + 6a^3c^5f^3g^2k - 6a^3c^5e^2g^3l + 6a^3c^5d^3h^1l^2 - 3b^6c^2d^3f^2m^2 - 3b^4c^4d^3f^2m + 6a^4c^4d^2g^1l^3 + 6a^4c^4e^2h^2j^3 - 6a^4c^4d^2h^3k^2 - 6a^3c^5f^2g^3j - 6a^3c^5e^3g^2k^2 + 6a^3c^5d^3f^2m^2 + 6a^3c^5d^2h^3k - 6a^2c^6d^3f^2m + 4a^5b^2c^2h^3m^3 + 3b^5c^3d^3g^2k^2 - 3b^4c^4d^3g^2k - 3a^2b^6d^2g^2m^3 + a^5b^2c^2j^3k^3 + 12a^4c^4d^2g^2k^3 + 12a^2c^6d^3g^2k + 6a^5b^2c^2h^3l^3 + 5a^5b^2c^2g^3m^3 - 5a^4b^3c^2g^3m^3 + 3b^5c^3d^3e^1l^2 + 3b^3c^5d^3e^2l - 3a^5b^2c^2h^2l^4 + a^4b^3c^2h^3l^3 + 12a^5b^2c^2f^2m^4 - 6a^3c^5d^2g^2j^3 + 6a^3c^5d^2f^3k^2 + 6a^3b^4c^2f^3m^3 + 6a^2c^6e^3f^2j - 6a^2c^6d^2f^3k - 3b^4c^4d^3f^2j^2 + 3b^3c^5d^3f^2j - 3a^2b^2c^4f^5m - 7a^4b^2c^3e^3m^3 - 7a^2b^5c^2e^3m^3 + 6a^4b^2c^3g^3k^3 - 6a^3c^5e^2g^3h^2 - 6a^2c^6d^3f^2j^2 + 5a^4b^2c^3f^3l^3 + a^4b^2c^3h^3j^3 + a^2b^5c^2f^3l^3 + 6a^3c^5d^2g^2h^3 - 6a^2c^6e^2f^3h - 3a^3b^4c^2e^1l^4 - 3a^2b^4c^3e^4l^2 - 7a^3b^2c^4d^3l^3 - 7a^2b^5c^2d^3l^3 + 6a^3b^2c^4f^3j^3 + 5a^3b^2c^4e^3k^3 + 3b^3c^5d^3e^2h - 3b^2c^6d^3e^2h + a^5b^2c^2e^3k^3 + 12a^2b^2c^5d^4k^2 - 6a^2c^6d^2f^3g^2 + 6a^2b^4c^3
\end{aligned}$$



$$\begin{aligned}
& d^3k^3 - 3a^4b^2c^2d^2k^5 + a^3b^2c^4g^3h^3 + 5a^2b^2c^5d^3j^3 - 5 \\
& *a^2b^3c^4d^3j^3 - 9a^2c^7d^2e^2f^2 + 6a^2b^2c^5e^3h^3 - 3a^2b^2c^5 \\
& e^4h^2 + a^2b^2c^5f^3g^3 + a^2b^3c^4e^3h^3 + 4a^2b^2c^5d^3h^3 - 3 \\
& *a^2b^2c^5d^2g^4 - 6a^7c^*j^1^3m^2 + 6a^7c^*h^1^2m^3 + 6a^6c^2*j^k^ \\
& 4*1 + 6a^6c^2*h^k^4*m - 6a^5c^3*h^4*k*m + 3a^6b^2*h^k*m^4 + 3a^6b^2 \\
& *g^1*m^4 - 3b^5c^3*d^4*1*m - 6a^6c^2*g*j^1^4 - 6a^6c^2*f*k^1^4 - 6a^ \\
& 6c^2*d^1^4*m + 6a^5c^3*h*j^4*k + 6a^5c^3*g*j^4*1 + 6a^5c^3*f*j^4*m - \\
& 6a^4c^4*g^4*j^1 + 6a^3c^5e^4*k*m + 6a^5b^3*f*j^4*m - 6a^4c^4*g^4* \\
& h*m + 3b^7c^d^3*j^4*m^2 - 3a^5b^3*e*k^4*m - 3a^5b^3*d^1*m^4 + 3b^4c^4 \\
& *d^4*j^1 - 3a^5b^3*g^4*h^4*m - 6a^5c^3*e*j^4*k + 6a^2c^6*d^4*j^1 + 3b^ \\
& 4c^4*d^4*h^4*m + 6a^6c^2*e*g^4*m^4 + 6a^6c^2*d^4*h^4*m + 6a^6b^2*c^j^3m^3 - \\
& 6a^5c^3*f*h^4*k + 6a^4c^4*g^4*h^4*j + 6a^4c^4*f^4*h^4*k + 6a^4c^4*e^4h^ \\
& 4*1 + 6a^4c^4*d^4*h^4*m - 6a^3c^5*f^4*h^4*k - 6a^3c^5*f^4*g^4*1 + 6a^2c^6 \\
& *d^4*h^4*m + 3a^5b^2c^2*j^5*m + a^6b^2c^3k^3l^3 + 3a^4b^4*e*g^4*m + 3a^4* \\
& b^4*d^4*h^4*m + 6b^3c^5*d^4*g^4*k - 3b^3c^5*d^4*h^4*j - 3b^3c^5*d^4*f^4*1 - 3 \\
& *b^3c^5*d^4*e^4*m + 3a^2b^7*d^2*g^4*m^3 + 6a^5c^3*d^4*f^4*1 - 6a^4c^4*e^4g^4*j^ \\
& 4 - 6a^4c^4*d^4*h^4*j^4 + 6a^3c^5*e^4g^4*j + 6a^3c^5*d^4*g^4*k - 6a^2c^6*e^ \\
& 4*g^4*j - 6a^2c^6*e^4*f^4*k - 6a^2c^6*d^4*e^4*m + 3a^4b^2c^3h^5*1 + 6a^3* \\
& c^5*f^4*g^4*h - 3a^3b^5*d^4*e^4*m + 3b^2c^6*d^4*e^4*j + 3a^5b^2c^2*g^4*k^5 + 3 \\
& *a^3b^2c^4g^5*k + 8a^2b^6c^d^3m^3 + 3b^2c^6*d^4*f^4*h - 3a^5b^2c^2*e^4*1^ \\
& 5 - 3a^2b^2c^5e^5*1 - 6a^3c^5*d^4*f^4*h^4 + 6a^2c^6*e^4*f^4*g + 6a^2c^6*d^ \\
& *f^4*h + 3a^4b^2c^3*f^4*j^5 + 3a^2b^2c^5*f^5*j + 6a^2c^7*d^3e^2*h - 6a^2c^ \\
& 7*d^2e^3*g + 3a^3b^2c^4*e^4h^5 + 6a^2b^2c^6*d^3g^3 + 3a^2b^2c^5*d^4g^5 + a \\
& *b^2c^6e^3f^3 - 9a^6c^2*j^2k^2l^2 - 9a^6c^2*h^2k^2m^2 - 9a^6c^2* \\
& g^2l^2m^2 - 18a^5c^3*f^2j^2m^2 - 9a^5c^3*h^2j^2k^2 - 9a^5c^3*g^ \\
& 2*j^2l^2 - 9a^5c^3*f^2k^2l^2 - 9a^5c^3*e^2k^2m^2 - 9a^5c^3*d^2l^ \\
& ^2m^2 - 9a^5c^3*g^2h^2m^2 - 9a^4c^4e^2j^2k^2 - 9a^4c^4*d^2j^2* \\
& l^2 - 18a^4c^4e^2h^2l^2 - 9a^4c^4g^2h^2j^2 - 9a^4c^4*f^2h^2k^ \\
& 2 - 9a^4c^4*f^2g^2l^2 - 9a^4c^4e^2g^2m^2 - 9a^4c^4*d^2h^2m^2 - \\
& 18a^3c^5*d^2g^2k^2 - 9a^3c^5e^2g^2j^2 - 9a^3c^5e^2f^2k^2 - 9 \\
& *a^3c^5*d^2h^2j^2 - 9a^3c^5*d^2f^2l^2 - 9a^3c^5*d^2e^2m^2 - 3a^ \\
& 4b^2c^2h^4l^2 - 18a^4b^2c^2*f^3m^3 + 12a^3b^2c^3*f^4m^2 - 9a^3 \\
& *c^5*f^2g^2h^2 + 4a^4b^2c^2*g^3l^3 - 3a^2b^4c^2*f^4m^2 + 14a^3b^ \\
& ^3c^2e^3m^3 - 5a^3b^3c^2*f^3l^3 - 3a^4b^2c^2*g^2k^4 - 3a^3b^2c^3 \\
& *g^4k^2 + a^3b^3c^2*g^3k^3 - 20a^2b^4c^2*d^3m^3 - 18a^3b^2c^3 \\
& *e^3l^3 + 16a^3b^2c^3*d^3m^3 + 12a^4b^2c^2e^2l^4 + 12a^2b^2c^4 \\
& *e^4l^2 - 9a^2c^6*d^2e^2j^2 + 6a^2b^4c^2e^3l^3 + 4a^3b^2c^3*f^ \\
& 3k^3 + 14a^2b^3c^3*d^3l^3 - 9a^2c^6e^2f^2g^2 - 9a^2c^6*d^2f^2* \\
& h^2 - 5a^2b^3c^3e^3k^3 - 3a^3b^2c^3*f^2j^4 - 3a^2b^2c^4*f^4j^2 \\
& + a^2b^3c^3*f^3j^3 - 18a^2b^2c^4*d^3k^3 + 12a^3b^2c^3*d^2k^4 + \\
& 4a^2b^2c^4e^3j^3 - 3a^2b^4c^2*d^2k^4 - 3a^2b^2c^4e^2h^4 + 6a^ \\
& ^7c^*k^1^4m - 3a^7b^*k^1^4m - 6a^7c^*h^k^1^4m - 6a^7c^*g^1^4m + 3a^6* \\
& b^*h^1^5 - 6a^2c^7*d^4e^4*j - 6a^2c^7*d^4*f^4*h - 3b^2c^7*d^4e^4*f + 6a^2c^7*d^ \\
& *e^4*f + 3a^2b^2c^6e^5*h - a^5b^2c^2*j^3l^3 - a^3b^4c^2g^3l^3 - a^2b^4c^ \\
& 3e^3j^3 - a^2b^2c^5e^3g^3 + 3a^7b^2*j^4m^5 + 6a^7c^2*f^4m^5 + 6a^2c^7*d^5 \\
& *k + 3b^2c^7*d^5g - 3a^6c^2*j^4m^2 - 3a^6b^2*j^2m^4 + 2a^6c^2*j^3* \\
& l^3 + a^5b^3*j^3m^3 - 2a^6c^2h^3m^3 - 3a^6c^2h^2l^4 - 3a^5c^3h^ \\
& ^4l^2 - a^2b^6c^2e^3l^3 + 20a^5c^3f^3m^3 - 15a^6c^2f^2m^4 - 15a^4 \\
& *c^4f^4m^2 + 2a^5c^3h^3k^3 - 2a^5c^3g^3l^3 + a^3b^5g^3m^3 - 3* \\
& a^5c^3g^2k^4 - 3a^4c^4g^4k^2 - 3a^4b^4f^2m^4 + 20a^4c^4e^3l^ \\
& 3 - 15a^5c^3e^2l^4 - 15a^3c^5e^4l^2 + 2a^4c^4g^3j^3 - 2a^4c^4 \\
& *f^3k^3 - 2a^4c^4*d^3m^3 - 3b^4c^4*d^4k^2 - 3a^4c^4*f^2j^4 - 3a^ \\
& 3c^5*f^4j^2 + 20a^3c^5*d^3k^3 - 15a^4c^4*d^2k^4 - 15a^2c^6*d^4k^ \\
& 2 - 2a^3c^5e^3j^3 + b^5c^3*d^3j^3 + 2a^3c^5f^3h^3 - 3a^3c^5e^2 \\
& *h^4 - 3a^2c^6e^4h^2 - 3b^2c^6*d^4g^2 + 2a^2c^6e^3g^3 - 2a^2c^ \\
& 6*d^3h^3 + b^3c^5*d^3g^3 - 3a^2c^6*d^2g^4 - a^4b^2c^2h^3k^3 - a^3 \\
& *b^2c^3g^3j^3 - a^2b^4c^2*f^3k^3 - a^2b^2c^4*f^3h^3 + 2a^7c^*k^3* \\
& m^3 + a^7b^*l^3*m^3 - 3a^7c^*j^2*m^4 + 6a^3c^5f^5m - 3a^6b^2*f^4m^5 + \\
& 6a^6c^2e^1^5 + 6a^2c^6e^5*1 + b^7c^*d^3*1^3 + a^2b^7e^3m^3 - 3b^2*
\end{aligned}$$

$$c^6*d^5*k + 6*a^5*c^3*d*k^5 - 3*a*c^7*d^4*g^2 + 2*a*c^7*d^3*f^3 + b*c^7*d^3*e^3 - a^6*b^2*k^3*m^3 - a^4*b^4*h^3*m^3 - a^2*b^6*f^3*m^3 - b^6*c^2*d^3*k^3 - b^4*c^4*d^3*h^3 - b^2*c^6*d^3*f^3 - b^8*d^3*m^3 - a^6*c^2*k^6 - a^5*c^3*j^6 - a^4*c^4*h^6 - a^3*c^5*g^6 - a^2*c^6*f^6 - a^7*c^1^6 - a*c^7*e^6 - a^8*m^6 - c^8*d^6, z, k1), k1, 1, 6) + (k*x)/c + (1*x^2)/(2*c) + (m*x^3)/(3*c)$$

**sympy** [F(-1)] time = 0.00, size = 0, normalized size = 0.00

Timed out

Verification of antiderivative is not currently implemented for this CAS.

[In] integrate((m\*x\*\*8+1\*x\*\*7+k\*x\*\*6+j\*x\*\*5+h\*x\*\*4+g\*x\*\*3+f\*x\*\*2+e\*x+d)/(c\*x\*\*6+b\*x\*\*3+a),x)

[Out] Timed out

$$3.2 \quad \int \frac{1}{a+bx^n+cx^{2n}} dx$$

**Optimal.** Leaf size=124

$$\frac{2cx {}_2F_1\left(1, \frac{1}{n}; 1 + \frac{1}{n}; -\frac{2cx^n}{b-\sqrt{b^2-4ac}}\right)}{-b\sqrt{b^2-4ac} - 4ac + b^2} - \frac{2cx {}_2F_1\left(1, \frac{1}{n}; 1 + \frac{1}{n}; -\frac{2cx^n}{b+\sqrt{b^2-4ac}}\right)}{b\sqrt{b^2-4ac} - 4ac + b^2}$$

[Out]  $-2*c*x*hypergeom([1, 1/n], [1+1/n], -2*c*x^n/(b-(-4*a*c+b^2)^(1/2)))/(b^2-4*a*c-b*(-4*a*c+b^2)^(1/2))-2*c*x*hypergeom([1, 1/n], [1+1/n], -2*c*x^n/(b+(-4*a*c+b^2)^(1/2)))/(b^2-4*a*c+b*(-4*a*c+b^2)^(1/2))$

**Rubi [A]** time = 0.08, antiderivative size = 124, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 2, integrand size = 16,  $\frac{\text{number of rules}}{\text{integrand size}} = 0.125$ , Rules used = {1347, 245}

$$\frac{2cx {}_2F_1\left(1, \frac{1}{n}; 1 + \frac{1}{n}; -\frac{2cx^n}{b-\sqrt{b^2-4ac}}\right)}{-b\sqrt{b^2-4ac} - 4ac + b^2} - \frac{2cx {}_2F_1\left(1, \frac{1}{n}; 1 + \frac{1}{n}; -\frac{2cx^n}{b+\sqrt{b^2-4ac}}\right)}{b\sqrt{b^2-4ac} - 4ac + b^2}$$

Antiderivative was successfully verified.

[In] Int[(a + b\*x^n + c\*x^(2\*n))^(-1), x]

[Out]  $(-2*c*x*Hypergeometric2F1[1, n^(-1), 1 + n^(-1), (-2*c*x^n)/(b - Sqrt[b^2 - 4*a*c])])/(b^2 - 4*a*c - b*Sqrt[b^2 - 4*a*c]) - (2*c*x*Hypergeometric2F1[1, n^(-1), 1 + n^(-1), (-2*c*x^n)/(b + Sqrt[b^2 - 4*a*c])])/(b^2 - 4*a*c + b*Sqrt[b^2 - 4*a*c])$

**Rule 245**

Int[((a\_) + (b\_.)\*(x\_)^(n\_))^(p\_), x\_Symbol] := Simp[a^p\*x\*Hypergeometric2F1[-p, 1/n, 1/n + 1, -((b\*x^n)/a)], x] /; FreeQ[{a, b, n, p}, x] && !IGtQ[p, 0] && !IntegerQ[1/n] && !ILtQ[Simplify[1/n + p], 0] && (IntegerQ[p] || GtQ[a, 0])

**Rule 1347**

Int[((a\_) + (b\_.)\*(x\_)^(n\_) + (c\_.)\*(x\_)^(n2\_))^(p\_), x\_Symbol] := With[{q = Rt[b^2 - 4\*a\*c, 2]}, Dist[c/q, Int[1/(b/2 - q/2 + c\*x^n), x], x] - Dist[c/q, Int[1/(b/2 + q/2 + c\*x^n), x], x]] /; FreeQ[{a, b, c}, x] && EqQ[n2, 2\*n] && NeQ[b^2 - 4\*a\*c, 0]

**Rubi steps**

$$\begin{aligned} \int \frac{1}{a+bx^n+cx^{2n}} dx &= \frac{c \int \frac{1}{\frac{b}{2}-\frac{1}{2}\sqrt{b^2-4ac}+cx^n} dx}{\sqrt{b^2-4ac}} - \frac{c \int \frac{1}{\frac{b}{2}+\frac{1}{2}\sqrt{b^2-4ac}+cx^n} dx}{\sqrt{b^2-4ac}} \\ &= -\frac{2cx {}_2F_1\left(1, \frac{1}{n}; 1 + \frac{1}{n}; -\frac{2cx^n}{b-\sqrt{b^2-4ac}}\right)}{b^2-4ac-b\sqrt{b^2-4ac}} - \frac{2cx {}_2F_1\left(1, \frac{1}{n}; 1 + \frac{1}{n}; -\frac{2cx^n}{b+\sqrt{b^2-4ac}}\right)}{b^2-4ac+b\sqrt{b^2-4ac}} \end{aligned}$$

**Mathematica [B]** time = 0.27, size = 261, normalized size = 2.10

$$-2cx \left( \frac{1 - \left( \frac{x^n}{x^n - \frac{\sqrt{b^2-4ac}-b}{2c}} \right)^{-1/n} {}_2F_1\left(-\frac{1}{n}, -\frac{1}{n}; \frac{n-1}{n}; \frac{b-\sqrt{b^2-4ac}}{2cx^n+b-\sqrt{b^2-4ac}}\right)}{-b\sqrt{b^2-4ac} - 4ac + b^2} + \frac{1 - 2^{-1/n} \left( \frac{cx^n}{\sqrt{b^2-4ac}+b+2cx^n} \right)^{-1/n} {}_2F_1\left(-\frac{1}{n}, -\frac{1}{n}; \frac{n}{n}\right)}{\sqrt{b^2-4ac} (\sqrt{b^2-4ac} + b)} \right)$$

Antiderivative was successfully verified.

[In] Integrate[(a + b\*x^n + c\*x^(2\*n))^(-1), x]

[Out]  $-2*c*x*((1 - \text{Hypergeometric2F1}[-n^{(-1)}, -n^{(-1)}, (-1 + n)/n, (b - \text{Sqrt}[b^2 - 4*a*c])]/(b - \text{Sqrt}[b^2 - 4*a*c] + 2*c*x^n)]/(x^n/(-1/2*(-b + \text{Sqrt}[b^2 - 4*a*c])/c + x^n))^{n^{(-1)}}/(b^2 - 4*a*c - b*\text{Sqrt}[b^2 - 4*a*c]) + (1 - \text{Hypergeometric2F1}[-n^{(-1)}, -n^{(-1)}, (-1 + n)/n, (b + \text{Sqrt}[b^2 - 4*a*c])]/(b + \text{Sqrt}[b^2 - 4*a*c] + 2*c*x^n)]/(2^n^{(-1)}*((c*x^n)/(b + \text{Sqrt}[b^2 - 4*a*c] + 2*c*x^n))^{n^{(-1)}})/(\text{Sqrt}[b^2 - 4*a*c]*(b + \text{Sqrt}[b^2 - 4*a*c]))$

**fricas** [F] time = 0.65, size = 0, normalized size = 0.00

$$\text{integral}\left(\frac{1}{cx^{2n} + bx^n + a}, x\right)$$

Verification of antiderivative is not currently implemented for this CAS.

[In] integrate(1/(a+b\*x^n+c\*x^(2\*n)), x, algorithm="fricas")

[Out] integral(1/(c\*x^(2\*n) + b\*x^n + a), x)

**giac** [F] time = 0.00, size = 0, normalized size = 0.00

$$\int \frac{1}{cx^{2n} + bx^n + a} dx$$

Verification of antiderivative is not currently implemented for this CAS.

[In] integrate(1/(a+b\*x^n+c\*x^(2\*n)), x, algorithm="giac")

[Out] integrate(1/(c\*x^(2\*n) + b\*x^n + a), x)

**maple** [F] time = 0.00, size = 0, normalized size = 0.00

$$\int \frac{1}{bx^n + cx^{2n} + a} dx$$

Verification of antiderivative is not currently implemented for this CAS.

[In] int(1/(b\*x^n+c\*x^(2\*n)+a), x)

[Out] int(1/(b\*x^n+c\*x^(2\*n)+a), x)

**maxima** [F] time = 0.00, size = 0, normalized size = 0.00

$$\int \frac{1}{cx^{2n} + bx^n + a} dx$$

Verification of antiderivative is not currently implemented for this CAS.

[In] integrate(1/(a+b\*x^n+c\*x^(2\*n)), x, algorithm="maxima")

[Out] integrate(1/(c\*x^(2\*n) + b\*x^n + a), x)

**mupad** [F] time = 0.00, size = -1, normalized size = -0.01

$$\int \frac{1}{a + bx^n + cx^{2n}} dx$$

Verification of antiderivative is not currently implemented for this CAS.

[In] int(1/(a + b\*x^n + c\*x^(2\*n)), x)

[Out] int(1/(a + b\*x^n + c\*x^(2\*n)), x)

sympy [F] time = 0.00, size = 0, normalized size = 0.00

$$\int \frac{1}{a + bx^n + cx^{2n}} dx$$

Verification of antiderivative is not currently implemented for this CAS.

```
[In] integrate(1/(a+b*x**n+c*x**(2*n)), x)
```

```
[Out] Integral(1/(a + b*x**n + c*x**(2*n)), x)
```

### 3.3 $\int \frac{d+ex}{a+bx^n+cx^{2n}} dx$

**Optimal.** Leaf size=263

$$\frac{2cdx {}_2F_1\left(1, \frac{1}{n}; 1 + \frac{1}{n}; -\frac{2cx^n}{b-\sqrt{b^2-4ac}}\right)}{-b\sqrt{b^2-4ac} - 4ac + b^2} - \frac{2cdx {}_2F_1\left(1, \frac{1}{n}; 1 + \frac{1}{n}; -\frac{2cx^n}{b+\sqrt{b^2-4ac}}\right)}{b\sqrt{b^2-4ac} - 4ac + b^2} - \frac{cex^2 {}_2F_1\left(1, \frac{2}{n}; \frac{n+2}{n}; -\frac{2cx^n}{b-\sqrt{b^2-4ac}}\right)}{-b\sqrt{b^2-4ac} - 4ac + b^2} - \frac{cex^2 {}_2F_1\left(1, \frac{2}{n}; \frac{n+2}{n}; -\frac{2cx^n}{b+\sqrt{b^2-4ac}}\right)}{b\sqrt{b^2-4ac} - 4ac + b^2}$$

[Out]  $-2*c*d*x*\text{hypergeom}([1, 1/n], [1+1/n], -2*c*x^n/(b-(-4*a*c+b^2)^(1/2)))/(b^2-4*a*c-b*(-4*a*c+b^2)^(1/2))-c*e*x^2*\text{hypergeom}([1, 2/n], [(2+n)/n], -2*c*x^n/(b-(-4*a*c+b^2)^(1/2)))/(b^2-4*a*c-b*(-4*a*c+b^2)^(1/2))-2*c*d*x*\text{hypergeom}([1, 1/n], [1+1/n], -2*c*x^n/(b+(-4*a*c+b^2)^(1/2)))/(b^2-4*a*c+b*(-4*a*c+b^2)^(1/2))-c*e*x^2*\text{hypergeom}([1, 2/n], [(2+n)/n], -2*c*x^n/(b+(-4*a*c+b^2)^(1/2)))/(b^2-4*a*c+b*(-4*a*c+b^2)^(1/2))$

**Rubi [A]** time = 0.26, antiderivative size = 263, normalized size of antiderivative = 1.00, number of steps used = 9, number of rules used = 4, integrand size = 22,  $\frac{\text{number of rules}}{\text{integrand size}} = 0.182$ , Rules used = {1793, 1893, 245, 364}

$$\frac{2cdx {}_2F_1\left(1, \frac{1}{n}; 1 + \frac{1}{n}; -\frac{2cx^n}{b-\sqrt{b^2-4ac}}\right)}{-b\sqrt{b^2-4ac} - 4ac + b^2} - \frac{2cdx {}_2F_1\left(1, \frac{1}{n}; 1 + \frac{1}{n}; -\frac{2cx^n}{b+\sqrt{b^2-4ac}}\right)}{b\sqrt{b^2-4ac} - 4ac + b^2} - \frac{cex^2 {}_2F_1\left(1, \frac{2}{n}; \frac{n+2}{n}; -\frac{2cx^n}{b-\sqrt{b^2-4ac}}\right)}{-b\sqrt{b^2-4ac} - 4ac + b^2} - \frac{cex^2 {}_2F_1\left(1, \frac{2}{n}; \frac{n+2}{n}; -\frac{2cx^n}{b+\sqrt{b^2-4ac}}\right)}{b\sqrt{b^2-4ac} - 4ac + b^2}$$

Antiderivative was successfully verified.

[In] Int[(d + e\*x)/(a + b\*x^n + c\*x^(2\*n)), x]

[Out]  $(-2*c*d*x*\text{Hypergeometric2F1}[1, n^(-1), 1 + n^(-1), (-2*c*x^n)/(b - \text{Sqrt}[b^2 - 4*a*c])])/(b^2 - 4*a*c - b*\text{Sqrt}[b^2 - 4*a*c]) - (2*c*d*x*\text{Hypergeometric2F1}[1, n^(-1), 1 + n^(-1), (-2*c*x^n)/(b + \text{Sqrt}[b^2 - 4*a*c])])/(b^2 - 4*a*c + b*\text{Sqrt}[b^2 - 4*a*c]) - (c*e*x^2*\text{Hypergeometric2F1}[1, 2/n, (2 + n)/n, (-2*c*x^n)/(b - \text{Sqrt}[b^2 - 4*a*c])])/(b^2 - 4*a*c - b*\text{Sqrt}[b^2 - 4*a*c]) - (c*e*x^2*\text{Hypergeometric2F1}[1, 2/n, (2 + n)/n, (-2*c*x^n)/(b + \text{Sqrt}[b^2 - 4*a*c])])/(b^2 - 4*a*c + b*\text{Sqrt}[b^2 - 4*a*c])$

#### Rule 245

Int[((a\_) + (b\_.)\*(x\_)^(n\_))^(p\_), x\_Symbol] := Simp[a^p\*x\*Hypergeometric2F1[-p, 1/n, 1/n + 1, -((b\*x^n)/a)], x] /; FreeQ[{a, b, n, p}, x] && !IGtQ[p, 0] && !IntegerQ[1/n] && !ILtQ[Simplify[1/n + p], 0] && (IntegerQ[p] || GtQ[a, 0])

#### Rule 364

Int[((c\_.)\*(x\_)^(m\_.))\*((a\_) + (b\_.)\*(x\_)^(n\_))^(p\_), x\_Symbol] := Simp[(a^p\*(c\*x)^(m + 1)\*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1, -((b\*x^n)/a)])/((c\*(m + 1)), x] /; FreeQ[{a, b, c, m, n, p}, x] && !IGtQ[p, 0] && (ILtQ[p, 0] || GtQ[a, 0])

#### Rule 1793

Int[(Pq\_)/((a\_) + (b\_.)\*(x\_)^(n\_.) + (c\_.)\*(x\_)^(n2\_.)), x\_Symbol] := With[{q = Rt[b^2 - 4\*a\*c, 2]}, Dist[(2\*c)/q, Int[Pq/(b - q + 2\*c\*x^n), x], x] - Dist[(2\*c)/q, Int[Pq/(b + q + 2\*c\*x^n), x], x]] /; FreeQ[{a, b, c, n}, x] && EqQ[n2, 2\*n] && PolyQ[Pq, x] && NeQ[b^2 - 4\*a\*c, 0]

#### Rule 1893

Int[(Pq\_)\*((a\_) + (b\_.)\*(x\_)^(n\_))^(p\_.), x\_Symbol] := Int[ExpandIntegrand[Pq\*(a + b\*x^n)^p, x], x] /; FreeQ[{a, b, n, p}, x] && (PolyQ[Pq, x] || Poly

Q[Pq, x^n])

Rubi steps

$$\begin{aligned}
\int \frac{d+ex}{a+bx^n+cx^{2n}} dx &= \frac{(2c) \int \frac{d+ex}{b-\sqrt{b^2-4ac}+2cx^n} dx}{\sqrt{b^2-4ac}} - \frac{(2c) \int \frac{d+ex}{b+\sqrt{b^2-4ac}+2cx^n} dx}{\sqrt{b^2-4ac}} \\
&= \frac{(2c) \int \left( -\frac{d}{-b+\sqrt{b^2-4ac}-2cx^n} - \frac{ex}{-b+\sqrt{b^2-4ac}-2cx^n} \right) dx}{\sqrt{b^2-4ac}} - \frac{(2c) \int \left( \frac{d}{b+\sqrt{b^2-4ac}+2cx^n} + \frac{ex}{b+\sqrt{b^2-4ac}+2cx^n} \right) dx}{\sqrt{b^2-4ac}} \\
&= -\frac{(2cd) \int \frac{1}{-b+\sqrt{b^2-4ac}-2cx^n} dx}{\sqrt{b^2-4ac}} - \frac{(2cd) \int \frac{1}{b+\sqrt{b^2-4ac}+2cx^n} dx}{\sqrt{b^2-4ac}} - \frac{(2ce) \int \frac{x}{-b+\sqrt{b^2-4ac}-2cx^n} dx}{\sqrt{b^2-4ac}} \\
&= -\frac{2cdx {}_2F_1\left(1, \frac{1}{n}; 1 + \frac{1}{n}; -\frac{2cx^n}{b-\sqrt{b^2-4ac}}\right)}{b^2-4ac-b\sqrt{b^2-4ac}} - \frac{2cdx {}_2F_1\left(1, \frac{1}{n}; 1 + \frac{1}{n}; -\frac{2cx^n}{b+\sqrt{b^2-4ac}}\right)}{b^2-4ac+b\sqrt{b^2-4ac}} - \frac{cex^2 {}_2F_1\left(1, \frac{1}{n}; 1 + \frac{1}{n}; -\frac{2cx^n}{b-\sqrt{b^2-4ac}}\right)}{b^2-4ac}
\end{aligned}$$

**Mathematica [A]** time = 1.19, size = 525, normalized size = 2.00

$$cx \left( -2d \left( \frac{1 - \left( \frac{x^n}{x^n - \frac{\sqrt{b^2-4ac}-b}{2c}} \right)^{-1/n} {}_2F_1\left(-\frac{1}{n}, -\frac{1}{n}; \frac{n-1}{n}; \frac{b-\sqrt{b^2-4ac}}{2cx^n+b-\sqrt{b^2-4ac}}\right)}{-b\sqrt{b^2-4ac}-4ac+b^2} + \frac{1 - 2^{-1/n} \left( \frac{cx^n}{\sqrt{b^2-4ac}+b+2cx^n} \right)^{-1/n} {}_2F_1\left(-\frac{1}{n}, -\frac{1}{n}; \frac{n-1}{n}; \frac{b+\sqrt{b^2-4ac}}{2cx^n+b+\sqrt{b^2-4ac}}\right)}{\sqrt{b^2-4ac}(\sqrt{b^2-4ac}+b+2cx^n)} \right) \right)$$

Antiderivative was successfully verified.

**[In]** Integrate[(d + e\*x)/(a + b\*x^n + c\*x^(2\*n)), x]

**[Out]** c\*x\*(-(e\*x\*((1 - Hypergeometric2F1[-2/n, -2/n, (-2 + n)/n, (b - Sqrt[b^2 - 4\*a\*c])/(b - Sqrt[b^2 - 4\*a\*c] + 2\*c\*x^n)]/(x^n/(-1/2\*(-b + Sqrt[b^2 - 4\*a\*c])/c + x^n))^(2/n))/(b^2 - 4\*a\*c - b\*Sqrt[b^2 - 4\*a\*c]) + (1 - Hypergeometric2F1[-2/n, -2/n, (-2 + n)/n, (b + Sqrt[b^2 - 4\*a\*c])/(b + Sqrt[b^2 - 4\*a\*c] + 2\*c\*x^n)]/(4^n^(-1)\*((c\*x^n)/(b + Sqrt[b^2 - 4\*a\*c] + 2\*c\*x^n))^(2/n))/(Sqrt[b^2 - 4\*a\*c]\*(b + Sqrt[b^2 - 4\*a\*c]))) - 2\*d\*((1 - Hypergeometric2F1[-n^(-1), -n^(-1), (-1 + n)/n, (b - Sqrt[b^2 - 4\*a\*c])/(b - Sqrt[b^2 - 4\*a\*c] + 2\*c\*x^n)]/(x^n/(-1/2\*(-b + Sqrt[b^2 - 4\*a\*c])/c + x^n))^(2/n))/(b^2 - 4\*a\*c - b\*Sqrt[b^2 - 4\*a\*c]) + (1 - Hypergeometric2F1[-n^(-1), -n^(-1), (-1 + n)/n, (b + Sqrt[b^2 - 4\*a\*c])/(b + Sqrt[b^2 - 4\*a\*c] + 2\*c\*x^n)]/(2^n^(-1)\*((c\*x^n)/(b + Sqrt[b^2 - 4\*a\*c] + 2\*c\*x^n))^(2/n))/(Sqrt[b^2 - 4\*a\*c]\*(b + Sqrt[b^2 - 4\*a\*c])))

**fricas [F]** time = 0.91, size = 0, normalized size = 0.00

$$\text{integral}\left(\frac{ex+d}{cx^{2n}+bx^n+a}, x\right)$$

Verification of antiderivative is not currently implemented for this CAS.

**[In]** integrate((e\*x+d)/(a+b\*x^n+c\*x^(2\*n)), x, algorithm="fricas")**[Out]** integral((e\*x + d)/(c\*x^(2\*n) + b\*x^n + a), x)**giac [F]** time = 0.00, size = 0, normalized size = 0.00

$$\int \frac{ex+d}{cx^{2n}+bx^n+a} dx$$

Verification of antiderivative is not currently implemented for this CAS.

[In] integrate((e\*x+d)/(a+b\*x^n+c\*x^(2\*n)),x, algorithm="giac")

[Out] integrate((e\*x + d)/(c\*x^(2\*n) + b\*x^n + a), x)

maple [F] time = 0.03, size = 0, normalized size = 0.00

$$\int \frac{ex + d}{bx^n + cx^{2n} + a} dx$$

Verification of antiderivative is not currently implemented for this CAS.

[In] int((e\*x+d)/(b\*x^n+c\*x^(2\*n)+a),x)

[Out] int((e\*x+d)/(b\*x^n+c\*x^(2\*n)+a),x)

maxima [F] time = 0.00, size = 0, normalized size = 0.00

$$\int \frac{ex + d}{cx^{2n} + bx^n + a} dx$$

Verification of antiderivative is not currently implemented for this CAS.

[In] integrate((e\*x+d)/(a+b\*x^n+c\*x^(2\*n)),x, algorithm="maxima")

[Out] integrate((e\*x + d)/(c\*x^(2\*n) + b\*x^n + a), x)

mupad [F] time = 0.00, size = -1, normalized size = -0.00

$$\int \frac{d + ex}{a + bx^n + cx^{2n}} dx$$

Verification of antiderivative is not currently implemented for this CAS.

[In] int((d + e\*x)/(a + b\*x^n + c\*x^(2\*n)),x)

[Out] int((d + e\*x)/(a + b\*x^n + c\*x^(2\*n)), x)

sympy [F] time = 0.00, size = 0, normalized size = 0.00

$$\int \frac{d + ex}{a + bx^n + cx^{2n}} dx$$

Verification of antiderivative is not currently implemented for this CAS.

[In] integrate((e\*x+d)/(a+b\*x\*\*n+c\*x\*\*(2\*n)),x)

[Out] Integral((d + e\*x)/(a + b\*x\*\*n + c\*x\*\*(2\*n)), x)



### 3.4 $\int \frac{d+ex+fx^2}{a+bx^n+cx^{2n}} dx$

**Optimal.** Leaf size=404

$$\frac{2cdx {}_2F_1\left(1, \frac{1}{n}; 1 + \frac{1}{n}; -\frac{2cx^n}{b-\sqrt{b^2-4ac}}\right)}{-b\sqrt{b^2-4ac} - 4ac + b^2} - \frac{2cdx {}_2F_1\left(1, \frac{1}{n}; 1 + \frac{1}{n}; -\frac{2cx^n}{b+\sqrt{b^2-4ac}}\right)}{b\sqrt{b^2-4ac} - 4ac + b^2} - \frac{cex^2 {}_2F_1\left(1, \frac{2}{n}; \frac{n+2}{n}; -\frac{2cx^n}{b-\sqrt{b^2-4ac}}\right)}{-b\sqrt{b^2-4ac} - 4ac + b^2} - \frac{cex^2 {}_2F_1\left(1, \frac{2}{n}; \frac{n+2}{n}; -\frac{2cx^n}{b+\sqrt{b^2-4ac}}\right)}{b\sqrt{b^2-4ac} - 4ac + b^2}$$

[Out]  $-2*c*d*x*\text{hypergeom}([1, 1/n], [1+1/n], -2*c*x^n/(b-(-4*a*c+b^2)^(1/2)))/(b^2-4*a*c-b*(-4*a*c+b^2)^(1/2))-c*e*x^2*\text{hypergeom}([1, 2/n], [(2+n)/n], -2*c*x^n/(b-(-4*a*c+b^2)^(1/2)))/(b^2-4*a*c-b*(-4*a*c+b^2)^(1/2))-2/3*c*f*x^3*\text{hypergeom}([1, 3/n], [(3+n)/n], -2*c*x^n/(b-(-4*a*c+b^2)^(1/2)))/(b^2-4*a*c-b*(-4*a*c+b^2)^(1/2))-2*c*d*x*\text{hypergeom}([1, 1/n], [1+1/n], -2*c*x^n/(b+(-4*a*c+b^2)^(1/2)))/(b^2-4*a*c+b*(-4*a*c+b^2)^(1/2))-c*e*x^2*\text{hypergeom}([1, 2/n], [(2+n)/n], -2*c*x^n/(b+(-4*a*c+b^2)^(1/2)))/(b^2-4*a*c+b*(-4*a*c+b^2)^(1/2))-2/3*c*f*x^3*\text{hypergeom}([1, 3/n], [(3+n)/n], -2*c*x^n/(b+(-4*a*c+b^2)^(1/2)))/(b^2-4*a*c+b*(-4*a*c+b^2)^(1/2))$

**Rubi [A]** time = 0.28, antiderivative size = 404, normalized size of antiderivative = 1.00, number of steps used = 11, number of rules used = 4, integrand size = 27,  $\frac{\text{number of rules}}{\text{integrand size}} = 0.148$ , Rules used = {1793, 1893, 245, 364}

$$\frac{2cdx {}_2F_1\left(1, \frac{1}{n}; 1 + \frac{1}{n}; -\frac{2cx^n}{b-\sqrt{b^2-4ac}}\right)}{-b\sqrt{b^2-4ac} - 4ac + b^2} - \frac{2cdx {}_2F_1\left(1, \frac{1}{n}; 1 + \frac{1}{n}; -\frac{2cx^n}{b+\sqrt{b^2-4ac}}\right)}{b\sqrt{b^2-4ac} - 4ac + b^2} - \frac{cex^2 {}_2F_1\left(1, \frac{2}{n}; \frac{n+2}{n}; -\frac{2cx^n}{b-\sqrt{b^2-4ac}}\right)}{-b\sqrt{b^2-4ac} - 4ac + b^2} - \frac{cex^2 {}_2F_1\left(1, \frac{2}{n}; \frac{n+2}{n}; -\frac{2cx^n}{b+\sqrt{b^2-4ac}}\right)}{b\sqrt{b^2-4ac} - 4ac + b^2}$$

Antiderivative was successfully verified.

[In] Int[(d + e\*x + f\*x^2)/(a + b\*x^n + c\*x^(2\*n)), x]

[Out]  $(-2*c*d*x*\text{Hypergeometric2F1}[1, n^(-1), 1 + n^(-1), (-2*c*x^n)/(b - \text{Sqrt}[b^2 - 4*a*c])])/(b^2 - 4*a*c - b*\text{Sqrt}[b^2 - 4*a*c]) - (2*c*d*x*\text{Hypergeometric2F1}[1, n^(-1), 1 + n^(-1), (-2*c*x^n)/(b + \text{Sqrt}[b^2 - 4*a*c])])/(b^2 - 4*a*c + b*\text{Sqrt}[b^2 - 4*a*c]) - (c*e*x^2*\text{Hypergeometric2F1}[1, 2/n, (2 + n)/n, (-2*c*x^n)/(b - \text{Sqrt}[b^2 - 4*a*c])])/(b^2 - 4*a*c - b*\text{Sqrt}[b^2 - 4*a*c]) - (c*e*x^2*\text{Hypergeometric2F1}[1, 2/n, (2 + n)/n, (-2*c*x^n)/(b + \text{Sqrt}[b^2 - 4*a*c])])/(b^2 - 4*a*c + b*\text{Sqrt}[b^2 - 4*a*c]) - (2*c*f*x^3*\text{Hypergeometric2F1}[1, 3/n, (3 + n)/n, (-2*c*x^n)/(b - \text{Sqrt}[b^2 - 4*a*c])])/(3*(b^2 - 4*a*c - b*\text{Sqrt}[b^2 - 4*a*c])) - (2*c*f*x^3*\text{Hypergeometric2F1}[1, 3/n, (3 + n)/n, (-2*c*x^n)/(b + \text{Sqrt}[b^2 - 4*a*c])])/(3*(b^2 - 4*a*c + b*\text{Sqrt}[b^2 - 4*a*c]))$

#### Rule 245

Int[((a\_) + (b\_.)\*(x\_)^(n\_))^(p\_), x\_Symbol] := Simp[a^p\*x\*Hypergeometric2F1[-p, 1/n, 1/n + 1, -((b\*x^n)/a)], x] /; FreeQ[{a, b, n, p}, x] && !IGtQ[p, 0] && !IntegerQ[1/n] && !LtQ[Simplify[1/n + p], 0] && (IntegerQ[p] || GtQ[a, 0])

#### Rule 364

Int[((c\_.)\*(x\_)^(m\_.))\*((a\_) + (b\_.)\*(x\_)^(n\_))^(p\_), x\_Symbol] := Simp[(a^p\*(c\*x)^(m+1)\*Hypergeometric2F1[-p, (m+1)/n, (m+1)/n + 1, -((b\*x^n)/a)])/(c\*(m+1)), x] /; FreeQ[{a, b, c, m, n, p}, x] && !IGtQ[p, 0] && (LtQ[p, 0] || GtQ[a, 0])

#### Rule 1793

Int[(Pq\_)/((a\_) + (b\_.)\*(x\_)^(n\_.) + (c\_.)\*(x\_)^(n2\_.)), x\_Symbol] := With[{q = Rt[b^2 - 4\*a\*c, 2]}, Dist[(2\*c)/q, Int[Pq/(b - q + 2\*c\*x^n), x], x] -

Dist[(2\*c)/q, Int[Pq/(b + q + 2\*c\*x^n), x], x] /; FreeQ[{a, b, c, n}, x] & & EqQ[n2, 2\*n] && PolyQ[Pq, x] && NeQ[b^2 - 4\*a\*c, 0]

### Rule 1893

Int[(Pq\_)\*((a\_) + (b\_)\*(x\_)^(n\_))^(p\_), x\_Symbol] :> Int[ExpandIntegrand[Pq\*(a + b\*x^n)^p, x], x] /; FreeQ[{a, b, n, p}, x] && (PolyQ[Pq, x] || PolyQ[Pq, x^n])

### Rubi steps

$$\begin{aligned} \int \frac{d + ex + fx^2}{a + bx^n + cx^{2n}} dx &= \frac{(2c) \int \frac{d+ex+fx^2}{b-\sqrt{b^2-4ac}+2cx^n} dx}{\sqrt{b^2-4ac}} - \frac{(2c) \int \frac{d+ex+fx^2}{b+\sqrt{b^2-4ac}+2cx^n} dx}{\sqrt{b^2-4ac}} \\ &= \frac{(2c) \int \left( \frac{d}{-b+\sqrt{b^2-4ac}-2cx^n} - \frac{ex}{-b+\sqrt{b^2-4ac}-2cx^n} - \frac{fx^2}{-b+\sqrt{b^2-4ac}-2cx^n} \right) dx}{\sqrt{b^2-4ac}} - \frac{(2c) \int \left( \frac{d}{b+\sqrt{b^2-4ac}+2cx^n} \right) dx}{\sqrt{b^2-4ac}} \\ &= -\frac{(2cd) \int \frac{1}{-b+\sqrt{b^2-4ac}-2cx^n} dx}{\sqrt{b^2-4ac}} - \frac{(2cd) \int \frac{1}{b+\sqrt{b^2-4ac}+2cx^n} dx}{\sqrt{b^2-4ac}} - \frac{(2ce) \int \frac{x}{-b+\sqrt{b^2-4ac}-2cx^n} dx}{\sqrt{b^2-4ac}} \\ &= -\frac{2cdx {}_2F_1\left(1, \frac{1}{n}; 1 + \frac{1}{n}; -\frac{2cx^n}{b-\sqrt{b^2-4ac}}\right)}{b^2-4ac-b\sqrt{b^2-4ac}} - \frac{2cdx {}_2F_1\left(1, \frac{1}{n}; 1 + \frac{1}{n}; -\frac{2cx^n}{b+\sqrt{b^2-4ac}}\right)}{b^2-4ac+b\sqrt{b^2-4ac}} - \frac{cex^2 {}_2F_1\left(1, \frac{2}{n}; \right)}{b^2-4ac} \end{aligned}$$

**Mathematica [B]** time = 1.13, size = 834, normalized size = 2.06

$$x \left( 2f \left( \left( -b^2 - \sqrt{b^2 - 4ac} b + 4ac \right) \left( 1 - \left( \frac{x^n}{x^n - \frac{\sqrt{b^2 - 4ac} - b}{2c}} \right)^{-3/n} {}_2F_1 \left( -\frac{3}{n}, -\frac{3}{n}; \frac{n-3}{n}; \frac{b - \sqrt{b^2 - 4ac}}{2cx^n + b - \sqrt{b^2 - 4ac}} \right) \right) + \left( -b^2 + \sqrt{b^2 - 4ac} b \right) \right)$$

Antiderivative was successfully verified.

[In] Integrate[(d + e\*x + f\*x^2)/(a + b\*x^n + c\*x^(2\*n)), x]

[Out] (x\*(2\*f\*x^2\*((-b^2 + 4\*a\*c - b\*Sqrt[b^2 - 4\*a\*c])\*(1 - Hypergeometric2F1[-3/n, -3/n, (-3 + n)/n, (b - Sqrt[b^2 - 4\*a\*c])/(b - Sqrt[b^2 - 4\*a\*c] + 2\*c\*x^n)]/(x^n/(-1/2\*(-b + Sqrt[b^2 - 4\*a\*c])/c + x^n))^(3/n)) + (-b^2 + 4\*a\*c + b\*Sqrt[b^2 - 4\*a\*c])\*(1 - Hypergeometric2F1[-3/n, -3/n, (-3 + n)/n, (b + Sqrt[b^2 - 4\*a\*c])/(b + Sqrt[b^2 - 4\*a\*c] + 2\*c\*x^n)]/(8^n^(-1)\*((c\*x^n)/(b + Sqrt[b^2 - 4\*a\*c] + 2\*c\*x^n))^(3/n)))) + 3\*e\*x\*((-b^2 + 4\*a\*c - b\*Sqrt[b^2 - 4\*a\*c])\*(1 - Hypergeometric2F1[-2/n, -2/n, (-2 + n)/n, (b - Sqrt[b^2 - 4\*a\*c])/(b - Sqrt[b^2 - 4\*a\*c] + 2\*c\*x^n)]/(x^n/(-1/2\*(-b + Sqrt[b^2 - 4\*a\*c])/c + x^n))^(2/n)) + (-b^2 + 4\*a\*c + b\*Sqrt[b^2 - 4\*a\*c])\*(1 - Hypergeometric2F1[-2/n, -2/n, (-2 + n)/n, (b + Sqrt[b^2 - 4\*a\*c])/(b + Sqrt[b^2 - 4\*a\*c] + 2\*c\*x^n)]/(4^n^(-1)\*((c\*x^n)/(b + Sqrt[b^2 - 4\*a\*c] + 2\*c\*x^n))^(2/n)))) + 6\*d\*((-b^2 + 4\*a\*c - b\*Sqrt[b^2 - 4\*a\*c])\*(1 - Hypergeometric2F1[-n^(-1), -n^(-1), (-1 + n)/n, (b - Sqrt[b^2 - 4\*a\*c])/(b - Sqrt[b^2 - 4\*a\*c] + 2\*c\*x^n)]/(x^n/(-1/2\*(-b + Sqrt[b^2 - 4\*a\*c])/c + x^n))^n^(-1)) - (Sqrt[b^2 - 4\*a\*c]\*(-b + Sqrt[b^2 - 4\*a\*c])\*(2^n^(-1)\*((c\*x^n)/(b + Sqrt[b^2 - 4\*a\*c] + 2\*c\*x^n))^n^(-1) - Hypergeometric2F1[-n^(-1), -n^(-1), (-1 + n)/n, (b + Sqrt[b^2 - 4\*a\*c])/(b + Sqrt[b^2 - 4\*a\*c] + 2\*c\*x^n)]/(2^n^(-1)\*((c\*x^n)/(b + Sqrt[b^2 - 4\*a\*c] + 2\*c\*x^n))^n^(-1)))))/(12\*a\*(-b^2 + 4\*a\*c))

**fricas [F]** time = 0.81, size = 0, normalized size = 0.00

$$\text{integral} \left( \frac{fx^2 + ex + d}{cx^{2n} + bx^n + a}, x \right)$$

Verification of antiderivative is not currently implemented for this CAS.

[In] integrate((f\*x^2+e\*x+d)/(a+b\*x^n+c\*x^(2\*n)),x, algorithm="fricas")

[Out] integral((f\*x^2 + e\*x + d)/(c\*x^(2\*n) + b\*x^n + a), x)

**giac** [F] time = 0.00, size = 0, normalized size = 0.00

$$\int \frac{fx^2 + ex + d}{cx^{2n} + bx^n + a} dx$$

Verification of antiderivative is not currently implemented for this CAS.

[In] integrate((f\*x^2+e\*x+d)/(a+b\*x^n+c\*x^(2\*n)),x, algorithm="giac")

[Out] integrate((f\*x^2 + e\*x + d)/(c\*x^(2\*n) + b\*x^n + a), x)

**maple** [F] time = 0.04, size = 0, normalized size = 0.00

$$\int \frac{fx^2 + ex + d}{bx^n + cx^{2n} + a} dx$$

Verification of antiderivative is not currently implemented for this CAS.

[In] int((f\*x^2+e\*x+d)/(b\*x^n+c\*x^(2\*n)+a),x)

[Out] int((f\*x^2+e\*x+d)/(b\*x^n+c\*x^(2\*n)+a),x)

**maxima** [F] time = 0.00, size = 0, normalized size = 0.00

$$\int \frac{fx^2 + ex + d}{cx^{2n} + bx^n + a} dx$$

Verification of antiderivative is not currently implemented for this CAS.

[In] integrate((f\*x^2+e\*x+d)/(a+b\*x^n+c\*x^(2\*n)),x, algorithm="maxima")

[Out] integrate((f\*x^2 + e\*x + d)/(c\*x^(2\*n) + b\*x^n + a), x)

**mupad** [F] time = 0.00, size = -1, normalized size = -0.00

$$\int \frac{fx^2 + ex + d}{a + bx^n + cx^{2n}} dx$$

Verification of antiderivative is not currently implemented for this CAS.

[In] int((d + e\*x + f\*x^2)/(a + b\*x^n + c\*x^(2\*n)),x)

[Out] int((d + e\*x + f\*x^2)/(a + b\*x^n + c\*x^(2\*n)), x)

**sympy** [F] time = 0.00, size = 0, normalized size = 0.00

$$\int \frac{d + ex + fx^2}{a + bx^n + cx^{2n}} dx$$

Verification of antiderivative is not currently implemented for this CAS.

[In] integrate((f\*x\*\*2+e\*x+d)/(a+b\*x\*\*n+c\*x\*\*(2\*n)),x)

[Out] Integral((d + e\*x + f\*x\*\*2)/(a + b\*x\*\*n + c\*x\*\*(2\*n)), x)

### 3.5 $\int \frac{d+ex+fx^2+gx^3}{a+bx^n+cx^{2n}} dx$

**Optimal.** Leaf size=545

$$\frac{2cdx {}_2F_1\left(1, \frac{1}{n}; 1 + \frac{1}{n}; -\frac{2cx^n}{b-\sqrt{b^2-4ac}}\right)}{-b\sqrt{b^2-4ac} - 4ac + b^2} - \frac{2cdx {}_2F_1\left(1, \frac{1}{n}; 1 + \frac{1}{n}; -\frac{2cx^n}{b+\sqrt{b^2-4ac}}\right)}{b\sqrt{b^2-4ac} - 4ac + b^2} - \frac{cex^2 {}_2F_1\left(1, \frac{2}{n}; \frac{n+2}{n}; -\frac{2cx^n}{b-\sqrt{b^2-4ac}}\right)}{-b\sqrt{b^2-4ac} - 4ac + b^2} - \frac{cex^2 {}_2F_1\left(1, \frac{2}{n}; \frac{n+2}{n}; -\frac{2cx^n}{b+\sqrt{b^2-4ac}}\right)}{b\sqrt{b^2-4ac} - 4ac + b^2}$$

[Out]  $-2*c*d*x*hypergeom([1, 1/n], [1+1/n], -2*c*x^n/(b-(-4*a*c+b^2)^(1/2)))/(b^2-4*a*c-b*(-4*a*c+b^2)^(1/2))-c*e*x^2*hypergeom([1, 2/n], [(2+n)/n], -2*c*x^n/(b-(-4*a*c+b^2)^(1/2)))/(b^2-4*a*c-b*(-4*a*c+b^2)^(1/2))-2/3*c*f*x^3*hypergeom([1, 3/n], [(3+n)/n], -2*c*x^n/(b-(-4*a*c+b^2)^(1/2)))/(b^2-4*a*c-b*(-4*a*c+b^2)^(1/2))-1/2*c*g*x^4*hypergeom([1, 4/n], [(4+n)/n], -2*c*x^n/(b-(-4*a*c+b^2)^(1/2)))/(b^2-4*a*c-b*(-4*a*c+b^2)^(1/2))-2*c*d*x*hypergeom([1, 1/n], [1+1/n], -2*c*x^n/(b+(-4*a*c+b^2)^(1/2)))/(b^2-4*a*c+b*(-4*a*c+b^2)^(1/2))-c*e*x^2*hypergeom([1, 2/n], [(2+n)/n], -2*c*x^n/(b+(-4*a*c+b^2)^(1/2)))/(b^2-4*a*c+b*(-4*a*c+b^2)^(1/2))-2/3*c*f*x^3*hypergeom([1, 3/n], [(3+n)/n], -2*c*x^n/(b+(-4*a*c+b^2)^(1/2)))/(b^2-4*a*c+b*(-4*a*c+b^2)^(1/2))-1/2*c*g*x^4*hypergeom([1, 4/n], [(4+n)/n], -2*c*x^n/(b+(-4*a*c+b^2)^(1/2)))/(b^2-4*a*c+b*(-4*a*c+b^2)^(1/2))$

**Rubi [A]** time = 0.35, antiderivative size = 545, normalized size of antiderivative = 1.00, number of steps used = 13, number of rules used = 4, integrand size = 32,  $\frac{\text{number of rules}}{\text{integrand size}} = 0.125$ , Rules used = {1793, 1893, 245, 364}

$$\frac{2cdx {}_2F_1\left(1, \frac{1}{n}; 1 + \frac{1}{n}; -\frac{2cx^n}{b-\sqrt{b^2-4ac}}\right)}{-b\sqrt{b^2-4ac} - 4ac + b^2} - \frac{2cdx {}_2F_1\left(1, \frac{1}{n}; 1 + \frac{1}{n}; -\frac{2cx^n}{b+\sqrt{b^2-4ac}}\right)}{b\sqrt{b^2-4ac} - 4ac + b^2} - \frac{cex^2 {}_2F_1\left(1, \frac{2}{n}; \frac{n+2}{n}; -\frac{2cx^n}{b-\sqrt{b^2-4ac}}\right)}{-b\sqrt{b^2-4ac} - 4ac + b^2} - \frac{cex^2 {}_2F_1\left(1, \frac{2}{n}; \frac{n+2}{n}; -\frac{2cx^n}{b+\sqrt{b^2-4ac}}\right)}{b\sqrt{b^2-4ac} - 4ac + b^2}$$

Antiderivative was successfully verified.

[In] Int[(d + e\*x + f\*x^2 + g\*x^3)/(a + b\*x^n + c\*x^(2\*n)), x]

[Out]  $(-2*c*d*x*Hypergeometric2F1[1, n^(-1), 1 + n^(-1), (-2*c*x^n)/(b - Sqrt[b^2 - 4*a*c])])/(b^2 - 4*a*c - b*Sqrt[b^2 - 4*a*c]) - (2*c*d*x*Hypergeometric2F1[1, n^(-1), 1 + n^(-1), (-2*c*x^n)/(b + Sqrt[b^2 - 4*a*c])])/(b^2 - 4*a*c + b*Sqrt[b^2 - 4*a*c]) - (c*e*x^2*Hypergeometric2F1[1, 2/n, (2 + n)/n, (-2*c*x^n)/(b - Sqrt[b^2 - 4*a*c])])/(b^2 - 4*a*c - b*Sqrt[b^2 - 4*a*c]) - (c*e*x^2*Hypergeometric2F1[1, 2/n, (2 + n)/n, (-2*c*x^n)/(b + Sqrt[b^2 - 4*a*c])])/(b^2 - 4*a*c + b*Sqrt[b^2 - 4*a*c]) - (2*c*f*x^3*Hypergeometric2F1[1, 3/n, (3 + n)/n, (-2*c*x^n)/(b - Sqrt[b^2 - 4*a*c])])/(3*(b^2 - 4*a*c - b*Sqrt[b^2 - 4*a*c])) - (2*c*f*x^3*Hypergeometric2F1[1, 3/n, (3 + n)/n, (-2*c*x^n)/(b + Sqrt[b^2 - 4*a*c])])/(3*(b^2 - 4*a*c + b*Sqrt[b^2 - 4*a*c])) - (c*g*x^4*Hypergeometric2F1[1, 4/n, (4 + n)/n, (-2*c*x^n)/(b - Sqrt[b^2 - 4*a*c])])/(2*(b^2 - 4*a*c - b*Sqrt[b^2 - 4*a*c])) - (c*g*x^4*Hypergeometric2F1[1, 4/n, (4 + n)/n, (-2*c*x^n)/(b + Sqrt[b^2 - 4*a*c])])/(2*(b^2 - 4*a*c + b*Sqrt[b^2 - 4*a*c]))$

#### Rule 245

Int[((a\_) + (b\_.)\*(x\_)^(n\_))^(p\_), x\_Symbol] := Simp[a^p\*x\*Hypergeometric2F1[-p, 1/n, 1/n + 1, -(b\*x^n)/a], x] /; FreeQ[{a, b, n, p}, x] && !IGtQ[p, 0] && !IntegerQ[1/n] && !ILtQ[Simplify[1/n + p], 0] && (IntegerQ[p] || GtQ[a, 0])

#### Rule 364

Int[((c\_.)\*(x\_))^(m\_.)\*((a\_) + (b\_.)\*(x\_)^(n\_))^(p\_), x\_Symbol] := Simp[(a^p\*(c\*x)^(m + 1)\*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1, -(b\*x^n)/a]

)]/(c\*(m + 1)), x] /; FreeQ[{a, b, c, m, n, p}, x] && !IGtQ[p, 0] && (ILT  
Q[p, 0] || GtQ[a, 0])

### Rule 1793

Int[(Pq\_)/((a\_) + (b\_)\*(x\_)^(n\_) + (c\_)\*(x\_)^(n2\_)), x\_Symbol] := With[  
{q = Rt[b^2 - 4\*a\*c, 2]}, Dist[(2\*c)/q, Int[Pq/(b - q + 2\*c\*x^n), x], x] -  
Dist[(2\*c)/q, Int[Pq/(b + q + 2\*c\*x^n), x], x]] /; FreeQ[{a, b, c, n}, x] &&  
& EqQ[n2, 2\*n] && PolyQ[Pq, x] && NeQ[b^2 - 4\*a\*c, 0]

### Rule 1893

Int[(Pq\_)\*((a\_) + (b\_)\*(x\_)^(n\_))^(p\_), x\_Symbol] := Int[ExpandIntegrand[  
Pq\*(a + b\*x^n)^p, x], x] /; FreeQ[{a, b, n, p}, x] && (PolyQ[Pq, x] || Poly  
Q[Pq, x^n])

### Rubi steps

$$\begin{aligned} \int \frac{d + ex + fx^2 + gx^3}{a + bx^n + cx^{2n}} dx &= \frac{(2c) \int \frac{d+ex+fx^2+gx^3}{b-\sqrt{b^2-4ac}+2cx^n} dx}{\sqrt{b^2-4ac}} - \frac{(2c) \int \frac{d+ex+fx^2+gx^3}{b+\sqrt{b^2-4ac}+2cx^n} dx}{\sqrt{b^2-4ac}} \\ &= \frac{(2c) \int \left( \frac{d}{-b+\sqrt{b^2-4ac}-2cx^n} - \frac{ex}{-b+\sqrt{b^2-4ac}-2cx^n} - \frac{fx^2}{-b+\sqrt{b^2-4ac}-2cx^n} - \frac{gx^3}{-b+\sqrt{b^2-4ac}-2cx^n} \right) dx}{\sqrt{b^2-4ac}} \\ &= -\frac{(2cd) \int \frac{1}{-b+\sqrt{b^2-4ac}-2cx^n} dx}{\sqrt{b^2-4ac}} - \frac{(2cd) \int \frac{1}{b+\sqrt{b^2-4ac}+2cx^n} dx}{\sqrt{b^2-4ac}} - \frac{(2ce) \int \frac{x}{-b+\sqrt{b^2-4ac}-2cx^n} dx}{\sqrt{b^2-4ac}} \\ &= -\frac{2cdx {}_2F_1\left(1, \frac{1}{n}; 1 + \frac{1}{n}; -\frac{2cx^n}{b-\sqrt{b^2-4ac}}\right)}{b^2-4ac-b\sqrt{b^2-4ac}} - \frac{2cdx {}_2F_1\left(1, \frac{1}{n}; 1 + \frac{1}{n}; -\frac{2cx^n}{b+\sqrt{b^2-4ac}}\right)}{b^2-4ac+b\sqrt{b^2-4ac}} - \frac{cex^2 {}_2F_1\left(1, \frac{1}{n}; 1 + \frac{1}{n}; -\frac{2cx^n}{b-\sqrt{b^2-4ac}}\right)}{b^2} \end{aligned}$$

**Mathematica [B]** time = 1.58, size = 1093, normalized size = 2.01

$$x \left( 3g \left( (-b^2 - \sqrt{b^2 - 4ac} b + 4ac) \left( 1 - \left( \frac{x^n}{x^n - \frac{\sqrt{b^2 - 4ac} - b}{2c}} \right)^{-4/n} {}_2F_1 \left( -\frac{4}{n}, -\frac{4}{n}; \frac{n-4}{n}; \frac{b - \sqrt{b^2 - 4ac}}{2cx^n + b - \sqrt{b^2 - 4ac}} \right) \right) + (-b^2 + \sqrt{b^2 - 4ac} b + 4ac) \left( 1 - \left( \frac{x^n}{x^n - \frac{\sqrt{b^2 - 4ac} + b}{2c}} \right)^{-4/n} {}_2F_1 \left( -\frac{4}{n}, -\frac{4}{n}; \frac{n-4}{n}; \frac{b + \sqrt{b^2 - 4ac}}{2cx^n + b + \sqrt{b^2 - 4ac}} \right) \right) \right)$$

Antiderivative was successfully verified.

[In] Integrate[(d + e\*x + f\*x^2 + g\*x^3)/(a + b\*x^n + c\*x^(2\*n)),x]

[Out] (x\*(3\*g\*x^3\*((-b^2 + 4\*a\*c - b\*Sqrt[b^2 - 4\*a\*c])\*(1 - Hypergeometric2F1[-4/n, -4/n, (-4 + n)/n, (b - Sqrt[b^2 - 4\*a\*c])/(b - Sqrt[b^2 - 4\*a\*c] + 2\*c\*x^n)]/(x^n/(-1/2\*(-b + Sqrt[b^2 - 4\*a\*c])/c + x^n))^(4/n)) + (-b^2 + 4\*a\*c + b\*Sqrt[b^2 - 4\*a\*c])\*(1 - Hypergeometric2F1[-4/n, -4/n, (-4 + n)/n, (b + Sqrt[b^2 - 4\*a\*c])/(b + Sqrt[b^2 - 4\*a\*c] + 2\*c\*x^n)]/(2^(4/n)\*((c\*x^n)/(b + Sqrt[b^2 - 4\*a\*c] + 2\*c\*x^n))^(4/n)))) + 4\*f\*x^2\*((-b^2 + 4\*a\*c - b\*Sqrt[b^2 - 4\*a\*c])\*(1 - Hypergeometric2F1[-3/n, -3/n, (-3 + n)/n, (b - Sqrt[b^2 - 4\*a\*c])/(b - Sqrt[b^2 - 4\*a\*c] + 2\*c\*x^n)]/(x^n/(-1/2\*(-b + Sqrt[b^2 - 4\*a\*c])/c + x^n))^(3/n)) + (-b^2 + 4\*a\*c + b\*Sqrt[b^2 - 4\*a\*c])\*(1 - Hypergeometric2F1[-3/n, -3/n, (-3 + n)/n, (b + Sqrt[b^2 - 4\*a\*c])/(b + Sqrt[b^2 - 4\*a\*c] + 2\*c\*x^n)]/(8^n^(-1)\*((c\*x^n)/(b + Sqrt[b^2 - 4\*a\*c] + 2\*c\*x^n))^(3/n)))) + 6\*e\*x\*((-b^2 + 4\*a\*c - b\*Sqrt[b^2 - 4\*a\*c])\*(1 - Hypergeometric2F1[-2/n, -2/n, (-2 + n)/n, (b - Sqrt[b^2 - 4\*a\*c])/(b - Sqrt[b^2 - 4\*a\*c] + 2\*c\*x^n)]/(x^n/(-1/2\*(-b + Sqrt[b^2 - 4\*a\*c])/c + x^n))^(2/n)) + (-b^2 + 4\*a\*c + b\*Sqrt[b^2 - 4\*a\*c])\*(1 - Hypergeometric2F1[-2/n, -2/n, (-2 + n)/n, (b + Sqrt[b^2 - 4\*a\*c])/(b + Sqrt[b^2 - 4\*a\*c] + 2\*c\*x^n)]/(2^(2/n)\*((c\*x^n)/(b + Sqrt[b^2 - 4\*a\*c] + 2\*c\*x^n))^(2/n))))

$c*x^n]/(x^n/(-1/2*(-b + \text{Sqrt}[b^2 - 4*a*c])/c + x^n))^{(2/n)} + (-b^2 + 4*a*c + b*\text{Sqrt}[b^2 - 4*a*c])*(1 - \text{Hypergeometric2F1}[-2/n, -2/n, (-2 + n)/n, (b + \text{Sqrt}[b^2 - 4*a*c])/(b + \text{Sqrt}[b^2 - 4*a*c] + 2*c*x^n)]/(4^n^{(-1)*((c*x^n)/(b + \text{Sqrt}[b^2 - 4*a*c] + 2*c*x^n))^{(2/n)}))) + 12*d*((-b^2 + 4*a*c - b*\text{Sqrt}[b^2 - 4*a*c])*(1 - \text{Hypergeometric2F1}[-n^{(-1)}, -n^{(-1)}, (-1 + n)/n, (b - \text{Sqrt}[b^2 - 4*a*c])/(b - \text{Sqrt}[b^2 - 4*a*c] + 2*c*x^n)]/(x^n/(-1/2*(-b + \text{Sqrt}[b^2 - 4*a*c])/c + x^n))^{n^{(-1)}}) - (\text{Sqrt}[b^2 - 4*a*c]*(-b + \text{Sqrt}[b^2 - 4*a*c])*(2^n^{(-1)*((c*x^n)/(b + \text{Sqrt}[b^2 - 4*a*c] + 2*c*x^n))^{n^{(-1)}}) - \text{Hypergeometric2F1}[-n^{(-1)}, -n^{(-1)}, (-1 + n)/n, (b + \text{Sqrt}[b^2 - 4*a*c])/(b + \text{Sqrt}[b^2 - 4*a*c] + 2*c*x^n)])/(2^n^{(-1)*((c*x^n)/(b + \text{Sqrt}[b^2 - 4*a*c] + 2*c*x^n))^{n^{(-1)}})))/(24*a*(-b^2 + 4*a*c))$

**fricas** [F] time = 0.87, size = 0, normalized size = 0.00

$$\text{integral}\left(\frac{gx^3 + fx^2 + ex + d}{cx^{2n} + bx^n + a}, x\right)$$

Verification of antiderivative is not currently implemented for this CAS.

[In] integrate((g\*x^3+f\*x^2+e\*x+d)/(a+b\*x^n+c\*x^(2\*n)),x, algorithm="fricas")

[Out] integral((g\*x^3 + f\*x^2 + e\*x + d)/(c\*x^(2\*n) + b\*x^n + a), x)

**giac** [F] time = 0.00, size = 0, normalized size = 0.00

$$\int \frac{gx^3 + fx^2 + ex + d}{cx^{2n} + bx^n + a} dx$$

Verification of antiderivative is not currently implemented for this CAS.

[In] integrate((g\*x^3+f\*x^2+e\*x+d)/(a+b\*x^n+c\*x^(2\*n)),x, algorithm="giac")

[Out] integrate((g\*x^3 + f\*x^2 + e\*x + d)/(c\*x^(2\*n) + b\*x^n + a), x)

**maple** [F] time = 0.04, size = 0, normalized size = 0.00

$$\int \frac{gx^3 + fx^2 + ex + d}{bx^n + cx^{2n} + a} dx$$

Verification of antiderivative is not currently implemented for this CAS.

[In] int((g\*x^3+f\*x^2+e\*x+d)/(b\*x^n+c\*x^(2\*n)+a),x)

[Out] int((g\*x^3+f\*x^2+e\*x+d)/(b\*x^n+c\*x^(2\*n)+a),x)

**maxima** [F] time = 0.00, size = 0, normalized size = 0.00

$$\int \frac{gx^3 + fx^2 + ex + d}{cx^{2n} + bx^n + a} dx$$

Verification of antiderivative is not currently implemented for this CAS.

[In] integrate((g\*x^3+f\*x^2+e\*x+d)/(a+b\*x^n+c\*x^(2\*n)),x, algorithm="maxima")

[Out] integrate((g\*x^3 + f\*x^2 + e\*x + d)/(c\*x^(2\*n) + b\*x^n + a), x)

**mupad** [F] time = 0.00, size = -1, normalized size = -0.00

$$\int \frac{gx^3 + fx^2 + ex + d}{a + bx^n + cx^{2n}} dx$$

Verification of antiderivative is not currently implemented for this CAS.

[In] int((d + e\*x + f\*x^2 + g\*x^3)/(a + b\*x^n + c\*x^(2\*n)),x)

```
[Out] int((d + e*x + f*x^2 + g*x^3)/(a + b*x^n + c*x^(2*n)), x)
```

```
sympy [F(-1)] time = 0.00, size = 0, normalized size = 0.00
```

Timed out

Verification of antiderivative is not currently implemented for this CAS.

```
[In] integrate((g*x**3+f*x**2+e*x+d)/(a+b*x**n+c*x**(2*n)),x)
```

```
[Out] Timed out
```

$$3.6 \quad \int \frac{1}{(a+bx^n+cx^{2n})^2} dx$$

**Optimal.** Leaf size=283

$$\frac{cx \left( -b(1-n)\sqrt{b^2-4ac} + 4ac(1-2n) - (b^2(1-n)) \right) {}_2F_1 \left( 1, \frac{1}{n}; 1 + \frac{1}{n}; -\frac{2cx^n}{b-\sqrt{b^2-4ac}} \right) - cx \left( b(1-n)\sqrt{b^2-4ac} + 4ac(1-2n) - (b^2(1-n)) \right) {}_2F_1 \left( 1, \frac{1}{n}; 1 + \frac{1}{n}; -\frac{2cx^n}{b+\sqrt{b^2-4ac}} \right)}{an(b^2-4ac) \left( -b\sqrt{b^2-4ac} - 4ac + b^2 \right) - an(b^2-4ac) \left( -b\sqrt{b^2-4ac} + 4ac + b^2 \right)}$$

[Out] x\*(b^2-2\*a\*c+b\*c\*x^n)/a/(-4\*a\*c+b^2)/n/(a+b\*x^n+c\*x^(2\*n))-c\*x\*hypergeom([1, 1/n], [1+1/n], -2\*c\*x^n/(b-(-4\*a\*c+b^2)^(1/2)))\*(4\*a\*c\*(1-2\*n)-b^2\*(1-n)-b\*(1-n)\*(-4\*a\*c+b^2)^(1/2))/a/(-4\*a\*c+b^2)/n/(b^2-4\*a\*c-b\*(-4\*a\*c+b^2)^(1/2))-c\*x\*hypergeom([1, 1/n], [1+1/n], -2\*c\*x^n/(b+(-4\*a\*c+b^2)^(1/2)))\*(4\*a\*c\*(1-2\*n)-b^2\*(1-n)+b\*(1-n)\*(-4\*a\*c+b^2)^(1/2))/a/(-4\*a\*c+b^2)/n/(b^2-4\*a\*c+b\*(-4\*a\*c+b^2)^(1/2))

**Rubi [A]** time = 0.39, antiderivative size = 283, normalized size of antiderivative = 1.00, number of steps used = 4, number of rules used = 3, integrand size = 16,  $\frac{\text{number of rules}}{\text{integrand size}} = 0.188$ , Rules used = {1345, 1422, 245}

$$\frac{cx \left( -b(1-n)\sqrt{b^2-4ac} + 4ac(1-2n) + b^2(-1-n) \right) {}_2F_1 \left( 1, \frac{1}{n}; 1 + \frac{1}{n}; -\frac{2cx^n}{b-\sqrt{b^2-4ac}} \right) - cx \left( b(1-n)\sqrt{b^2-4ac} + 4ac(1-2n) + b^2(-1-n) \right) {}_2F_1 \left( 1, \frac{1}{n}; 1 + \frac{1}{n}; -\frac{2cx^n}{b+\sqrt{b^2-4ac}} \right)}{an(b^2-4ac) \left( -b\sqrt{b^2-4ac} - 4ac + b^2 \right) - an(b^2-4ac) \left( -b\sqrt{b^2-4ac} + 4ac + b^2 \right)}$$

Antiderivative was successfully verified.

[In] Int[(a + b\*x^n + c\*x^(2\*n))^(-2), x]

[Out] (x\*(b^2 - 2\*a\*c + b\*c\*x^n))/(a\*(b^2 - 4\*a\*c)\*n\*(a + b\*x^n + c\*x^(2\*n))) - (c\*(4\*a\*c\*(1 - 2\*n) - b^2\*(1 - n) - b\*Sqrt[b^2 - 4\*a\*c]\*(1 - n))\*x\*Hypergeometric2F1[1, n^(-1), 1 + n^(-1), (-2\*c\*x^n)/(b - Sqrt[b^2 - 4\*a\*c])]/(a\*(b^2 - 4\*a\*c)\*(b^2 - 4\*a\*c - b\*Sqrt[b^2 - 4\*a\*c])\*n) - (c\*(4\*a\*c\*(1 - 2\*n) - b^2\*(1 - n) + b\*Sqrt[b^2 - 4\*a\*c]\*(1 - n))\*x\*Hypergeometric2F1[1, n^(-1), 1 + n^(-1), (-2\*c\*x^n)/(b + Sqrt[b^2 - 4\*a\*c])]/(a\*(b^2 - 4\*a\*c)\*(b^2 - 4\*a\*c + b\*Sqrt[b^2 - 4\*a\*c])\*n)

#### Rule 245

Int[((a\_) + (b\_.)\*(x\_)^(n\_))^(p\_), x\_Symbol] := Simp[a^p\*x\*Hypergeometric2F1[-p, 1/n, 1/n + 1, -((b\*x^n)/a)], x] /; FreeQ[{a, b, n, p}, x] && !IGtQ[p, 0] && !IntegerQ[1/n] && !ILtQ[Simplify[1/n + p], 0] && (IntegerQ[p] || GtQ[a, 0])

#### Rule 1345

Int[((a\_) + (c\_.)\*(x\_)^(n2\_.) + (b\_.)\*(x\_)^(n\_))^(p\_), x\_Symbol] := -Simp[(x\*(b^2 - 2\*a\*c + b\*c\*x^n)\*(a + b\*x^n + c\*x^(2\*n))^(p + 1))/(a\*n\*(p + 1)\*(b^2 - 4\*a\*c)), x] + Dist[1/(a\*n\*(p + 1)\*(b^2 - 4\*a\*c)), Int[(b^2 - 2\*a\*c + n\*(p + 1)\*(b^2 - 4\*a\*c) + b\*c\*(n\*(2\*p + 3) + 1)\*x^n)\*(a + b\*x^n + c\*x^(2\*n))^(p + 1), x], x] /; FreeQ[{a, b, c, n}, x] && EqQ[n2, 2\*n] && NeQ[b^2 - 4\*a\*c, 0] && ILtQ[p, -1]

#### Rule 1422

Int[((d\_) + (e\_.)\*(x\_)^(n\_))/((a\_) + (b\_.)\*(x\_)^(n\_) + (c\_.)\*(x\_)^(n2\_)), x\_Symbol] := With[{q = Rt[b^2 - 4\*a\*c, 2]}, Dist[e/2 + (2\*c\*d - b\*e)/(2\*q), Int[1/(b/2 - q/2 + c\*x^n), x], x] + Dist[e/2 - (2\*c\*d - b\*e)/(2\*q), Int[1/(b/2 + q/2 + c\*x^n), x], x]] /; FreeQ[{a, b, c, d, e, n}, x] && EqQ[n2, 2\*n] && NeQ[b^2 - 4\*a\*c, 0] && NeQ[c\*d^2 - b\*d\*e + a\*e^2, 0] && (PosQ[b^2 - 4\*a\*c, 0])



\*c] || !IGtQ[n/2, 0])

### Rubi steps

$$\begin{aligned} \int \frac{1}{(a + bx^n + cx^{2n})^2} dx &= \frac{x(b^2 - 2ac + bcx^n)}{a(b^2 - 4ac)n(a + bx^n + cx^{2n})} - \frac{\int \frac{b^2 - 2ac - (b^2 - 4ac)n + bc(1-n)x^n}{a + bx^n + cx^{2n}} dx}{a(b^2 - 4ac)n} \\ &= \frac{x(b^2 - 2ac + bcx^n)}{a(b^2 - 4ac)n(a + bx^n + cx^{2n})} + \frac{c(4ac(1 - 2n) - b^2(1 - n) - b\sqrt{b^2 - 4ac}(1 - n))}{2a(b^2 - 4ac)^{3/2}n} \\ &= \frac{x(b^2 - 2ac + bcx^n)}{a(b^2 - 4ac)n(a + bx^n + cx^{2n})} + \frac{c(4ac(1 - 2n) - b^2(1 - n) - b\sqrt{b^2 - 4ac}(1 - n))}{a(b^2 - 4ac)^{3/2}(b - \sqrt{b^2 - 4ac})} \end{aligned}$$

**Mathematica [A]** time = 3.53, size = 456, normalized size = 1.61

$$x \left( \frac{4a^2cn + a(-b^2n + bc(4n-3)x^n + 2c^2(2n-1)x^{2n}) - b^2(n-1)x^n(b+cx^n)}{a+x^n(b+cx^n)} + \frac{ac2^{-1/n}(b(n-1)\sqrt{b^2-4ac} + 4ac(2n-1) - (b^2(n-1))) \left( \frac{cx^n}{\sqrt{b^2-4ac} + b + 2cx^n} \right)^{-1/n}}{\sqrt{b^2-4ac}(\sqrt{b^2-4ac} + b)} \right)$$

Antiderivative was successfully verified.

[In] Integrate[(a + b\*x^n + c\*x^(2\*n))^(-2), x]

[Out] -((x\*((4\*a^2\*c\*n - b^2\*(-1 + n))\*x^n\*(b + c\*x^n) + a\*(-(b^2\*n) + b\*c\*(-3 + 4\*n)\*x^n + 2\*c^2\*(-1 + 2\*n)\*x^(2\*n)))/(a + x^n\*(b + c\*x^n)) + (a\*c\*(4\*a\*c\*sqrt[b^2 - 4\*a\*c]\*(1 - 2\*n) + b^3\*(-1 + n) - 4\*a\*b\*c\*(-1 + n) + b^2\*sqrt[b^2 - 4\*a\*c]\*(-1 + n))\*Hypergeometric2F1[-n^(-1), -n^(-1), (-1 + n)/n, (b - sqrt[b^2 - 4\*a\*c])/(b - sqrt[b^2 - 4\*a\*c] + 2\*c\*x^n)]/(2^n^(-1)\*sqrt[b^2 - 4\*a\*c]\*(-b^2 + 4\*a\*c + b\*sqrt[b^2 - 4\*a\*c])\*((c\*x^n)/(b - sqrt[b^2 - 4\*a\*c] + 2\*c\*x^n))^n^(-1)) + (a\*c\*(-(b^2\*(-1 + n)) + b\*sqrt[b^2 - 4\*a\*c]\*(-1 + n) + 4\*a\*c\*(-1 + 2\*n))\*Hypergeometric2F1[-n^(-1), -n^(-1), (-1 + n)/n, (b + sqrt[b^2 - 4\*a\*c])/(b + sqrt[b^2 - 4\*a\*c] + 2\*c\*x^n)]/(2^n^(-1)\*sqrt[b^2 - 4\*a\*c]\*(b + sqrt[b^2 - 4\*a\*c])\*((c\*x^n)/(b + sqrt[b^2 - 4\*a\*c] + 2\*c\*x^n))^n^(-1))))/(a^2\*(b^2 - 4\*a\*c)\*n))

**fricas [F]** time = 0.85, size = 0, normalized size = 0.00

$$\text{integral} \left( \frac{1}{c^2x^{4n} + b^2x^{2n} + 2abx^n + a^2 + 2(bc x^n + ac)x^{2n}}, x \right)$$

Verification of antiderivative is not currently implemented for this CAS.

[In] integrate(1/(a+b\*x^n+c\*x^(2\*n))^2,x, algorithm="fricas")

[Out] integral(1/(c^2\*x^(4\*n) + b^2\*x^(2\*n) + 2\*a\*b\*x^n + a^2 + 2\*(b\*c\*x^n + a\*c)\*x^(2\*n)), x)

**giac [F]** time = 0.00, size = 0, normalized size = 0.00

$$\int \frac{1}{(cx^{2n} + bx^n + a)^2} dx$$

Verification of antiderivative is not currently implemented for this CAS.

[In] integrate(1/(a+b\*x^n+c\*x^(2\*n))^2,x, algorithm="giac")

[Out] integrate((c\*x^(2\*n) + b\*x^n + a)^(-2), x)

**maple** [F] time = 0.07, size = 0, normalized size = 0.00

$$\int \frac{1}{(bx^n + cx^{2n} + a)^2} dx$$

Verification of antiderivative is not currently implemented for this CAS.

[In] int(1/(b\*x^n+c\*x^(2\*n)+a)^2,x)

[Out] int(1/(b\*x^n+c\*x^(2\*n)+a)^2,x)

**maxima** [F] time = 0.00, size = 0, normalized size = 0.00

$$\frac{bcx^n + (b^2 - 2ac)x}{a^2b^2n - 4a^3cn + (ab^2cn - 4a^2c^2n)x^{2n} + (ab^3n - 4a^2bcn)x^n} \int - \frac{bc(n-1)x^n - 2ac(2n-1) + b^2(n-1)}{a^2b^2n - 4a^3cn + (ab^2cn - 4a^2c^2n)x^{2n} + (ab^3n - 4a^2bcn)x^n} dx$$

Verification of antiderivative is not currently implemented for this CAS.

[In] integrate(1/(a+b\*x^n+c\*x^(2\*n))^2,x, algorithm="maxima")

[Out] (b\*c\*x\*x^n + (b^2 - 2\*a\*c)\*x)/(a^2\*b^2\*n - 4\*a^3\*c\*n + (a\*b^2\*c\*n - 4\*a^2\*c^2\*n)\*x^(2\*n) + (a\*b^3\*n - 4\*a^2\*b\*c\*n)\*x^n) - integrate(-(b\*c\*(n-1)\*x^n - 2\*a\*c\*(2\*n-1) + b^2\*(n-1))/(a^2\*b^2\*n - 4\*a^3\*c\*n + (a\*b^2\*c\*n - 4\*a^2\*c^2\*n)\*x^(2\*n) + (a\*b^3\*n - 4\*a^2\*b\*c\*n)\*x^n), x)

**mupad** [F] time = 0.00, size = -1, normalized size = -0.00

$$\int \frac{1}{(a + bx^n + cx^{2n})^2} dx$$

Verification of antiderivative is not currently implemented for this CAS.

[In] int(1/(a + b\*x^n + c\*x^(2\*n))^2,x)

[Out] int(1/(a + b\*x^n + c\*x^(2\*n))^2, x)

**sympy** [F(-1)] time = 0.00, size = 0, normalized size = 0.00

Timed out

Verification of antiderivative is not currently implemented for this CAS.

[In] integrate(1/(a+b\*x\*\*n+c\*x\*\*(2\*n))\*\*2,x)

[Out] Timed out

$$3.7 \quad \int \frac{d+ex}{(a+bx^n+cx^{2n})^2} dx$$

**Optimal.** Leaf size=738

$$\frac{2bc^2e(2-n)x^{n+2} {}_2F_1\left(1, \frac{n+2}{n}; 2\left(1+\frac{1}{n}\right); -\frac{2cx^n}{b-\sqrt{b^2-4ac}}\right)}{an(n+2)(b^2-4ac)^{3/2}(b-\sqrt{b^2-4ac})} + \frac{2bc^2e(2-n)x^{n+2} {}_2F_1\left(1, \frac{n+2}{n}; 2\left(1+\frac{1}{n}\right); -\frac{2cx^n}{b+\sqrt{b^2-4ac}}\right)}{an(n+2)(b^2-4ac)^{3/2}(\sqrt{b^2-4ac}+b)}$$

[Out] d\*x\*(b^2-2\*a\*c+b\*c\*x^n)/a/(-4\*a\*c+b^2)/n/(a+b\*x^n+c\*x^(2\*n))+e\*x^2\*(b^2-2\*a\*c+b\*c\*x^n)/a/(-4\*a\*c+b^2)/n/(a+b\*x^n+c\*x^(2\*n))-2\*b\*c^2\*e\*(2-n)\*x^(2+n)\*hypergeom([1, (2+n)/n], [2+2/n], -2\*c\*x^n/(b-(-4\*a\*c+b^2)^(1/2)))/a/(-4\*a\*c+b^2)^(3/2)/n/(2+n)/(b-(-4\*a\*c+b^2)^(1/2))+2\*b\*c^2\*e\*(2-n)\*x^(2+n)\*hypergeom([1, (2+n)/n], [2+2/n], -2\*c\*x^n/(b+(-4\*a\*c+b^2)^(1/2)))/a/(-4\*a\*c+b^2)^(3/2)/n/(2+n)/(b+(-4\*a\*c+b^2)^(1/2))-c\*e\*(4\*a\*c\*(1-n)-b^2\*(2-n))\*x^2\*hypergeom([1, 2/n], [(2+n)/n], -2\*c\*x^n/(b-(-4\*a\*c+b^2)^(1/2)))/a/(-4\*a\*c+b^2)/n/(b^2-4\*a\*c-b\*(-4\*a\*c+b^2)^(1/2))-c\*e\*(4\*a\*c\*(1-n)-b^2\*(2-n))\*x^2\*hypergeom([1, 2/n], [(2+n)/n], -2\*c\*x^n/(b+(-4\*a\*c+b^2)^(1/2)))/a/(-4\*a\*c+b^2)/n/(b^2-4\*a\*c+b\*(-4\*a\*c+b^2)^(1/2))-c\*d\*x\*hypergeom([1, 1/n], [1+1/n], -2\*c\*x^n/(b-(-4\*a\*c+b^2)^(1/2)))\*(4\*a\*c\*(1-2\*n)-b^2\*(1-n)-b\*(1-n)\*(-4\*a\*c+b^2)^(1/2))/a/(-4\*a\*c+b^2)/n/(b^2-4\*a\*c-b\*(-4\*a\*c+b^2)^(1/2))-c\*d\*x\*hypergeom([1, 1/n], [1+1/n], -2\*c\*x^n/(b+(-4\*a\*c+b^2)^(1/2)))\*(4\*a\*c\*(1-2\*n)-b^2\*(1-n)+b\*(1-n)\*(-4\*a\*c+b^2)^(1/2))/a/(-4\*a\*c+b^2)/n/(b^2-4\*a\*c+b\*(-4\*a\*c+b^2)^(1/2))

**Rubi [A]** time = 1.34, antiderivative size = 738, normalized size of antiderivative = 1.00, number of steps used = 15, number of rules used = 8, integrand size = 22,  $\frac{\text{number of rules}}{\text{integrand size}} = 0.364$ , Rules used = {1796, 1345, 1422, 245, 1384, 1560, 1383, 364}

$$\frac{2bc^2e(2-n)x^{n+2} {}_2F_1\left(1, \frac{n+2}{n}; 2\left(1+\frac{1}{n}\right); -\frac{2cx^n}{b-\sqrt{b^2-4ac}}\right)}{an(n+2)(b^2-4ac)^{3/2}(b-\sqrt{b^2-4ac})} + \frac{2bc^2e(2-n)x^{n+2} {}_2F_1\left(1, \frac{n+2}{n}; 2\left(1+\frac{1}{n}\right); -\frac{2cx^n}{b+\sqrt{b^2-4ac}}\right)}{an(n+2)(b^2-4ac)^{3/2}(\sqrt{b^2-4ac}+b)}$$

Antiderivative was successfully verified.

[In] Int[(d + e\*x)/(a + b\*x^n + c\*x^(2\*n))^2, x]

[Out] (d\*x\*(b^2 - 2\*a\*c + b\*c\*x^n))/(a\*(b^2 - 4\*a\*c)\*n\*(a + b\*x^n + c\*x^(2\*n))) + (e\*x^2\*(b^2 - 2\*a\*c + b\*c\*x^n))/(a\*(b^2 - 4\*a\*c)\*n\*(a + b\*x^n + c\*x^(2\*n))) - (c\*d\*(4\*a\*c\*(1 - 2\*n) - b^2\*(1 - n) - b\*Sqrt[b^2 - 4\*a\*c]\*(1 - n))\*x\*Hypergeometric2F1[1, n^(-1), 1 + n^(-1), (-2\*c\*x^n)/(b - Sqrt[b^2 - 4\*a\*c])]/(a\*(b^2 - 4\*a\*c)\*(b^2 - 4\*a\*c - b\*Sqrt[b^2 - 4\*a\*c])\*n) - (c\*d\*(4\*a\*c\*(1 - 2\*n) - b^2\*(1 - n) + b\*Sqrt[b^2 - 4\*a\*c]\*(1 - n))\*x\*Hypergeometric2F1[1, n^(-1), 1 + n^(-1), (-2\*c\*x^n)/(b + Sqrt[b^2 - 4\*a\*c])]/(a\*(b^2 - 4\*a\*c)\*(b^2 - 4\*a\*c + b\*Sqrt[b^2 - 4\*a\*c])\*n) - (c\*e\*(4\*a\*c\*(1 - n) - b^2\*(2 - n))\*x^2\*Hypergeometric2F1[1, 2/n, (2 + n)/n, (-2\*c\*x^n)/(b - Sqrt[b^2 - 4\*a\*c])]/(a\*(b^2 - 4\*a\*c)\*(b^2 - 4\*a\*c - b\*Sqrt[b^2 - 4\*a\*c])\*n) - (c\*e\*(4\*a\*c\*(1 - n) - b^2\*(2 - n))\*x^2\*Hypergeometric2F1[1, 2/n, (2 + n)/n, (-2\*c\*x^n)/(b + Sqrt[b^2 - 4\*a\*c])]/(a\*(b^2 - 4\*a\*c)\*(b^2 - 4\*a\*c + b\*Sqrt[b^2 - 4\*a\*c])\*n) - (2\*b\*c^2\*e\*(2 - n)\*x^(2 + n)\*Hypergeometric2F1[1, (2 + n)/n, 2\*(1 + n^(-1)), (-2\*c\*x^n)/(b - Sqrt[b^2 - 4\*a\*c])]/(a\*(b^2 - 4\*a\*c)^(3/2)\*(b - Sqrt[b^2 - 4\*a\*c])\*n\*(2 + n)) + (2\*b\*c^2\*e\*(2 - n)\*x^(2 + n)\*Hypergeometric2F1[1, (2 + n)/n, 2\*(1 + n^(-1)), (-2\*c\*x^n)/(b + Sqrt[b^2 - 4\*a\*c])]/(a\*(b^2 - 4\*a\*c)^(3/2)\*(b + Sqrt[b^2 - 4\*a\*c])\*n\*(2 + n))

**Rule 245**

Int[((a\_) + (b\_.)\*(x\_)^(n\_))^(p\_), x\_Symbol] :> Simp[a^p\*x\*Hypergeometric2F1[-p, 1/n, 1/n + 1, -((b\*x^n)/a)], x] /; FreeQ[{a, b, n, p}, x] && !IGtQ[p, 0] && !IntegerQ[1/n] && !ILtQ[Simplify[1/n + p], 0] && (IntegerQ[p] ||

GtQ[a, 0])

### Rule 364

Int[((c\_.)\*(x\_)^(m\_.)\*((a\_) + (b\_.)\*(x\_)^(n\_))^(p\_), x\_Symbol] := Simp[(a^p\*(c\*x)^(m + 1)\*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1, -((b\*x^n)/a)])/((c\*(m + 1)), x] /; FreeQ[{a, b, c, m, n, p}, x] && !IGtQ[p, 0] && (ILtQ[p, 0] || GtQ[a, 0])

### Rule 1345

Int[((a\_) + (c\_.)\*(x\_)^(n2\_.) + (b\_.)\*(x\_)^(n\_))^(p\_), x\_Symbol] := -Simp[(x\*(b^2 - 2\*a\*c + b\*c\*x^n)\*(a + b\*x^n + c\*x^(2\*n))^(p + 1))/(a\*n\*(p + 1)\*(b^2 - 4\*a\*c)), x] + Dist[1/(a\*n\*(p + 1)\*(b^2 - 4\*a\*c)), Int[(b^2 - 2\*a\*c + n\*(p + 1)\*(b^2 - 4\*a\*c) + b\*c\*(n\*(2\*p + 3) + 1)\*x^n)\*(a + b\*x^n + c\*x^(2\*n))^(p + 1), x], x] /; FreeQ[{a, b, c, n}, x] && EqQ[n2, 2\*n] && NeQ[b^2 - 4\*a\*c, 0] && ILtQ[p, -1]

### Rule 1383

Int[((d\_.)\*(x\_)^(m\_.)/((a\_) + (c\_.)\*(x\_)^(n2\_.) + (b\_.)\*(x\_)^(n\_)), x\_Symbol] := With[{q = Rt[b^2 - 4\*a\*c, 2]}, Dist[(2\*c)/q, Int[(d\*x)^m/(b - q + 2\*c\*x^n), x], x] - Dist[(2\*c)/q, Int[(d\*x)^m/(b + q + 2\*c\*x^n), x], x]] /; FreeQ[{a, b, c, d, m, n}, x] && EqQ[n2, 2\*n] && NeQ[b^2 - 4\*a\*c, 0]

### Rule 1384

Int[((d\_.)\*(x\_)^(m\_.)\*((a\_) + (c\_.)\*(x\_)^(n2\_.) + (b\_.)\*(x\_)^(n\_))^(p\_), x\_Symbol] := -Simp[((d\*x)^(m + 1)\*(b^2 - 2\*a\*c + b\*c\*x^n)\*(a + b\*x^n + c\*x^(2\*n))^(p + 1))/(a\*d\*n\*(p + 1)\*(b^2 - 4\*a\*c)), x] + Dist[1/(a\*n\*(p + 1)\*(b^2 - 4\*a\*c)), Int[(d\*x)^m\*(a + b\*x^n + c\*x^(2\*n))^(p + 1)\*Simp[b^2\*(n\*(p + 1) + m + 1) - 2\*a\*c\*(m + 2\*n\*(p + 1) + 1) + b\*c\*(2\*n\*p + 3\*n + m + 1)\*x^n, x], x], x] /; FreeQ[{a, b, c, d, m, n}, x] && EqQ[n2, 2\*n] && NeQ[b^2 - 4\*a\*c, 0] && ILtQ[p + 1, 0]

### Rule 1422

Int[((d\_) + (e\_.)\*(x\_)^(n\_))/((a\_) + (b\_.)\*(x\_)^(n\_) + (c\_.)\*(x\_)^(n2\_)), x\_Symbol] := With[{q = Rt[b^2 - 4\*a\*c, 2]}, Dist[e/2 + (2\*c\*d - b\*e)/(2\*q), Int[1/(b/2 - q/2 + c\*x^n), x], x] + Dist[e/2 - (2\*c\*d - b\*e)/(2\*q), Int[1/(b/2 + q/2 + c\*x^n), x], x]] /; FreeQ[{a, b, c, d, e, n}, x] && EqQ[n2, 2\*n] && NeQ[b^2 - 4\*a\*c, 0] && NeQ[c\*d^2 - b\*d\*e + a\*e^2, 0] && (PosQ[b^2 - 4\*a\*c] || !IGtQ[n/2, 0])

### Rule 1560

Int[((f\_.)\*(x\_)^(m\_.)\*((a\_) + (c\_.)\*(x\_)^(n2\_.) + (b\_.)\*(x\_)^(n\_))^(p\_.)\*((d\_) + (e\_.)\*(x\_)^(n\_))^(q\_.), x\_Symbol] := Int[ExpandIntegrand[(f\*x)^m\*(d + e\*x^n)^q\*(a + b\*x^n + c\*x^(2\*n))^p, x], x] /; FreeQ[{a, b, c, d, e, f, m, n, p, q}, x] && EqQ[n2, 2\*n] && NeQ[b^2 - 4\*a\*c, 0] && (IGtQ[p, 0] || IGtQ[q, 0])

### Rule 1796

Int[(Pq)\*((a\_) + (b\_.)\*(x\_)^(n\_.) + (c\_.)\*(x\_)^(n2\_.))^(p\_), x\_Symbol] := Int[ExpandIntegrand[Pq\*(a + b\*x^n + c\*x^(2\*n))^p, x], x] /; FreeQ[{a, b, c, n}, x] && EqQ[n2, 2\*n] && PolyQ[Pq, x] && ILtQ[p, -1]

### Rubi steps

$$\begin{aligned}
\int \frac{d+ex}{(a+bx^n+cx^{2n})^2} dx &= \int \left( \frac{d}{(a+bx^n+cx^{2n})^2} + \frac{ex}{(a+bx^n+cx^{2n})^2} \right) dx \\
&= d \int \frac{1}{(a+bx^n+cx^{2n})^2} dx + e \int \frac{x}{(a+bx^n+cx^{2n})^2} dx \\
&= \frac{dx(b^2-2ac+bcx^n)}{a(b^2-4ac)n(a+bx^n+cx^{2n})} + \frac{ex^2(b^2-2ac+bcx^n)}{a(b^2-4ac)n(a+bx^n+cx^{2n})} - \frac{d \int \frac{b^2-2ac-(b^2-4ac)}{a+bx^n}}{a(b^2-4ac)n(a+bx^n+cx^{2n})} \\
&= \frac{dx(b^2-2ac+bcx^n)}{a(b^2-4ac)n(a+bx^n+cx^{2n})} + \frac{ex^2(b^2-2ac+bcx^n)}{a(b^2-4ac)n(a+bx^n+cx^{2n})} - \frac{e \int \left( \frac{b^2(1-\frac{4ac(-1)}{b^2(-2)}}{a+bx^n})}{a+bx^n} \right)}{a(b^2-4ac)n(a+bx^n+cx^{2n})} \\
&= \frac{dx(b^2-2ac+bcx^n)}{a(b^2-4ac)n(a+bx^n+cx^{2n})} + \frac{ex^2(b^2-2ac+bcx^n)}{a(b^2-4ac)n(a+bx^n+cx^{2n})} + \frac{cd(4ac(1-2n))}{a(b^2-4ac)n(a+bx^n+cx^{2n})} \\
&= \frac{dx(b^2-2ac+bcx^n)}{a(b^2-4ac)n(a+bx^n+cx^{2n})} + \frac{ex^2(b^2-2ac+bcx^n)}{a(b^2-4ac)n(a+bx^n+cx^{2n})} + \frac{cd(4ac(1-2n))}{a(b^2-4ac)n(a+bx^n+cx^{2n})} \\
&= \frac{dx(b^2-2ac+bcx^n)}{a(b^2-4ac)n(a+bx^n+cx^{2n})} + \frac{ex^2(b^2-2ac+bcx^n)}{a(b^2-4ac)n(a+bx^n+cx^{2n})} + \frac{cd(4ac(1-2n))}{a(b^2-4ac)n(a+bx^n+cx^{2n})}
\end{aligned}$$

**Mathematica [B]** time = 6.39, size = 4162, normalized size = 5.64

Result too large to show

Antiderivative was successfully verified.

[In] Integrate[(d + e\*x)/(a + b\*x^n + c\*x^(2\*n))^2, x]

[Out] (x\*(d + e\*x)\*(-b^2 + 2\*a\*c - b\*c\*x^n))/(a\*(-b^2 + 4\*a\*c)\*n\*(a + b\*x^n + c\*x^(2\*n))) - (b\*c\*e\*x^(2 + n)\*(x^n)^(2/n - (2 + n)/n)\*(-Hypergeometric2F1[-2/n, -2/n, (-2 + n)/n, -1/2\*(-b - Sqrt[b^2 - 4\*a\*c])]/(c\*(-1/2\*(-b - Sqrt[b^2 - 4\*a\*c])/c + x^n)))/(Sqrt[b^2 - 4\*a\*c]\*(x^n/(-1/2\*(-b - Sqrt[b^2 - 4\*a\*c])/c + x^n))^(2/n))) + Hypergeometric2F1[-2/n, -2/n, (-2 + n)/n, -1/2\*(-b + Sqrt[b^2 - 4\*a\*c])]/(c\*(-1/2\*(-b + Sqrt[b^2 - 4\*a\*c])/c + x^n)))/(Sqrt[b^2 - 4\*a\*c]\*(x^n/(-1/2\*(-b + Sqrt[b^2 - 4\*a\*c])/c + x^n))^(2/n))) / (2\*a\*(-b^2 + 4\*a\*c)) + (b\*c\*e\*x^(2 + n)\*(x^n)^(2/n - (2 + n)/n)\*(-Hypergeometric2F1[-2/n, -2/n, (-2 + n)/n, -1/2\*(-b - Sqrt[b^2 - 4\*a\*c])]/(c\*(-1/2\*(-b - Sqrt[b^2 - 4\*a\*c])/c + x^n)))/(Sqrt[b^2 - 4\*a\*c]\*(x^n/(-1/2\*(-b - Sqrt[b^2 - 4\*a\*c])/c + x^n))^(2/n))) / (2\*a\*(-b^2 + 4\*a\*c)) + (b^2\*e\*x^2\*((1 - Hypergeometric2F1[-2/n, -2/n, (-2 + n)/n, -1/2\*(-b - Sqrt[b^2 - 4\*a\*c])]/(c\*(-1/2\*(-b - Sqrt[b^2 - 4\*a\*c])/c + x^n)))/(x^n/(-1/2\*(-b - Sqrt[b^2 - 4\*a\*c])/c + x^n))^(2/n)))/((b\*(-b - Sqrt[b^2 - 4\*a\*c])/(2\*c) + (-b - Sqrt[b^2 - 4\*a\*c])^2/(2\*c)) + (1 - Hypergeometric2F1[-2/n, -2/n, (-2 + n)/n, -1/2\*(-b + Sqrt[b^2 - 4\*a\*c])]/(c\*(-1/2\*(-b + Sqrt[b^2 - 4\*a\*c])/c + x^n)))/(x^n/(-1/2\*(-b + Sqrt[b^2 - 4\*a\*c])/c + x^n))^(2/n)))/((b\*(-b + Sqrt[b^2 - 4\*a\*c])/(2\*c) + (-b + Sqrt[b^2 - 4\*a\*c])^2/(2\*c)))/((2\*a\*(-b^2 + 4\*a\*c)) - (2\*c\*e\*x^2\*((1 - Hypergeometric2F1[-2/n, -2/n, (-2 + n)/n, -1/2\*(-b - Sqrt[b^2 - 4\*a\*c])]/(c\*(-1/2\*(-b - Sqrt[b^2 - 4\*a\*c])/c + x^n))

$$\begin{aligned}
& )/(x^n/(-1/2*(-b - \text{Sqrt}[b^2 - 4*a*c])/c + x^n))^{(2/n)}/((b*(-b - \text{Sqrt}[b^2 \\
& - 4*a*c]))/(2*c) + (-b - \text{Sqrt}[b^2 - 4*a*c])^2/(2*c)) + (1 - \text{Hypergeometric2} \\
& \text{F1}[-2/n, -2/n, (-2 + n)/n, -1/2*(-b + \text{Sqrt}[b^2 - 4*a*c])/(c*(-1/2*(-b + \text{Sqr} \\
& \text{t}[b^2 - 4*a*c])/c + x^n))]/(x^n/(-1/2*(-b + \text{Sqrt}[b^2 - 4*a*c])/c + x^n))^{(2 \\
& /n)}/((b*(-b + \text{Sqrt}[b^2 - 4*a*c]))/(2*c) + (-b + \text{Sqrt}[b^2 - 4*a*c])^2/(2*c) \\
& ))/(-b^2 + 4*a*c) - (b^2*e*x^2*((1 - \text{Hypergeometric2F1}[-2/n, -2/n, (-2 + n \\
& )/n, -1/2*(-b - \text{Sqrt}[b^2 - 4*a*c])/(c*(-1/2*(-b - \text{Sqrt}[b^2 - 4*a*c])/c + x^ \\
& n))]/(x^n/(-1/2*(-b - \text{Sqrt}[b^2 - 4*a*c])/c + x^n))^{(2/n)}/((b*(-b - \text{Sqrt}[b^ \\
& 2 - 4*a*c]))/(2*c) + (-b - \text{Sqrt}[b^2 - 4*a*c])^2/(2*c)) + (1 - \text{Hypergeometri} \\
& \text{c2F1}[-2/n, -2/n, (-2 + n)/n, -1/2*(-b + \text{Sqrt}[b^2 - 4*a*c])/(c*(-1/2*(-b + S \\
& \text{qrt}[b^2 - 4*a*c])/c + x^n))]/(x^n/(-1/2*(-b + \text{Sqrt}[b^2 - 4*a*c])/c + x^n))^{(2/n)}/((b*(-b + \text{Sqr} \\
& \text{t}[b^2 - 4*a*c]))/(2*c) + (-b + \text{Sqrt}[b^2 - 4*a*c])^2/(2*c \\
& c))))/(a*(-b^2 + 4*a*c)*n) + (2*c*e*x^2*((1 - \text{Hypergeometric2F1}[-2/n, -2/n, \\
& (-2 + n)/n, -1/2*(-b - \text{Sqrt}[b^2 - 4*a*c])/(c*(-1/2*(-b - \text{Sqrt}[b^2 - 4*a*c] \\
& )/c + x^n))]/(x^n/(-1/2*(-b - \text{Sqrt}[b^2 - 4*a*c])/c + x^n))^{(2/n)}/((b*(-b - \\
& \text{Sqrt}[b^2 - 4*a*c]))/(2*c) + (-b - \text{Sqrt}[b^2 - 4*a*c])^2/(2*c)) + (1 - Hyper \\
& \text{geometric2F1}[-2/n, -2/n, (-2 + n)/n, -1/2*(-b + \text{Sqrt}[b^2 - 4*a*c])/(c*(-1/2 \\
& *(-b + \text{Sqrt}[b^2 - 4*a*c])/c + x^n))]/(x^n/(-1/2*(-b + \text{Sqrt}[b^2 - 4*a*c])/c \\
& + x^n))^{(2/n)}/((b*(-b + \text{Sqrt}[b^2 - 4*a*c]))/(2*c) + (-b + \text{Sqrt}[b^2 - 4*a*c] \\
& ])^2/(2*c))))/((-b^2 + 4*a*c)*n) - (b*c*d*x^(1 + n)*(x^n)^(n^(-1) - (1 + n) \\
& /n)*(-(\text{Hypergeometric2F1}[-n^(-1), -n^(-1), (-1 + n)/n, -1/2*(-b - \text{Sqrt}[b^2 \\
& - 4*a*c])/(c*(-1/2*(-b - \text{Sqrt}[b^2 - 4*a*c])/c + x^n))]/(\text{Sqrt}[b^2 - 4*a*c]*( \\
& x^n/(-1/2*(-b - \text{Sqrt}[b^2 - 4*a*c])/c + x^n))^{n^(-1)})) + \text{Hypergeometric2F1}[- \\
& n^(-1), -n^(-1), (-1 + n)/n, -1/2*(-b + \text{Sqrt}[b^2 - 4*a*c])/(c*(-1/2*(-b + S \\
& \text{qrt}[b^2 - 4*a*c])/c + x^n))]/(\text{Sqrt}[b^2 - 4*a*c]*(x^n/(-1/2*(-b + \text{Sqrt}[b^2 - \\
& 4*a*c])/c + x^n))^{n^(-1)})))/(a*(-b^2 + 4*a*c)) + (b*c*d*x^(1 + n)*(x^n)^(n \\
& ^(-1) - (1 + n)/n)*(-(\text{Hypergeometric2F1}[-n^(-1), -n^(-1), (-1 + n)/n, -1/2* \\
& (-b - \text{Sqrt}[b^2 - 4*a*c])/(c*(-1/2*(-b - \text{Sqrt}[b^2 - 4*a*c])/c + x^n))]/(\text{Sqrt} \\
& [b^2 - 4*a*c]*(x^n/(-1/2*(-b - \text{Sqrt}[b^2 - 4*a*c])/c + x^n))^{n^(-1)})) + Hype \\
& \text{rgeometric2F1}[-n^(-1), -n^(-1), (-1 + n)/n, -1/2*(-b + \text{Sqrt}[b^2 - 4*a*c])/( \\
& c*(-1/2*(-b + \text{Sqrt}[b^2 - 4*a*c])/c + x^n))]/(\text{Sqrt}[b^2 - 4*a*c]*(x^n/(-1/2*( \\
& -b + \text{Sqrt}[b^2 - 4*a*c])/c + x^n))^{n^(-1)})))/(a*(-b^2 + 4*a*c)*n) + (b^2*d*x \\
& *((1 - \text{Hypergeometric2F1}[-n^(-1), -n^(-1), (-1 + n)/n, -1/2*(-b - \text{Sqrt}[b^2 \\
& - 4*a*c])/(c*(-1/2*(-b - \text{Sqrt}[b^2 - 4*a*c])/c + x^n))]/(x^n/(-1/2*(-b - Sqr \\
& \text{t}[b^2 - 4*a*c])/c + x^n))^{n^(-1)})))/((b*(-b - \text{Sqrt}[b^2 - 4*a*c]))/(2*c) + (-b \\
& - \text{Sqrt}[b^2 - 4*a*c])^2/(2*c)) + (1 - \text{Hypergeometric2F1}[-n^(-1), -n^(-1), ( \\
& -1 + n)/n, -1/2*(-b + \text{Sqrt}[b^2 - 4*a*c])/(c*(-1/2*(-b + \text{Sqrt}[b^2 - 4*a*c])/ \\
& c + x^n))]/(x^n/(-1/2*(-b + \text{Sqrt}[b^2 - 4*a*c])/c + x^n))^{n^(-1)})))/((b*(-b + \\
& \text{Sqrt}[b^2 - 4*a*c]))/(2*c) + (-b + \text{Sqrt}[b^2 - 4*a*c])^2/(2*c))))/(a*(-b^2 + \\
& 4*a*c)) - (4*c*d*x*((1 - \text{Hypergeometric2F1}[-n^(-1), -n^(-1), (-1 + n)/n, -1 \\
& /2*(-b - \text{Sqrt}[b^2 - 4*a*c])/(c*(-1/2*(-b - \text{Sqrt}[b^2 - 4*a*c])/c + x^n))]/(x \\
& ^n/(-1/2*(-b - \text{Sqrt}[b^2 - 4*a*c])/c + x^n))^{n^(-1)})))/((b*(-b - \text{Sqrt}[b^2 - 4* \\
& a*c]))/(2*c) + (-b - \text{Sqrt}[b^2 - 4*a*c])^2/(2*c)) + (1 - \text{Hypergeometric2F1}[- \\
& n^(-1), -n^(-1), (-1 + n)/n, -1/2*(-b + \text{Sqrt}[b^2 - 4*a*c])/(c*(-1/2*(-b + S \\
& \text{qrt}[b^2 - 4*a*c])/c + x^n))]/(x^n/(-1/2*(-b + \text{Sqrt}[b^2 - 4*a*c])/c + x^n))^{ \\
& n^(-1)})))/((b*(-b + \text{Sqrt}[b^2 - 4*a*c]))/(2*c) + (-b + \text{Sqrt}[b^2 - 4*a*c])^2/(2 \\
& *c))))/(-b^2 + 4*a*c) - (b^2*d*x*((1 - \text{Hypergeometric2F1}[-n^(-1), -n^(-1), \\
& (-1 + n)/n, -1/2*(-b - \text{Sqrt}[b^2 - 4*a*c])/(c*(-1/2*(-b - \text{Sqrt}[b^2 - 4*a*c] \\
& )/c + x^n))]/(x^n/(-1/2*(-b - \text{Sqrt}[b^2 - 4*a*c])/c + x^n))^{n^(-1)})))/((b*(-b - \\
& \text{Sqrt}[b^2 - 4*a*c]))/(2*c) + (-b - \text{Sqrt}[b^2 - 4*a*c])^2/(2*c)) + (1 - Hyper \\
& \text{geometric2F1}[-n^(-1), -n^(-1), (-1 + n)/n, -1/2*(-b + \text{Sqrt}[b^2 - 4*a*c])/(c \\
& *(-1/2*(-b + \text{Sqrt}[b^2 - 4*a*c])/c + x^n))]/(x^n/(-1/2*(-b + \text{Sqrt}[b^2 - 4*a* \\
& c])/c + x^n))^{n^(-1)})))/((b*(-b + \text{Sqrt}[b^2 - 4*a*c]))/(2*c) + (-b + \text{Sqrt}[b^2 \\
& - 4*a*c])^2/(2*c))))/(a*(-b^2 + 4*a*c)*n) + (2*c*d*x*((1 - \text{Hypergeometric2F} \\
& \text{1}[-n^(-1), -n^(-1), (-1 + n)/n, -1/2*(-b - \text{Sqrt}[b^2 - 4*a*c])/(c*(-1/2*(-b \\
& - \text{Sqrt}[b^2 - 4*a*c])/c + x^n))]/(x^n/(-1/2*(-b - \text{Sqrt}[b^2 - 4*a*c])/c + x^n \\
& ))^{n^(-1)})))/((b*(-b - \text{Sqrt}[b^2 - 4*a*c]))/(2*c) + (-b - \text{Sqrt}[b^2 - 4*a*c])^2 \\
& /2*c)) + (1 - \text{Hypergeometric2F1}[-n^(-1), -n^(-1), (-1 + n)/n, -1/2*(-b + S \\
& \text{qrt}[b^2 - 4*a*c])/(c*(-1/2*(-b + \text{Sqrt}[b^2 - 4*a*c])/c + x^n))]/(x^n/(-1/2*
\end{aligned}$$

$-b + \sqrt{b^2 - 4ac})/c + x^n)^{n(-1)}/((b(-b + \sqrt{b^2 - 4ac}))/((2c) + (-b + \sqrt{b^2 - 4ac})^2/(2c))))/((-b^2 + 4ac)*n)$

**fricas** [F] time = 0.86, size = 0, normalized size = 0.00

$$\text{integral}\left(\frac{ex + d}{c^2x^{4n} + b^2x^{2n} + 2abx^n + a^2 + 2(bc x^n + ac)x^{2n}}, x\right)$$

Verification of antiderivative is not currently implemented for this CAS.

[In] integrate((e\*x+d)/(a+b\*x^n+c\*x^(2\*n))^2,x, algorithm="fricas")

[Out] integral((e\*x + d)/(c^2\*x^(4\*n) + b^2\*x^(2\*n) + 2\*a\*b\*x^n + a^2 + 2\*(b\*c\*x^n + a\*c)\*x^(2\*n)), x)

**giac** [F] time = 0.00, size = 0, normalized size = 0.00

$$\int \frac{ex + d}{(cx^{2n} + bx^n + a)^2} dx$$

Verification of antiderivative is not currently implemented for this CAS.

[In] integrate((e\*x+d)/(a+b\*x^n+c\*x^(2\*n))^2,x, algorithm="giac")

[Out] integrate((e\*x + d)/(c\*x^(2\*n) + b\*x^n + a)^2, x)

**maple** [F] time = 0.09, size = 0, normalized size = 0.00

$$\int \frac{ex + d}{(bx^n + cx^{2n} + a)^2} dx$$

Verification of antiderivative is not currently implemented for this CAS.

[In] int((e\*x+d)/(b\*x^n+c\*x^(2\*n)+a)^2,x)

[Out] int((e\*x+d)/(b\*x^n+c\*x^(2\*n)+a)^2,x)

**maxima** [F] time = 0.00, size = 0, normalized size = 0.00

$$\frac{(b^2e - 2ace)x^2 + (bcex^2 + bcdx)x^n + (b^2d - 2acd)x}{a^2b^{2n} - 4a^3cn + (ab^2cn - 4a^2c^2n)x^{2n} + (ab^3n - 4a^2bcn)x^n} - \int \frac{2acd(2n-1) - b^2d(n-1) - (bce(n-2)x + b^2d(n-1))}{a^2b^{2n} - 4a^3cn + (ab^2cn - 4a^2c^2n)x^{2n} + (ab^3n - 4a^2bcn)x^n} dx$$

Verification of antiderivative is not currently implemented for this CAS.

[In] integrate((e\*x+d)/(a+b\*x^n+c\*x^(2\*n))^2,x, algorithm="maxima")

[Out] ((b^2\*e - 2\*a\*c\*e)\*x^2 + (b\*c\*e\*x^2 + b\*c\*d\*x)\*x^n + (b^2\*d - 2\*a\*c\*d)\*x)/(a^2\*b^2\*n - 4\*a^3\*c\*n + (a\*b^2\*c\*n - 4\*a^2\*c^2\*n)\*x^(2\*n) + (a\*b^3\*n - 4\*a^2\*b\*c\*n)\*x^n) - integrate((2\*a\*c\*d\*(2\*n - 1) - b^2\*d\*(n - 1) - (b\*c\*e\*(n - 2)\*x + b\*c\*d\*(n - 1))\*x^n + (4\*a\*c\*e\*(n - 1) - b^2\*e\*(n - 2))\*x)/(a^2\*b^2\*n - 4\*a^3\*c\*n + (a\*b^2\*c\*n - 4\*a^2\*c^2\*n)\*x^(2\*n) + (a\*b^3\*n - 4\*a^2\*b\*c\*n)\*x^n), x)

**mupad** [F] time = 0.00, size = -1, normalized size = -0.00

$$\int \frac{d + ex}{(a + bx^n + cx^{2n})^2} dx$$

Verification of antiderivative is not currently implemented for this CAS.

[In] int((d + e\*x)/(a + b\*x^n + c\*x^(2\*n))^2,x)

```
[Out] int((d + e*x)/(a + b*x^n + c*x^(2*n))^2, x)
```

```
sympy [F(-1)] time = 0.00, size = 0, normalized size = 0.00
```

Timed out

Verification of antiderivative is not currently implemented for this CAS.

```
[In] integrate((e*x+d)/(a+b*x**n+c*x**(2*n))**2,x)
```

```
[Out] Timed out
```



$$3.8 \quad \int \frac{d+ex+fx^2}{(a+bx^n+cx^{2n})^2} dx$$

**Optimal.** Leaf size=1194

$$\frac{2bc^2e(2-n) {}_2F_1\left(1, \frac{n+2}{n}; 2\left(1+\frac{1}{n}\right); -\frac{2cx^n}{b-\sqrt{b^2-4ac}}\right) x^{n+2}}{a(b^2-4ac)^{3/2}\left(b-\sqrt{b^2-4ac}\right)n(n+2)} + \frac{2bc^2e(2-n) {}_2F_1\left(1, \frac{n+2}{n}; 2\left(1+\frac{1}{n}\right); -\frac{2cx^n}{b+\sqrt{b^2-4ac}}\right) x^{n+2}}{a(b^2-4ac)^{3/2}\left(b+\sqrt{b^2-4ac}\right)n(n+2)}$$

[Out]  $d*x*(b^2-2*a*c+b*c*x^n)/a/(-4*a*c+b^2)/n/(a+b*x^n+c*x^(2*n))+e*x^2*(b^2-2*a*c+b*c*x^n)/a/(-4*a*c+b^2)/n/(a+b*x^n+c*x^(2*n))+f*x^3*(b^2-2*a*c+b*c*x^n)/a/(-4*a*c+b^2)/n/(a+b*x^n+c*x^(2*n))-2*b*c^2*e*(2-n)*x^(2+n)*hypergeom([1, (2+n)/n], [2+2/n], -2*c*x^n/(b-(-4*a*c+b^2)^(1/2)))/a/(-4*a*c+b^2)^(3/2)/n/(2+n)/(b-(-4*a*c+b^2)^(1/2))-2*b*c^2*f*(3-n)*x^(3+n)*hypergeom([1, (3+n)/n], [2+3/n], -2*c*x^n/(b-(-4*a*c+b^2)^(1/2)))/a/(-4*a*c+b^2)^(3/2)/n/(3+n)/(b-(-4*a*c+b^2)^(1/2))+2*b*c^2*e*(2-n)*x^(2+n)*hypergeom([1, (2+n)/n], [2+2/n], -2*c*x^n/(b+(-4*a*c+b^2)^(1/2)))/a/(-4*a*c+b^2)^(3/2)/n/(2+n)/(b+(-4*a*c+b^2)^(1/2))+2*b*c^2*f*(3-n)*x^(3+n)*hypergeom([1, (3+n)/n], [2+3/n], -2*c*x^n/(b+(-4*a*c+b^2)^(1/2)))/a/(-4*a*c+b^2)^(3/2)/n/(3+n)/(b+(-4*a*c+b^2)^(1/2))-c*e*(4*a*c*(1-n)-b^2*(2-n))*x^2*hypergeom([1, 2/n], [(2+n)/n], -2*c*x^n/(b-(-4*a*c+b^2)^(1/2)))/a/(-4*a*c+b^2)/n/(b^2-4*a*c-b*(-4*a*c+b^2)^(1/2))-2/3*c*f*(2*a*c*(3-2*n)-b^2*(3-n))*x^3*hypergeom([1, 3/n], [(3+n)/n], -2*c*x^n/(b-(-4*a*c+b^2)^(1/2)))/a/(-4*a*c+b^2)/n/(b^2-4*a*c-b*(-4*a*c+b^2)^(1/2))-c*e*(4*a*c*(1-n)-b^2*(2-n))*x^2*hypergeom([1, 2/n], [(2+n)/n], -2*c*x^n/(b+(-4*a*c+b^2)^(1/2)))/a/(-4*a*c+b^2)/n/(b^2-4*a*c+b*(-4*a*c+b^2)^(1/2))-2/3*c*f*(2*a*c*(3-2*n)-b^2*(3-n))*x^3*hypergeom([1, 3/n], [(3+n)/n], -2*c*x^n/(b+(-4*a*c+b^2)^(1/2)))/a/(-4*a*c+b^2)/n/(b^2-4*a*c+b*(-4*a*c+b^2)^(1/2))-c*d*x*hypergeom([1, 1/n], [1+1/n], -2*c*x^n/(b-(-4*a*c+b^2)^(1/2)))*(4*a*c*(1-2*n)-b^2*(1-n)-b*(1-n)*(-4*a*c+b^2)^(1/2))/a/(-4*a*c+b^2)/n/(b^2-4*a*c-b*(-4*a*c+b^2)^(1/2))-c*d*x*hypergeom([1, 1/n], [1+1/n], -2*c*x^n/(b+(-4*a*c+b^2)^(1/2)))*(4*a*c*(1-2*n)-b^2*(1-n)+b*(1-n)*(-4*a*c+b^2)^(1/2))/a/(-4*a*c+b^2)/n/(b^2-4*a*c+b*(-4*a*c+b^2)^(1/2))$

**Rubi [A]** time = 2.05, antiderivative size = 1194, normalized size of antiderivative = 1.00, number of steps used = 24, number of rules used = 8, integrand size = 27,  $\frac{\text{number of rules}}{\text{integrand size}} = 0.296$ , Rules used = {1796, 1345, 1422, 245, 1384, 1560, 1383, 364}

$$\frac{2bc^2e(2-n) {}_2F_1\left(1, \frac{n+2}{n}; 2\left(1+\frac{1}{n}\right); -\frac{2cx^n}{b-\sqrt{b^2-4ac}}\right) x^{n+2}}{a(b^2-4ac)^{3/2}\left(b-\sqrt{b^2-4ac}\right)n(n+2)} + \frac{2bc^2e(2-n) {}_2F_1\left(1, \frac{n+2}{n}; 2\left(1+\frac{1}{n}\right); -\frac{2cx^n}{b+\sqrt{b^2-4ac}}\right) x^{n+2}}{a(b^2-4ac)^{3/2}\left(b+\sqrt{b^2-4ac}\right)n(n+2)}$$

Antiderivative was successfully verified.

[In] Int[(d + e\*x + f\*x^2)/(a + b\*x^n + c\*x^(2\*n))^2, x]

[Out]  $(d*x*(b^2-2*a*c+b*c*x^n))/(a*(b^2-4*a*c)*n*(a+b*x^n+c*x^(2*n)))+(e*x^2*(b^2-2*a*c+b*c*x^n))/(a*(b^2-4*a*c)*n*(a+b*x^n+c*x^(2*n)))+(f*x^3*(b^2-2*a*c+b*c*x^n))/(a*(b^2-4*a*c)*n*(a+b*x^n+c*x^(2*n)))-(c*d*(4*a*c*(1-2*n)-b^2*(1-n)-b*sqrt[b^2-4*a*c]*(1-n))*x*Hypergeometric2F1[1, n^(-1), 1+n^(-1), (-2*c*x^n)/(b-sqrt[b^2-4*a*c])]/(a*(b^2-4*a*c)*(b^2-4*a*c-b*sqrt[b^2-4*a*c])*n)-(c*d*(4*a*c*(1-2*n)-b^2*(1-n)+b*sqrt[b^2-4*a*c]*(1-n))*x*Hypergeometric2F1[1, n^(-1), 1+n^(-1), (-2*c*x^n)/(b+sqrt[b^2-4*a*c])]/(a*(b^2-4*a*c)*(b^2-4*a*c+b*sqrt[b^2-4*a*c])*n)-(c*e*(4*a*c*(1-n)-b^2*(2-n))*x^2*Hypergeometric2F1[1, 2/n, (2+n)/n, (-2*c*x^n)/(b-sqrt[b^2-4*a*c])]/(a*(b^2-4*a*c)*(b^2-4*a*c-b*sqrt[b^2-4*a*c])*n)-(c*e*(4*a*c*(1-n)-b^2*(2-n))*x^2*Hypergeometric2F1[1, 2/n, (2+n)/n, (-2*c*x^n)/(b+sqrt[b^2-4*a*c])]/(a*(b^2-4*a*c)*(b^2-4*a*c+b*sqrt[b^2-4*a*c])*n)$

$c]) * n) - (2 * c * f * (2 * a * c * (3 - 2 * n) - b^2 * (3 - n)) * x^3 * \text{Hypergeometric2F1}[1, 3/n, (3 + n)/n, (-2 * c * x^n)/(b - \text{Sqrt}[b^2 - 4 * a * c])]) / (3 * a * (b^2 - 4 * a * c) * (b^2 - 4 * a * c - b * \text{Sqrt}[b^2 - 4 * a * c]) * n) - (2 * c * f * (2 * a * c * (3 - 2 * n) - b^2 * (3 - n)) * x^3 * \text{Hypergeometric2F1}[1, 3/n, (3 + n)/n, (-2 * c * x^n)/(b + \text{Sqrt}[b^2 - 4 * a * c])]) / (3 * a * (b^2 - 4 * a * c) * (b^2 - 4 * a * c + b * \text{Sqrt}[b^2 - 4 * a * c]) * n) - (2 * b * c^2 * e * (2 - n) * x^{(2 + n)} * \text{Hypergeometric2F1}[1, (2 + n)/n, 2 * (1 + n^{-1}), (-2 * c * x^n)/(b - \text{Sqrt}[b^2 - 4 * a * c])]) / (a * (b^2 - 4 * a * c)^{(3/2)} * (b - \text{Sqrt}[b^2 - 4 * a * c]) * n * (2 + n)) + (2 * b * c^2 * e * (2 - n) * x^{(2 + n)} * \text{Hypergeometric2F1}[1, (2 + n)/n, 2 * (1 + n^{-1}), (-2 * c * x^n)/(b + \text{Sqrt}[b^2 - 4 * a * c])]) / (a * (b^2 - 4 * a * c)^{(3/2)} * (b + \text{Sqrt}[b^2 - 4 * a * c]) * n * (2 + n)) - (2 * b * c^2 * f * (3 - n) * x^{(3 + n)} * \text{Hypergeometric2F1}[1, (3 + n)/n, 2 + 3/n, (-2 * c * x^n)/(b - \text{Sqrt}[b^2 - 4 * a * c])]) / (a * (b^2 - 4 * a * c)^{(3/2)} * (b - \text{Sqrt}[b^2 - 4 * a * c]) * n * (3 + n)) + (2 * b * c^2 * f * (3 - n) * x^{(3 + n)} * \text{Hypergeometric2F1}[1, (3 + n)/n, 2 + 3/n, (-2 * c * x^n)/(b + \text{Sqrt}[b^2 - 4 * a * c])]) / (a * (b^2 - 4 * a * c)^{(3/2)} * (b + \text{Sqrt}[b^2 - 4 * a * c]) * n * (3 + n))$

#### Rule 245

$\text{Int}[(a\_ + (b\_)*(x\_)^{(n\_)})^{(p\_)}, x\_Symbol] \rightarrow \text{Simp}[a^p * x * \text{Hypergeometric2F1}[-p, 1/n, 1/n + 1, -(b * x^n)/a], x] /; \text{FreeQ}\{a, b, n, p\}, x] \&\& \text{!IGtQ}[p, 0] \&\& \text{!IntegerQ}[1/n] \&\& \text{!ILtQ}[\text{Simplify}[1/n + p], 0] \&\& (\text{IntegerQ}[p] \parallel \text{GtQ}[a, 0])$

#### Rule 364

$\text{Int}[(c\_)*(x\_)^{(m\_)} * ((a\_ + (b\_)*(x\_)^{(n\_)})^{(p\_)}), x\_Symbol] \rightarrow \text{Simp}[(a^p * (c * x)^{(m + 1)} * \text{Hypergeometric2F1}[-p, (m + 1)/n, (m + 1)/n + 1, -(b * x^n)/a]) / (c * (m + 1)), x] /; \text{FreeQ}\{a, b, c, m, n, p\}, x] \&\& \text{!IGtQ}[p, 0] \&\& (\text{ILtQ}[p, 0] \parallel \text{GtQ}[a, 0])$

#### Rule 1345

$\text{Int}[(a\_ + (c\_)*(x\_)^{(n2\_)} + (b\_)*(x\_)^{(n\_)})^{(p\_)}, x\_Symbol] \rightarrow -\text{Simp}[(x * (b^2 - 2 * a * c + b * c * x^n) * (a + b * x^n + c * x^{(2 * n)})^{(p + 1)}) / (a * n * (p + 1) * (b^2 - 4 * a * c)), x] + \text{Dist}[1 / (a * n * (p + 1) * (b^2 - 4 * a * c)), \text{Int}[(b^2 - 2 * a * c + n * (p + 1) * (b^2 - 4 * a * c) + b * c * (n * (2 * p + 3) + 1) * x^n) * (a + b * x^n + c * x^{(2 * n)})^{(p + 1)}, x], x] /; \text{FreeQ}\{a, b, c, n\}, x] \&\& \text{EqQ}[n2, 2 * n] \&\& \text{NeQ}[b^2 - 4 * a * c, 0] \&\& \text{ILtQ}[p, -1]$

#### Rule 1383

$\text{Int}[(d\_)*(x\_)^{(m\_)} / ((a\_ + (c\_)*(x\_)^{(n2\_)} + (b\_)*(x\_)^{(n\_)}), x\_Symbol] \rightarrow \text{With}\{q = \text{Rt}[b^2 - 4 * a * c, 2]\}, \text{Dist}[(2 * c)/q, \text{Int}[(d * x)^m / (b - q + 2 * c * x^n), x], x] - \text{Dist}[(2 * c)/q, \text{Int}[(d * x)^m / (b + q + 2 * c * x^n), x], x] /; \text{FreeQ}\{a, b, c, d, m, n\}, x] \&\& \text{EqQ}[n2, 2 * n] \&\& \text{NeQ}[b^2 - 4 * a * c, 0]$

#### Rule 1384

$\text{Int}[(d\_)*(x\_)^{(m\_)} * ((a\_ + (c\_)*(x\_)^{(n2\_)} + (b\_)*(x\_)^{(n\_)})^{(p\_)}), x\_Symbol] \rightarrow -\text{Simp}[(d * x)^{(m + 1)} * (b^2 - 2 * a * c + b * c * x^n) * (a + b * x^n + c * x^{(2 * n)})^{(p + 1)} / (a * d * n * (p + 1) * (b^2 - 4 * a * c)), x] + \text{Dist}[1 / (a * n * (p + 1) * (b^2 - 4 * a * c)), \text{Int}[(d * x)^m * (a + b * x^n + c * x^{(2 * n)})^{(p + 1)} * \text{Simp}[b^2 * (n * (p + 1) + m + 1) - 2 * a * c * (m + 2 * n * (p + 1) + 1) + b * c * (2 * n * p + 3 * n + m + 1) * x^n, x], x], x] /; \text{FreeQ}\{a, b, c, d, m, n\}, x] \&\& \text{EqQ}[n2, 2 * n] \&\& \text{NeQ}[b^2 - 4 * a * c, 0] \&\& \text{ILtQ}[p + 1, 0]$

#### Rule 1422

$\text{Int}[(d\_ + (e\_)*(x\_)^{(n\_)}) / ((a\_ + (b\_)*(x\_)^{(n\_)} + (c\_)*(x\_)^{(n2\_)}), x\_Symbol] \rightarrow \text{With}\{q = \text{Rt}[b^2 - 4 * a * c, 2]\}, \text{Dist}[e/2 + (2 * c * d - b * e) / (2 * q), \text{Int}[1 / (b/2 - q/2 + c * x^n), x], x] + \text{Dist}[e/2 - (2 * c * d - b * e) / (2 * q), \text{Int}[1 / ($

$b/2 + q/2 + c*x^n$ , x], x]] /; FreeQ[{a, b, c, d, e, n}, x] && EqQ[n2, 2\*n] && NeQ[b^2 - 4\*a\*c, 0] && NeQ[c\*d^2 - b\*d\*e + a\*e^2, 0] && (PosQ[b^2 - 4\*a\*c] || !IGtQ[n/2, 0])

### Rule 1560

Int[((f\_)\*(x\_)^(m\_))\*((a\_) + (c\_)\*(x\_)^(n2\_)) + (b\_)\*(x\_)^(n\_)]^(p\_)\*((d\_) + (e\_)\*(x\_)^(n\_)]^(q\_), x\_Symbol] :> Int[ExpandIntegrand[(f\*x)^m\*(d + e\*x^n)^q\*(a + b\*x^n + c\*x^(2\*n))^p, x], x] /; FreeQ[{a, b, c, d, e, f, m, n, p, q}, x] && EqQ[n2, 2\*n] && NeQ[b^2 - 4\*a\*c, 0] && (IGtQ[p, 0] || IGtQ[q, 0])

### Rule 1796

Int[(Pq\_)\*((a\_) + (b\_)\*(x\_)^(n\_)) + (c\_)\*(x\_)^(n2\_)]^(p\_), x\_Symbol] :> Int[ExpandIntegrand[Pq\*(a + b\*x^n + c\*x^(2\*n))^p, x], x] /; FreeQ[{a, b, c, n}, x] && EqQ[n2, 2\*n] && PolyQ[Pq, x] && ILtQ[p, -1]

### Rubi steps

$$\begin{aligned} \int \frac{d + ex + fx^2}{(a + bx^n + cx^{2n})^2} dx &= \int \left( \frac{d}{(a + bx^n + cx^{2n})^2} + \frac{ex}{(a + bx^n + cx^{2n})^2} + \frac{fx^2}{(a + bx^n + cx^{2n})^2} \right) dx \\ &= d \int \frac{1}{(a + bx^n + cx^{2n})^2} dx + e \int \frac{x}{(a + bx^n + cx^{2n})^2} dx + f \int \frac{x^2}{(a + bx^n + cx^{2n})^2} dx \\ &= \frac{dx(b^2 - 2ac + bcx^n)}{a(b^2 - 4ac)n(a + bx^n + cx^{2n})} + \frac{ex^2(b^2 - 2ac + bcx^n)}{a(b^2 - 4ac)n(a + bx^n + cx^{2n})} + \frac{fx^3(b^2 - 2ac + bcx^n)}{a(b^2 - 4ac)n(a + bx^n + cx^{2n})} \\ &= \frac{dx(b^2 - 2ac + bcx^n)}{a(b^2 - 4ac)n(a + bx^n + cx^{2n})} + \frac{ex^2(b^2 - 2ac + bcx^n)}{a(b^2 - 4ac)n(a + bx^n + cx^{2n})} + \frac{fx^3(b^2 - 2ac + bcx^n)}{a(b^2 - 4ac)n(a + bx^n + cx^{2n})} \\ &= \frac{dx(b^2 - 2ac + bcx^n)}{a(b^2 - 4ac)n(a + bx^n + cx^{2n})} + \frac{ex^2(b^2 - 2ac + bcx^n)}{a(b^2 - 4ac)n(a + bx^n + cx^{2n})} + \frac{fx^3(b^2 - 2ac + bcx^n)}{a(b^2 - 4ac)n(a + bx^n + cx^{2n})} \\ &= \frac{dx(b^2 - 2ac + bcx^n)}{a(b^2 - 4ac)n(a + bx^n + cx^{2n})} + \frac{ex^2(b^2 - 2ac + bcx^n)}{a(b^2 - 4ac)n(a + bx^n + cx^{2n})} + \frac{fx^3(b^2 - 2ac + bcx^n)}{a(b^2 - 4ac)n(a + bx^n + cx^{2n})} \end{aligned}$$

**Mathematica [B]** time = 6.51, size = 6525, normalized size = 5.46

Result too large to show

Warning: Unable to verify antiderivative.

[In] Integrate[(d + e\*x + f\*x^2)/(a + b\*x^n + c\*x^(2\*n))^2, x]

[Out] Result too large to show

**fricas** [F] time = 0.75, size = 0, normalized size = 0.00

$$\text{integral}\left(\frac{fx^2 + ex + d}{c^2x^{4n} + b^2x^{2n} + 2abx^n + a^2 + 2(bc x^n + ac)x^{2n}}, x\right)$$

Verification of antiderivative is not currently implemented for this CAS.

[In] integrate((f\*x^2+e\*x+d)/(a+b\*x^n+c\*x^(2\*n))^2,x, algorithm="fricas")

[Out] integral((f\*x^2 + e\*x + d)/(c^2\*x^(4\*n) + b^2\*x^(2\*n) + 2\*a\*b\*x^n + a^2 + 2\*(b\*c\*x^n + a\*c)\*x^(2\*n)), x)

**giac** [F] time = 0.00, size = 0, normalized size = 0.00

$$\int \frac{fx^2 + ex + d}{(cx^{2n} + bx^n + a)^2} dx$$

Verification of antiderivative is not currently implemented for this CAS.

[In] integrate((f\*x^2+e\*x+d)/(a+b\*x^n+c\*x^(2\*n))^2,x, algorithm="giac")

[Out] integrate((f\*x^2 + e\*x + d)/(c\*x^(2\*n) + b\*x^n + a)^2, x)

**maple** [F] time = 0.07, size = 0, normalized size = 0.00

$$\int \frac{fx^2 + ex + d}{(bx^n + cx^{2n} + a)^2} dx$$

Verification of antiderivative is not currently implemented for this CAS.

[In] int((f\*x^2+e\*x+d)/(b\*x^n+c\*x^(2\*n)+a)^2,x)

[Out] int((f\*x^2+e\*x+d)/(b\*x^n+c\*x^(2\*n)+a)^2,x)

**maxima** [F] time = 0.00, size = 0, normalized size = 0.00

$$\frac{(b^2f - 2acf)x^3 + (b^2e - 2ace)x^2 + (bcfx^3 + bcex^2 + bcdx)x^n + (b^2d - 2acd)x}{a^2b^2n - 4a^3cn + (ab^2cn - 4a^2c^2n)x^{2n} + (ab^3n - 4a^2bcn)x^n} \int \frac{2acd(2n-1) - b^2d(n-1) + (b^2f - 2acf)x^3 + (b^2e - 2ace)x^2 + (bcfx^3 + bcex^2 + bcdx)x^n + (b^2d - 2acd)x}{a^2b^2n - 4a^3cn + (ab^2cn - 4a^2c^2n)x^{2n} + (ab^3n - 4a^2bcn)x^n} dx$$

Verification of antiderivative is not currently implemented for this CAS.

[In] integrate((f\*x^2+e\*x+d)/(a+b\*x^n+c\*x^(2\*n))^2,x, algorithm="maxima")

[Out] ((b^2\*f - 2\*a\*c\*f)\*x^3 + (b^2\*e - 2\*a\*c\*e)\*x^2 + (b\*c\*f\*x^3 + b\*c\*e\*x^2 + b\*c\*d\*x)\*x^n + (b^2\*d - 2\*a\*c\*d)\*x)/(a^2\*b^2\*n - 4\*a^3\*c\*n + (a\*b^2\*c\*n - 4\*a^2\*c^2\*n)\*x^(2\*n) + (a\*b^3\*n - 4\*a^2\*b\*c\*n)\*x^n) - integrate((2\*a\*c\*d\*(2\*n - 1) - b^2\*d\*(n - 1) + (2\*a\*c\*f\*(2\*n - 3) - b^2\*f\*(n - 3))\*x^2 - (b\*c\*f\*(n - 3)\*x^2 + b\*c\*e\*(n - 2)\*x + b\*c\*d\*(n - 1))\*x^n + (4\*a\*c\*e\*(n - 1) - b^2\*e\*(n - 2))\*x)/(a^2\*b^2\*n - 4\*a^3\*c\*n + (a\*b^2\*c\*n - 4\*a^2\*c^2\*n)\*x^(2\*n) + (a\*b^3\*n - 4\*a^2\*b\*c\*n)\*x^n), x)

**mupad** [F] time = 0.00, size = -1, normalized size = -0.00

$$\int \frac{fx^2 + ex + d}{(a + bx^n + cx^{2n})^2} dx$$

Verification of antiderivative is not currently implemented for this CAS.

[In] int((d + e\*x + f\*x^2)/(a + b\*x^n + c\*x^(2\*n))^2,x)

[Out] int((d + e\*x + f\*x^2)/(a + b\*x^n + c\*x^(2\*n))^2, x)

sympy [F(-1)] time = 0.00, size = 0, normalized size = 0.00

Timed out

Verification of antiderivative is not currently implemented for this CAS.

[In] integrate((f\*x\*\*2+e\*x+d)/(a+b\*x\*\*n+c\*x\*\*(2\*n))\*\*2,x)

[Out] Timed out

### 3.9 $\int \frac{d+ex+fx^2+gx^3}{(a+bx^n+cx^{2n})^2} dx$

**Optimal.** Leaf size=1654

$$\frac{2bc^2e(2-n) {}_2F_1\left(1, \frac{n+2}{n}; 2\left(1 + \frac{1}{n}\right); -\frac{2cx^n}{b-\sqrt{b^2-4ac}}\right) x^{n+2}}{a(b^2-4ac)^{3/2} \left(b - \sqrt{b^2-4ac}\right) n(n+2)} + \frac{2bc^2e(2-n) {}_2F_1\left(1, \frac{n+2}{n}; 2\left(1 + \frac{1}{n}\right); -\frac{2cx^n}{b+\sqrt{b^2-4ac}}\right) x^{n+2}}{a(b^2-4ac)^{3/2} \left(b + \sqrt{b^2-4ac}\right) n(n+2)}$$

```
[Out] d*x*(b^2-2*a*c+b*c*x^n)/a/(-4*a*c+b^2)/n/(a+b*x^n+c*x^(2*n))+e*x^2*(b^2-2*a*c+b*c*x^n)/a/(-4*a*c+b^2)/n/(a+b*x^n+c*x^(2*n))+f*x^3*(b^2-2*a*c+b*c*x^n)/a/(-4*a*c+b^2)/n/(a+b*x^n+c*x^(2*n))+g*x^4*(b^2-2*a*c+b*c*x^n)/a/(-4*a*c+b^2)/n/(a+b*x^n+c*x^(2*n))-2*b*c^2*e*(2-n)*x^(2+n)*hypergeom([1, (2+n)/n], [2+2/n], -2*c*x^n/(b-(-4*a*c+b^2)^(1/2)))/a/(-4*a*c+b^2)^(3/2)/n/(2+n)/(b-(-4*a*c+b^2)^(1/2))-2*b*c^2*f*(3-n)*x^(3+n)*hypergeom([1, (3+n)/n], [2+3/n], -2*c*x^n/(b-(-4*a*c+b^2)^(1/2)))/a/(-4*a*c+b^2)^(3/2)/n/(3+n)/(b-(-4*a*c+b^2)^(1/2))-2*b*c^2*g*(4-n)*x^(4+n)*hypergeom([1, (4+n)/n], [2+4/n], -2*c*x^n/(b-(-4*a*c+b^2)^(1/2)))/a/(-4*a*c+b^2)^(3/2)/n/(4+n)/(b-(-4*a*c+b^2)^(1/2))+2*b*c^2*e*(2-n)*x^(2+n)*hypergeom([1, (2+n)/n], [2+2/n], -2*c*x^n/(b+(-4*a*c+b^2)^(1/2)))/a/(-4*a*c+b^2)^(3/2)/n/(2+n)/(b+(-4*a*c+b^2)^(1/2))+2*b*c^2*f*(3-n)*x^(3+n)*hypergeom([1, (3+n)/n], [2+3/n], -2*c*x^n/(b+(-4*a*c+b^2)^(1/2)))/a/(-4*a*c+b^2)^(3/2)/n/(3+n)/(b+(-4*a*c+b^2)^(1/2))+2*b*c^2*g*(4-n)*x^(4+n)*hypergeom([1, (4+n)/n], [2+4/n], -2*c*x^n/(b+(-4*a*c+b^2)^(1/2)))/a/(-4*a*c+b^2)^(3/2)/n/(4+n)/(b+(-4*a*c+b^2)^(1/2))-c*e*(4*a*c*(1-n)-b^2*(2-n))*x^2*hypergeom([1, 2/n], [(2+n)/n], -2*c*x^n/(b-(-4*a*c+b^2)^(1/2)))/a/(-4*a*c+b^2)/n/(b^2-4*a*c-b*(-4*a*c+b^2)^(1/2))-2/3*c*f*(2*a*c*(3-2*n)-b^2*(3-n))*x^3*hypergeom([1, 3/n], [(3+n)/n], -2*c*x^n/(b-(-4*a*c+b^2)^(1/2)))/a/(-4*a*c+b^2)/n/(b^2-4*a*c-b*(-4*a*c+b^2)^(1/2))-1/2*c*g*(4*a*c*(2-n)-b^2*(4-n))*x^4*hypergeom([1, 4/n], [(4+n)/n], -2*c*x^n/(b-(-4*a*c+b^2)^(1/2)))/a/(-4*a*c+b^2)/n/(b^2-4*a*c-b*(-4*a*c+b^2)^(1/2))-c*e*(4*a*c*(1-n)-b^2*(2-n))*x^2*hypergeom([1, 2/n], [(2+n)/n], -2*c*x^n/(b+(-4*a*c+b^2)^(1/2)))/a/(-4*a*c+b^2)/n/(b^2-4*a*c+b*(-4*a*c+b^2)^(1/2))-2/3*c*f*(2*a*c*(3-2*n)-b^2*(3-n))*x^3*hypergeom([1, 3/n], [(3+n)/n], -2*c*x^n/(b+(-4*a*c+b^2)^(1/2)))/a/(-4*a*c+b^2)/n/(b^2-4*a*c+b*(-4*a*c+b^2)^(1/2))-1/2*c*g*(4*a*c*(2-n)-b^2*(4-n))*x^4*hypergeom([1, 4/n], [(4+n)/n], -2*c*x^n/(b+(-4*a*c+b^2)^(1/2)))/a/(-4*a*c+b^2)/n/(b^2-4*a*c+b*(-4*a*c+b^2)^(1/2))-c*d*x*hypergeom([1, 1/n], [1+1/n], -2*c*x^n/(b-(-4*a*c+b^2)^(1/2)))*(4*a*c*(1-2*n)-b^2*(1-n)-b*(1-n)*(-4*a*c+b^2)^(1/2))/a/(-4*a*c+b^2)/n/(b^2-4*a*c-b*(-4*a*c+b^2)^(1/2))-c*d*x*hypergeom([1, 1/n], [1+1/n], -2*c*x^n/(b+(-4*a*c+b^2)^(1/2)))*(4*a*c*(1-2*n)-b^2*(1-n)+b*(1-n)*(-4*a*c+b^2)^(1/2))/a/(-4*a*c+b^2)/n/(b^2-4*a*c+b*(-4*a*c+b^2)^(1/2))
```

**Rubi [A]** time = 2.91, antiderivative size = 1654, normalized size of antiderivative = 1.00, number of steps used = 33, number of rules used = 8, integrand size = 32,  $\frac{\text{number of rules}}{\text{integrand size}} = 0.250$ , Rules used = {1796, 1345, 1422, 245, 1384, 1560, 1383, 364}

result too large to display

Antiderivative was successfully verified.

```
[In] Int[(d + e*x + f*x^2 + g*x^3)/(a + b*x^n + c*x^(2*n))^2,x]
[Out] (d*x*(b^2 - 2*a*c + b*c*x^n))/(a*(b^2 - 4*a*c)*n*(a + b*x^n + c*x^(2*n))) + (e*x^2*(b^2 - 2*a*c + b*c*x^n))/(a*(b^2 - 4*a*c)*n*(a + b*x^n + c*x^(2*n))) + (f*x^3*(b^2 - 2*a*c + b*c*x^n))/(a*(b^2 - 4*a*c)*n*(a + b*x^n + c*x^(2*n))) + (g*x^4*(b^2 - 2*a*c + b*c*x^n))/(a*(b^2 - 4*a*c)*n*(a + b*x^n + c*x^(2*n))) - (c*d*(4*a*c*(1 - 2*n) - b^2*(1 - n) - b*Sqrt[b^2 - 4*a*c]*(1 - n))*x*Hypergeometric2F1[1, n^(-1), 1 + n^(-1), (-2*c*x^n)/(b - Sqrt[b^2 - 4*a*c])]/(a*(b^2 - 4*a*c)*(b^2 - 4*a*c - b*Sqrt[b^2 - 4*a*c])*n) - (c*d*(4*a*c*(1 - 2*n) - b^2*(1 - n) + b*Sqrt[b^2 - 4*a*c]*(1 - n))*x*Hypergeometric2F
```

$$\frac{1[1, n^{-1}, 1 + n^{-1}, (-2cx^n)/(b + \sqrt{b^2 - 4ac})]}{(a(b^2 - 4ac)(b^2 - 4ac + b\sqrt{b^2 - 4ac})^n - (c(4ac(1 - n) - b^2(2 - n))x^2 \text{Hypergeometric2F1}[1, 2/n, (2 + n)/n, (-2cx^n)/(b - \sqrt{b^2 - 4ac})])]} \frac{1[1, n^{-1}, 1 + n^{-1}, (-2cx^n)/(b - \sqrt{b^2 - 4ac})]}{(a(b^2 - 4ac)(b^2 - 4ac - b\sqrt{b^2 - 4ac})^n - (c(4ac(1 - n) - b^2(2 - n))x^2 \text{Hypergeometric2F1}[1, 2/n, (2 + n)/n, (-2cx^n)/(b + \sqrt{b^2 - 4ac})])} \frac{1[1, n^{-1}, 1 + n^{-1}, (-2cx^n)/(b - \sqrt{b^2 - 4ac})]}{(3a(b^2 - 4ac)(b^2 - 4ac - b\sqrt{b^2 - 4ac})^n - (2cf(2ac(3 - 2n) - b^2(3 - n))x^3 \text{Hypergeometric2F1}[1, 3/n, (3 + n)/n, (-2cx^n)/(b - \sqrt{b^2 - 4ac})])} \frac{1[1, n^{-1}, 1 + n^{-1}, (-2cx^n)/(b + \sqrt{b^2 - 4ac})]}{(3a(b^2 - 4ac)(b^2 - 4ac + b\sqrt{b^2 - 4ac})^n - (2cf(2ac(3 - 2n) - b^2(3 - n))x^3 \text{Hypergeometric2F1}[1, 3/n, (3 + n)/n, (-2cx^n)/(b + \sqrt{b^2 - 4ac})])} \frac{1[1, n^{-1}, 1 + n^{-1}, (-2cx^n)/(b - \sqrt{b^2 - 4ac})]}{(3a(b^2 - 4ac)(b^2 - 4ac - b\sqrt{b^2 - 4ac})^n - (cg(4ac(2 - n) - b^2(4 - n))x^4 \text{Hypergeometric2F1}[1, 4/n, (4 + n)/n, (-2cx^n)/(b - \sqrt{b^2 - 4ac})])} \frac{1[1, n^{-1}, 1 + n^{-1}, (-2cx^n)/(b + \sqrt{b^2 - 4ac})]}{(2a(b^2 - 4ac)(b^2 - 4ac - b\sqrt{b^2 - 4ac})^n - (cg(4ac(2 - n) - b^2(4 - n))x^4 \text{Hypergeometric2F1}[1, 4/n, (4 + n)/n, (-2cx^n)/(b + \sqrt{b^2 - 4ac})])} \frac{1[1, n^{-1}, 1 + n^{-1}, (-2cx^n)/(b - \sqrt{b^2 - 4ac})]}{(2b^2c^2e(2 - n)x^{(2 + n)} \text{Hypergeometric2F1}[1, (2 + n)/n, 2(1 + n^{-1}), (-2cx^n)/(b - \sqrt{b^2 - 4ac})])} \frac{1[1, n^{-1}, 1 + n^{-1}, (-2cx^n)/(b + \sqrt{b^2 - 4ac})]}{(2b^2c^2e(2 - n)x^{(2 + n)} \text{Hypergeometric2F1}[1, (2 + n)/n, 2(1 + n^{-1}), (-2cx^n)/(b + \sqrt{b^2 - 4ac})])} \frac{1[1, n^{-1}, 1 + n^{-1}, (-2cx^n)/(b - \sqrt{b^2 - 4ac})]}{(a(b^2 - 4ac)^{(3/2)}(b - \sqrt{b^2 - 4ac})^n(2 + n) + (2b^2c^2e(2 - n)x^{(2 + n)} \text{Hypergeometric2F1}[1, (2 + n)/n, 2(1 + n^{-1}), (-2cx^n)/(b - \sqrt{b^2 - 4ac})])} \frac{1[1, n^{-1}, 1 + n^{-1}, (-2cx^n)/(b + \sqrt{b^2 - 4ac})]}{(a(b^2 - 4ac)^{(3/2)}(b + \sqrt{b^2 - 4ac})^n(2 + n) - (2b^2c^2f(3 - n)x^{(3 + n)} \text{Hypergeometric2F1}[1, (3 + n)/n, 2 + 3/n, (-2cx^n)/(b - \sqrt{b^2 - 4ac})])} \frac{1[1, n^{-1}, 1 + n^{-1}, (-2cx^n)/(b - \sqrt{b^2 - 4ac})]}{(a(b^2 - 4ac)^{(3/2)}(b - \sqrt{b^2 - 4ac})^n(3 + n) + (2b^2c^2f(3 - n)x^{(3 + n)} \text{Hypergeometric2F1}[1, (3 + n)/n, 2 + 3/n, (-2cx^n)/(b + \sqrt{b^2 - 4ac})])} \frac{1[1, n^{-1}, 1 + n^{-1}, (-2cx^n)/(b + \sqrt{b^2 - 4ac})]}{(a(b^2 - 4ac)^{(3/2)}(b + \sqrt{b^2 - 4ac})^n(3 + n) - (2b^2c^2g(4 - n)x^{(4 + n)} \text{Hypergeometric2F1}[1, (4 + n)/n, 2(1 + 2/n), (-2cx^n)/(b - \sqrt{b^2 - 4ac})])} \frac{1[1, n^{-1}, 1 + n^{-1}, (-2cx^n)/(b - \sqrt{b^2 - 4ac})]}{(a(b^2 - 4ac)^{(3/2)}(b - \sqrt{b^2 - 4ac})^n(4 + n) + (2b^2c^2g(4 - n)x^{(4 + n)} \text{Hypergeometric2F1}[1, (4 + n)/n, 2(1 + 2/n), (-2cx^n)/(b + \sqrt{b^2 - 4ac})])} \frac{1[1, n^{-1}, 1 + n^{-1}, (-2cx^n)/(b + \sqrt{b^2 - 4ac})]}{(a(b^2 - 4ac)^{(3/2)}(b + \sqrt{b^2 - 4ac})^n(4 + n) - (2b^2c^2g(4 - n)x^{(4 + n)} \text{Hypergeometric2F1}[1, (4 + n)/n, 2(1 + 2/n), (-2cx^n)/(b - \sqrt{b^2 - 4ac})])} \frac{1[1, n^{-1}, 1 + n^{-1}, (-2cx^n)/(b - \sqrt{b^2 - 4ac})]}{(a(b^2 - 4ac)^{(3/2)}(b - \sqrt{b^2 - 4ac})^n(4 + n) + (2b^2c^2g(4 - n)x^{(4 + n)} \text{Hypergeometric2F1}[1, (4 + n)/n, 2(1 + 2/n), (-2cx^n)/(b + \sqrt{b^2 - 4ac})])}$$
Rule 245

```
Int[((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] := Simp[a^p*x*Hypergeometric2F1[-p, 1/n, 1/n + 1, -((b*x^n)/a)], x] /; FreeQ[{a, b, n, p}, x] && !IGtQ[p, 0] && !IntegerQ[1/n] && !ILtQ[Simplify[1/n + p], 0] && (IntegerQ[p] || GtQ[a, 0])
```

Rule 364

```
Int[((c_.)*(x_)^(m_.))*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] := Simp[(a^p*(c*x)^(m + 1)*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1, -((b*x^n)/a)])/((c*(m + 1)), x] /; FreeQ[{a, b, c, m, n, p}, x] && !IGtQ[p, 0] && (ILtQ[p, 0] || GtQ[a, 0])
```

Rule 1345

```
Int[((a_) + (c_.)*(x_)^(n2_.) + (b_.)*(x_)^(n_))^(p_), x_Symbol] := -Simp[(x*(b^2 - 2*a*c + b*c*x^n)*(a + b*x^n + c*x^(2*n))^(p + 1))/(a*n*(p + 1)*(b^2 - 4*a*c)), x] + Dist[1/(a*n*(p + 1)*(b^2 - 4*a*c)), Int[(b^2 - 2*a*c + n*(p + 1)*(b^2 - 4*a*c) + b*c*(n*(2*p + 3) + 1)*x^n)*(a + b*x^n + c*x^(2*n))^(p + 1), x], x] /; FreeQ[{a, b, c, n}, x] && EqQ[n2, 2*n] && NeQ[b^2 - 4*a*c, 0] && ILtQ[p, -1]
```

Rule 1383

```
Int[((d_.)*(x_)^(m_.))/((a_) + (c_.)*(x_)^(n2_.) + (b_.)*(x_)^(n_)), x_Symbol] := With[{q = Rt[b^2 - 4*a*c, 2]}, Dist[(2*c)/q, Int[(d*x)^m/(b - q + 2*c*x^n), x], x] - Dist[(2*c)/q, Int[(d*x)^m/(b + q + 2*c*x^n), x], x]] /; FreeQ[{a, b, c, d, m, n}, x] && EqQ[n2, 2*n] && NeQ[b^2 - 4*a*c, 0]
```

Rule 1384

```
Int[((d_.)*(x_))^(m_.)*((a_) + (c_.)*(x_)^(n2_.) + (b_.)*(x_)^(n_))^(p_), x
_Symbol] := -Simp[((d*x)^(m + 1)*(b^2 - 2*a*c + b*c*x^n)*(a + b*x^n + c*x^(
2*n))^(p + 1))/(a*d*n*(p + 1)*(b^2 - 4*a*c)), x] + Dist[1/(a*n*(p + 1)*(b^2
- 4*a*c)), Int[(d*x)^m*(a + b*x^n + c*x^(2*n))^(p + 1)*Simp[b^2*(n*(p + 1)
+ m + 1) - 2*a*c*(m + 2*n*(p + 1) + 1) + b*c*(2*n*p + 3*n + m + 1)*x^n, x]
, x], x] /; FreeQ[{a, b, c, d, m, n}, x] && EqQ[n2, 2*n] && NeQ[b^2 - 4*a*c
, 0] && ILtQ[p + 1, 0]
```

Rule 1422

```
Int[((d_) + (e_.)*(x_)^(n_))/((a_) + (b_.)*(x_)^(n_) + (c_.)*(x_)^(n2_)), x
_Symbol] := With[{q = Rt[b^2 - 4*a*c, 2]}, Dist[e/2 + (2*c*d - b*e)/(2*q),
Int[1/(b/2 - q/2 + c*x^n), x], x] + Dist[e/2 - (2*c*d - b*e)/(2*q), Int[1/(
b/2 + q/2 + c*x^n), x], x]] /; FreeQ[{a, b, c, d, e, n}, x] && EqQ[n2, 2*n]
&& NeQ[b^2 - 4*a*c, 0] && NeQ[c*d^2 - b*d*e + a*e^2, 0] && (PosQ[b^2 - 4*a
*c] || !IGtQ[n/2, 0])
```

Rule 1560

```
Int[((f_.)*(x_))^(m_.)*((a_) + (c_.)*(x_)^(n2_.) + (b_.)*(x_)^(n_))^(p_.)*(
(d_) + (e_.)*(x_)^(n_))^(q_.), x_Symbol] := Int[ExpandIntegrand[(f*x)^m*(d
+ e*x^n)^q*(a + b*x^n + c*x^(2*n))^p, x], x] /; FreeQ[{a, b, c, d, e, f, m,
n, p, q}, x] && EqQ[n2, 2*n] && NeQ[b^2 - 4*a*c, 0] && (IGtQ[p, 0] || IGtQ
[q, 0])
```

Rule 1796

```
Int[(Pq_)*((a_) + (b_.)*(x_)^(n_.) + (c_.)*(x_)^(n2_.))^(p_), x_Symbol] :=
Int[ExpandIntegrand[Pq*(a + b*x^n + c*x^(2*n))^p, x], x] /; FreeQ[{a, b, c,
n}, x] && EqQ[n2, 2*n] && PolyQ[Pq, x] && ILtQ[p, -1]
```

Rubi steps



$$\begin{aligned}
\int \frac{d + ex + fx^2 + gx^3}{(a + bx^n + cx^{2n})^2} dx &= \int \left( \frac{d}{(a + bx^n + cx^{2n})^2} + \frac{ex}{(a + bx^n + cx^{2n})^2} + \frac{fx^2}{(a + bx^n + cx^{2n})^2} + \frac{gx^3}{(a + bx^n + cx^{2n})^2} \right) dx \\
&= d \int \frac{1}{(a + bx^n + cx^{2n})^2} dx + e \int \frac{x}{(a + bx^n + cx^{2n})^2} dx + f \int \frac{x^2}{(a + bx^n + cx^{2n})^2} dx + g \int \frac{x^3}{(a + bx^n + cx^{2n})^2} dx \\
&= \frac{dx(b^2 - 2ac + bcx^n)}{a(b^2 - 4ac)n(a + bx^n + cx^{2n})} + \frac{ex^2(b^2 - 2ac + bcx^n)}{a(b^2 - 4ac)n(a + bx^n + cx^{2n})} + \frac{fx^3(b^2 - 2ac + bcx^n)}{a(b^2 - 4ac)n(a + bx^n + cx^{2n})} + \frac{gx^4(b^2 - 2ac + bcx^n)}{a(b^2 - 4ac)n(a + bx^n + cx^{2n})} \\
&= \frac{dx(b^2 - 2ac + bcx^n)}{a(b^2 - 4ac)n(a + bx^n + cx^{2n})} + \frac{ex^2(b^2 - 2ac + bcx^n)}{a(b^2 - 4ac)n(a + bx^n + cx^{2n})} + \frac{fx^3(b^2 - 2ac + bcx^n)}{a(b^2 - 4ac)n(a + bx^n + cx^{2n})} + \frac{gx^4(b^2 - 2ac + bcx^n)}{a(b^2 - 4ac)n(a + bx^n + cx^{2n})} \\
&= \frac{dx(b^2 - 2ac + bcx^n)}{a(b^2 - 4ac)n(a + bx^n + cx^{2n})} + \frac{ex^2(b^2 - 2ac + bcx^n)}{a(b^2 - 4ac)n(a + bx^n + cx^{2n})} + \frac{fx^3(b^2 - 2ac + bcx^n)}{a(b^2 - 4ac)n(a + bx^n + cx^{2n})} + \frac{gx^4(b^2 - 2ac + bcx^n)}{a(b^2 - 4ac)n(a + bx^n + cx^{2n})} \\
&= \frac{dx(b^2 - 2ac + bcx^n)}{a(b^2 - 4ac)n(a + bx^n + cx^{2n})} + \frac{ex^2(b^2 - 2ac + bcx^n)}{a(b^2 - 4ac)n(a + bx^n + cx^{2n})} + \frac{fx^3(b^2 - 2ac + bcx^n)}{a(b^2 - 4ac)n(a + bx^n + cx^{2n})} + \frac{gx^4(b^2 - 2ac + bcx^n)}{a(b^2 - 4ac)n(a + bx^n + cx^{2n})} \\
&= \frac{dx(b^2 - 2ac + bcx^n)}{a(b^2 - 4ac)n(a + bx^n + cx^{2n})} + \frac{ex^2(b^2 - 2ac + bcx^n)}{a(b^2 - 4ac)n(a + bx^n + cx^{2n})} + \frac{fx^3(b^2 - 2ac + bcx^n)}{a(b^2 - 4ac)n(a + bx^n + cx^{2n})} + \frac{gx^4(b^2 - 2ac + bcx^n)}{a(b^2 - 4ac)n(a + bx^n + cx^{2n})}
\end{aligned}$$

**Mathematica [B]** time = 6.62, size = 8737, normalized size = 5.28

Result too large to show

Warning: Unable to verify antiderivative.

[In] Integrate[(d + e\*x + f\*x^2 + g\*x^3)/(a + b\*x^n + c\*x^(2\*n))^2,x]

[Out] Result too large to show

**fricas [F]** time = 0.59, size = 0, normalized size = 0.00

$$\text{integral}\left(\frac{gx^3 + fx^2 + ex + d}{c^2x^{4n} + b^2x^{2n} + 2abx^n + a^2 + 2(bcx^n + ac)x^{2n}}, x\right)$$

Verification of antiderivative is not currently implemented for this CAS.

[In] integrate((g\*x^3+f\*x^2+e\*x+d)/(a+b\*x^n+c\*x^(2\*n))^2,x, algorithm="fricas")

[Out] integral((g\*x^3 + f\*x^2 + e\*x + d)/(c^2\*x^(4\*n) + b^2\*x^(2\*n) + 2\*a\*b\*x^n + a^2 + 2\*(b\*c\*x^n + a\*c)\*x^(2\*n)), x)

**giac [F]** time = 0.00, size = 0, normalized size = 0.00

$$\int \frac{gx^3 + fx^2 + ex + d}{(cx^{2n} + bx^n + a)^2} dx$$

Verification of antiderivative is not currently implemented for this CAS.

[In] integrate((g\*x^3+f\*x^2+e\*x+d)/(a+b\*x^n+c\*x^(2\*n))^2,x, algorithm="giac")

[Out] integrate((g\*x^3 + f\*x^2 + e\*x + d)/(c\*x^(2\*n) + b\*x^n + a)^2, x)

**maple** [F] time = 0.09, size = 0, normalized size = 0.00

$$\int \frac{g x^3 + f x^2 + e x + d}{(b x^n + c x^{2n} + a)^2} dx$$

Verification of antiderivative is not currently implemented for this CAS.

[In] int((g\*x^3+f\*x^2+e\*x+d)/(b\*x^n+c\*x^(2\*n)+a)^2,x)

[Out] int((g\*x^3+f\*x^2+e\*x+d)/(b\*x^n+c\*x^(2\*n)+a)^2,x)

**maxima** [F] time = 0.00, size = 0, normalized size = 0.00

$$\frac{(b^2g - 2acg)x^4 + (b^2f - 2acf)x^3 + (b^2e - 2ace)x^2 + (bcgx^4 + bcfx^3 + bcex^2 + bcdx)x^n + (b^2d - 2acd)x}{a^2b^2n - 4a^3cn + (ab^2cn - 4a^2c^2n)x^{2n} + (ab^3n - 4a^2bcn)x^n} \int 2$$

Verification of antiderivative is not currently implemented for this CAS.

[In] integrate((g\*x^3+f\*x^2+e\*x+d)/(a+b\*x^n+c\*x^(2\*n))^2,x, algorithm="maxima")

[Out] ((b^2\*g - 2\*a\*c\*g)\*x^4 + (b^2\*f - 2\*a\*c\*f)\*x^3 + (b^2\*e - 2\*a\*c\*e)\*x^2 + (b\*c\*g\*x^4 + b\*c\*f\*x^3 + b\*c\*e\*x^2 + b\*c\*d\*x)\*x^n + (b^2\*d - 2\*a\*c\*d)\*x)/(a^2\*b^2\*n - 4\*a^3\*c\*n + (a\*b^2\*c\*n - 4\*a^2\*c^2\*n)\*x^(2\*n) + (a\*b^3\*n - 4\*a^2\*b\*c\*n)\*x^n) - integrate((2\*a\*c\*d\*(2\*n - 1) - b^2\*d\*(n - 1) + (4\*a\*c\*g\*(n - 2) - b^2\*g\*(n - 4))\*x^3 + (2\*a\*c\*f\*(2\*n - 3) - b^2\*f\*(n - 3))\*x^2 - (b\*c\*g\*(n - 4)\*x^3 + b\*c\*f\*(n - 3)\*x^2 + b\*c\*e\*(n - 2)\*x + b\*c\*d\*(n - 1))\*x^n + (4\*a\*c\*e\*(n - 1) - b^2\*e\*(n - 2))\*x)/(a^2\*b^2\*n - 4\*a^3\*c\*n + (a\*b^2\*c\*n - 4\*a^2\*c^2\*n)\*x^(2\*n) + (a\*b^3\*n - 4\*a^2\*b\*c\*n)\*x^n), x)

**mupad** [F] time = 0.00, size = -1, normalized size = -0.00

$$\int \frac{g x^3 + f x^2 + e x + d}{(a + b x^n + c x^{2n})^2} dx$$

Verification of antiderivative is not currently implemented for this CAS.

[In] int((d + e\*x + f\*x^2 + g\*x^3)/(a + b\*x^n + c\*x^(2\*n))^2,x)

[Out] int((d + e\*x + f\*x^2 + g\*x^3)/(a + b\*x^n + c\*x^(2\*n))^2, x)

**sympy** [F(-1)] time = 0.00, size = 0, normalized size = 0.00

Timed out

Verification of antiderivative is not currently implemented for this CAS.

[In] integrate((g\*x\*\*3+f\*x\*\*2+e\*x+d)/(a+b\*x\*\*n+c\*x\*\*(2\*n))\*\*2,x)

[Out] Timed out

$$3.10 \quad \int \frac{-ahx^{-1+\frac{n}{2}} + cfx^{-1+n} + cgx^{-1+2n} + chx^{-1+\frac{5n}{2}}}{(a+bx^n+cx^{2n})^{3/2}} dx$$

**Optimal.** Leaf size=75

$$\frac{2 \left( hx^{n/2} (b^2 - 4ac) + c(bf - 2ag) + cx^n(2cf - bg) \right)}{n (b^2 - 4ac) \sqrt{a + bx^n + cx^{2n}}}$$

[Out]  $-2*(c*(-2*a*g+b*f))+(-4*a*c+b^2)*h*x^{(1/2*n)}+c*(-b*g+2*c*f)*x^n)/(-4*a*c+b^2)/n/(a+b*x^n+c*x^{(2*n)})^{(1/2)}$

**Rubi [A]** time = 0.53, antiderivative size = 75, normalized size of antiderivative = 1.00, number of steps used = 2, number of rules used = 2, integrand size = 63,  $\frac{\text{number of rules}}{\text{integrand size}} = 0.032$ , Rules used = {6741, 1753}

$$\frac{2 \left( hx^{n/2} (b^2 - 4ac) + c(bf - 2ag) + cx^n(2cf - bg) \right)}{n (b^2 - 4ac) \sqrt{a + bx^n + cx^{2n}}}$$

Antiderivative was successfully verified.

[In]  $\text{Int}[(-a*h*x^{(-1 + n/2)} + c*f*x^{(-1 + n)} + c*g*x^{(-1 + 2*n)} + c*h*x^{(-1 + (5*n)/2)})/(a + b*x^n + c*x^{(2*n)})^{(3/2)}, x]$

[Out]  $(-2*(c*(b*f - 2*a*g) + (b^2 - 4*a*c)*h*x^{(n/2)} + c*(2*c*f - b*g)*x^n))/((b^2 - 4*a*c)*n*\text{Sqrt}[a + b*x^n + c*x^{(2*n)}])$

**Rule 1753**

$\text{Int}[\frac{(x_)^{(m_.)}*((e_) + (f_.)*(x_)^{(q_.)} + (g_.)*(x_)^{(r_.)} + (h_.)*(x_)^{(s_.)})}{(a_) + (b_.)*(x_)^{(n_.)} + (c_.)*(x_)^{(n2_.)}}, x\_Symbol] :> -\text{Simp}[\frac{2*c*(b*f - 2*a*g) + 2*h*(b^2 - 4*a*c)*x^{(n/2)} + 2*c*(2*c*f - b*g)*x^n}{(c*n*(b^2 - 4*a*c)*\text{Sqrt}[a + b*x^n + c*x^{(2*n)}])}, x] /; \text{FreeQ}\{a, b, c, e, f, g, h, m, n\}, x\} \&\& \text{EqQ}[n2, 2*n] \&\& \text{EqQ}[q, n/2] \&\& \text{EqQ}[r, (3*n)/2] \&\& \text{EqQ}[s, 2*n] \&\& \text{NeQ}[b^2 - 4*a*c, 0] \&\& \text{EqQ}[2*m - n + 2, 0] \&\& \text{EqQ}[c*e + a*h, 0]$

**Rule 6741**

$\text{Int}[u_, x\_Symbol] :> \text{With}\{v = \text{NormalizeIntegrand}[u, x]\}, \text{Int}[v, x] /; v \neq u]$

**Rubi steps**

$$\int \frac{-ahx^{-1+\frac{n}{2}} + cfx^{-1+n} + cgx^{-1+2n} + chx^{-1+\frac{5n}{2}}}{(a+bx^n+cx^{2n})^{3/2}} dx = \int \frac{x^{-1+\frac{n}{2}} (-ah + cfx^{n/2} + cgx^{3n/2} + chx^{2n})}{(a+bx^n+cx^{2n})^{3/2}} dx = -\frac{2 \left( c(bf - 2ag) + (b^2 - 4ac)hx^{n/2} + c(2cf - bg)x^n \right)}{(b^2 - 4ac)n\sqrt{a + bx^n + cx^{2n}}}$$

**Mathematica [F]** time = 0.00, size = 0, normalized size = 0.00

\$Aborted

Verification is Not applicable to the result.

[In] Integrate[(-a\*h\*x^(-1 + n/2)) + c\*f\*x^(-1 + n) + c\*g\*x^(-1 + 2\*n) + c\*h\*x^(-1 + (5\*n)/2)]/(a + b\*x^n + c\*x^(2\*n))^(3/2), x]

[Out] \$Aborted

**fricas** [A] time = 0.76, size = 137, normalized size = 1.83

$$\frac{2\sqrt{cx^4x^{2n-4} + bx^2x^{n-2} + a}\left((2c^2f - bcg)x^2x^{n-2} + (b^2 - 4ac)hxx^{\frac{1}{2}n-1} + bcf - 2acg\right)}{(b^2c - 4ac^2)nx^4x^{2n-4} + (b^3 - 4abc)nx^2x^{n-2} + (ab^2 - 4a^2c)n}$$

Verification of antiderivative is not currently implemented for this CAS.

[In] integrate((-a\*h\*x^(-1+1/2\*n)+c\*f\*x^(-1+n)+c\*g\*x^(-1+2\*n)+c\*h\*x^(-1+5/2\*n))/(a+b\*x^n+c\*x^(2\*n))^(3/2), x, algorithm="fricas")

[Out] -2\*sqrt(c\*x^4\*x^(2\*n - 4) + b\*x^2\*x^(n - 2) + a)\*((2\*c^2\*f - b\*c\*g)\*x^2\*x^(n - 2) + (b^2 - 4\*a\*c)\*h\*x\*x^(1/2\*n - 1) + b\*c\*f - 2\*a\*c\*g)/((b^2\*c - 4\*a\*c^2)\*n\*x^4\*x^(2\*n - 4) + (b^3 - 4\*a\*b\*c)\*n\*x^2\*x^(n - 2) + (a\*b^2 - 4\*a^2\*c)\*n)

**giac** [F] time = 0.00, size = 0, normalized size = 0.00

$$\int \frac{chx^{\frac{5}{2}n-1} + cgx^{2n-1} + cf x^{n-1} - ahx^{\frac{1}{2}n-1}}{(cx^{2n} + bx^n + a)^{\frac{3}{2}}} dx$$

Verification of antiderivative is not currently implemented for this CAS.

[In] integrate((-a\*h\*x^(-1+1/2\*n)+c\*f\*x^(-1+n)+c\*g\*x^(-1+2\*n)+c\*h\*x^(-1+5/2\*n))/(a+b\*x^n+c\*x^(2\*n))^(3/2), x, algorithm="giac")

[Out] integrate((c\*h\*x^(5/2\*n - 1) + c\*g\*x^(2\*n - 1) + c\*f\*x^(n - 1) - a\*h\*x^(1/2\*n - 1))/(c\*x^(2\*n) + b\*x^n + a)^(3/2), x)

**maple** [F] time = 0.07, size = 0, normalized size = 0.00

$$\int \frac{-ahx^{\frac{n}{2}-1} + cf x^{n-1} + cgx^{2n-1} + chx^{\frac{5n}{2}-1}}{(bx^n + cx^{2n} + a)^{\frac{3}{2}}} dx$$

Verification of antiderivative is not currently implemented for this CAS.

[In] int((-a\*h\*x^(-1+1/2\*n)+c\*f\*x^(n-1)+c\*g\*x^(2\*n-1)+c\*h\*x^(-1+5/2\*n))/(b\*x^n+c\*x^(2\*n)+a)^(3/2), x)

[Out] int((-a\*h\*x^(-1+1/2\*n)+c\*f\*x^(n-1)+c\*g\*x^(2\*n-1)+c\*h\*x^(-1+5/2\*n))/(b\*x^n+c\*x^(2\*n)+a)^(3/2), x)

**maxima** [F] time = 0.00, size = 0, normalized size = 0.00

$$\int \frac{chx^{\frac{5}{2}n-1} + cgx^{2n-1} + cf x^{n-1} - ahx^{\frac{1}{2}n-1}}{(cx^{2n} + bx^n + a)^{\frac{3}{2}}} dx$$

Verification of antiderivative is not currently implemented for this CAS.

[In] integrate((-a\*h\*x^(-1+1/2\*n)+c\*f\*x^(-1+n)+c\*g\*x^(-1+2\*n)+c\*h\*x^(-1+5/2\*n))/(a+b\*x^n+c\*x^(2\*n))^(3/2), x, algorithm="maxima")

[Out] integrate((c\*h\*x^(5/2\*n - 1) + c\*g\*x^(2\*n - 1) + c\*f\*x^(n - 1) - a\*h\*x^(1/2\*n - 1))/(c\*x^(2\*n) + b\*x^n + a)^(3/2), x)

mupad [F] time = 0.00, size = -1, normalized size = -0.01

$$\int \frac{c g x^{2n-1} - a h x^{\frac{n}{2}-1} + c h x^{\frac{5n}{2}-1} + c f x^{n-1}}{(a + b x^n + c x^{2n})^{3/2}} dx$$

Verification of antiderivative is not currently implemented for this CAS.

[In] int((c\*g\*x^(2\*n - 1) - a\*h\*x^(n/2 - 1) + c\*h\*x^((5\*n)/2 - 1) + c\*f\*x^(n - 1)))/(a + b\*x^n + c\*x^(2\*n))^(3/2), x)

[Out] int((c\*g\*x^(2\*n - 1) - a\*h\*x^(n/2 - 1) + c\*h\*x^((5\*n)/2 - 1) + c\*f\*x^(n - 1)))/(a + b\*x^n + c\*x^(2\*n))^(3/2), x)

sympy [F(-1)] time = 0.00, size = 0, normalized size = 0.00

Timed out

Verification of antiderivative is not currently implemented for this CAS.

[In] integrate((-a\*h\*x\*\*(-1+1/2\*n)+c\*f\*x\*\*(-1+n)+c\*g\*x\*\*(-1+2\*n)+c\*h\*x\*\*(-1+5/2\*n))/(a+b\*x\*\*n+c\*x\*\*(2\*n))\*\*(3/2), x)

[Out] Timed out

### 3.11 $\int (a + bx^n + cx^{2n})^p (a + b(1 + n + np)x^n + c(1 + 2n(1 +$

**Optimal.** Leaf size=20

$$x(a + bx^n + cx^{2n})^{p+1}$$

[Out] x\*(a+b\*x^n+c\*x^(2\*n))^(1+p)

**Rubi [A]** time = 0.02, antiderivative size = 20, normalized size of antiderivative = 1.00, number of steps used = 1, number of rules used = 1, integrand size = 45,  $\frac{\text{number of rules}}{\text{integrand size}} = 0.022$ , Rules used = {1775}

$$x(a + bx^n + cx^{2n})^{p+1}$$

Antiderivative was successfully verified.

[In] Int[(a + b\*x^n + c\*x^(2\*n))^p\*(a + b\*(1 + n + n\*p)\*x^n + c\*(1 + 2\*n\*(1 + p))\*x^(2\*n)), x]

[Out] x\*(a + b\*x^n + c\*x^(2\*n))^(1 + p)

Rule 1775

Int[((a\_) + (b\_.)\*(x\_)^(n\_.) + (c\_.)\*(x\_)^(n2\_.))^p\*((d\_) + (e\_.)\*(x\_)^(n\_.) + (f\_.)\*(x\_)^(n2\_.)), x\_Symbol] :> Simp[(d\*x\*(a + b\*x^n + c\*x^(2\*n))^(p + 1))/a, x] /; FreeQ[{a, b, c, d, e, f, n, p}, x] && EqQ[n2, 2\*n] && EqQ[a\*e - b\*d\*(n\*(p + 1) + 1), 0] && EqQ[a\*f - c\*d\*(2\*n\*(p + 1) + 1), 0]

Rubi steps

$$\int (a + bx^n + cx^{2n})^p (a + b(1 + n + np)x^n + c(1 + 2n(1 + p))x^{2n}) dx = x(a + bx^n + cx^{2n})^{1+p}$$

**Mathematica [A]** time = 0.33, size = 19, normalized size = 0.95

$$x(a + x^n(b + cx^n))^{p+1}$$

Antiderivative was successfully verified.

[In] Integrate[(a + b\*x^n + c\*x^(2\*n))^p\*(a + b\*(1 + n + n\*p)\*x^n + c\*(1 + 2\*n\*(1 + p))\*x^(2\*n)), x]

[Out] x\*(a + x^n\*(b + c\*x^n))^(1 + p)

**fricas [A]** time = 0.82, size = 35, normalized size = 1.75

$$(cxx^{2n} + bxx^n + ax)(cx^{2n} + bx^n + a)^p$$

Verification of antiderivative is not currently implemented for this CAS.

[In] integrate((a+b\*x^n+c\*x^(2\*n))^p\*(a+b\*(n\*p+n+1)\*x^n+c\*(1+2\*n\*(1+p))\*x^(2\*n)), x, algorithm="fricas")

[Out] (c\*x\*x^(2\*n) + b\*x\*x^n + a\*x)\*(c\*x^(2\*n) + b\*x^n + a)^p

**giac [B]** time = 0.84, size = 66, normalized size = 3.30

$$(cx^{2n} + bx^n + a)^p cxx^{2n} + (cx^{2n} + bx^n + a)^p bxx^n + (cx^{2n} + bx^n + a)^p ax$$

Verification of antiderivative is not currently implemented for this CAS.

```
[In] integrate((a+b*x^n+c*x^(2*n))^p*(a+b*(n*p+n+1)*x^n+c*(1+2*n*(1+p))*x^(2*n)),x, algorithm="giac")
```

```
[Out] (c*x^(2*n) + b*x^n + a)^p*c*x*x^(2*n) + (c*x^(2*n) + b*x^n + a)^p*b*x*x^n + (c*x^(2*n) + b*x^n + a)^p*a*x
```

**maple** [A] time = 0.05, size = 33, normalized size = 1.65

$$(bx^n + cx^{2n} + a)x(bx^n + cx^{2n} + a)^p$$

Verification of antiderivative is not currently implemented for this CAS.

```
[In] int((b*x^n+c*x^(2*n)+a)^p*(a+b*(n*p+n+1)*x^n+c*(1+2*(p+1)*n)*x^(2*n)),x)
```

```
[Out] x*(a+b*x^n+c*(x^n)^2)*(a+b*x^n+c*(x^n)^2)^p
```

**maxima** [A] time = 1.22, size = 35, normalized size = 1.75

$$(cxx^{2n} + bxx^n + ax)(cx^{2n} + bx^n + a)^p$$

Verification of antiderivative is not currently implemented for this CAS.

```
[In] integrate((a+b*x^n+c*x^(2*n))^p*(a+b*(n*p+n+1)*x^n+c*(1+2*n*(1+p))*x^(2*n)),x, algorithm="maxima")
```

```
[Out] (c*x*x^(2*n) + b*x*x^n + a*x)*(c*x^(2*n) + b*x^n + a)^p
```

**mupad** [B] time = 2.18, size = 35, normalized size = 1.75

$$(a + bx^n + cx^{2n})^p (ax + bxx^n + cxx^{2n})$$

Verification of antiderivative is not currently implemented for this CAS.

```
[In] int((a + b*x^n + c*x^(2*n))^p*(a + b*x^n*(n + n*p + 1) + c*x^(2*n)*(2*n*(p + 1) + 1)),x)
```

```
[Out] (a + b*x^n + c*x^(2*n))^p*(a*x + b*x*x^n + c*x*x^(2*n))
```

**sympy** [B] time = 50.33, size = 63, normalized size = 3.15

$$ax(a + bx^n + cx^{2n})^p + bxx^n(a + bx^n + cx^{2n})^p + cxx^{2n}(a + bx^n + cx^{2n})^p$$

Verification of antiderivative is not currently implemented for this CAS.

```
[In] integrate((a+b*x**n+c*x**(2*n))**p*(a+b*(n*p+n+1)*x**n+c*(1+2*n*(1+p))*x**(2*n)),x)
```

```
[Out] a*x*(a + b*x**n + c*x**(2*n))**p + b*x*x**n*(a + b*x**n + c*x**(2*n))**p + c*x*x**(2*n)*(a + b*x**n + c*x**(2*n))**p
```

$$3.12 \quad \int \frac{x^{-1+\frac{n}{4}}(-ah+cfx^{n/4}+cgx^{3n/4}+chx^n)}{(a+cx^n)^{3/2}} dx$$

**Optimal.** Leaf size=45

$$\frac{2(ag + 2ahx^{n/4} - cfx^{n/2})}{an\sqrt{a + cx^n}}$$

[Out]  $-2*(a*g+2*a*h*x^{(1/4*n)}-c*f*x^{(1/2*n)})/a/n/(a+c*x^n)^{(1/2)}$

**Rubi [A]** time = 0.08, antiderivative size = 45, normalized size of antiderivative = 1.00, number of steps used = 1, number of rules used = 1, integrand size = 52,  $\frac{\text{number of rules}}{\text{integrand size}} = 0.019$ , Rules used = {1816}

$$\frac{2(ag + 2ahx^{n/4} - cfx^{n/2})}{an\sqrt{a + cx^n}}$$

Antiderivative was successfully verified.

[In] Int[(x^(-1 + n/4)\*(-(a\*h) + c\*f\*x^(n/4) + c\*g\*x^((3\*n)/4) + c\*h\*x^n))/(a + c\*x^n)^(3/2), x]

[Out]  $(-2*(a*g + 2*a*h*x^{(n/4)} - c*f*x^{(n/2)}))/(a*n*\text{Sqrt}[a + c*x^n])$

**Rule 1816**

Int[((x\_)^(m\_)\*((e\_) + (h\_)\*(x\_)^(n\_) + (f\_)\*(x\_)^(q\_) + (g\_)\*(x\_)^(r\_)))/((a\_) + (c\_)\*(x\_)^(n\_))^(3/2), x\_Symbol] := -Simp[(2\*a\*g + 4\*a\*h\*x^(n/4) - 2\*c\*f\*x^(n/2))/(a\*c\*n\*Sqrt[a + c\*x^n]), x] /; FreeQ[{a, c, e, f, g, h, m, n}, x] && EqQ[q, n/4] && EqQ[r, (3\*n)/4] && EqQ[4\*m - n + 4, 0] && EqQ[c\*e + a\*h, 0]

**Rubi steps**

$$\int \frac{x^{-1+\frac{n}{4}}(-ah+cfx^{n/4}+cgx^{3n/4}+chx^n)}{(a+cx^n)^{3/2}} dx = -\frac{2(ag + 2ahx^{n/4} - cfx^{n/2})}{an\sqrt{a + cx^n}}$$

**Mathematica [A]** time = 0.21, size = 45, normalized size = 1.00

$$\frac{2cfx^{n/2} - 2a(g + 2hx^{n/4})}{an\sqrt{a + cx^n}}$$

Antiderivative was successfully verified.

[In] Integrate[(x^(-1 + n/4)\*(-(a\*h) + c\*f\*x^(n/4) + c\*g\*x^((3\*n)/4) + c\*h\*x^n))/(a + c\*x^n)^(3/2), x]

[Out]  $(2*c*f*x^{(n/2)} - 2*a*(g + 2*h*x^{(n/4)}))/(a*n*\text{Sqrt}[a + c*x^n])$

**fricas [A]** time = 0.64, size = 48, normalized size = 1.07

$$\frac{2\left(cf x^{\frac{1}{2}n} - 2ahx^{\frac{1}{4}n} - ag\right)\sqrt{cx^n + a}}{acnx^n + a^2n}$$

Verification of antiderivative is not currently implemented for this CAS.



[In] integrate(x<sup>(-1+1/4\*n)</sup>\*(-a\*h+c\*f\*x<sup>(1/4\*n)</sup>+c\*g\*x<sup>(3/4\*n)</sup>+c\*h\*x<sup>n</sup>)/(a+c\*x<sup>n</sup>)<sup>(3/2)</sup>,x, algorithm="fricas")

[Out] 2\*(c\*f\*x<sup>(1/2\*n)</sup> - 2\*a\*h\*x<sup>(1/4\*n)</sup> - a\*g)\*sqrt(c\*x<sup>n</sup> + a)/(a\*c\*n\*x<sup>n</sup> + a<sup>2</sup>\*n)

**giac** [A] time = 35.01, size = 39, normalized size = 0.87

$$\frac{2 \left( \left( \frac{cf(x^n)^{\frac{1}{4}}}{a} - 2h \right) (x^n)^{\frac{1}{4}} - g \right)}{\sqrt{cx^n + a} n}$$

Verification of antiderivative is not currently implemented for this CAS.

[In] integrate(x<sup>(-1+1/4\*n)</sup>\*(-a\*h+c\*f\*x<sup>(1/4\*n)</sup>+c\*g\*x<sup>(3/4\*n)</sup>+c\*h\*x<sup>n</sup>)/(a+c\*x<sup>n</sup>)<sup>(3/2)</sup>,x, algorithm="giac")

[Out] 2\*((c\*f\*(x<sup>n</sup>)<sup>(1/4)</sup>/a - 2\*h)\*(x<sup>n</sup>)<sup>(1/4)</sup> - g)/(sqrt(c\*x<sup>n</sup> + a)\*n)

**maple** [F] time = 0.10, size = 0, normalized size = 0.00

$$\int \frac{\left( cf x^{\frac{n}{4}} + cg x^{\frac{3n}{4}} + ch x^n - ah \right) x^{\frac{n}{4}-1}}{(cx^n + a)^{\frac{3}{2}}} dx$$

Verification of antiderivative is not currently implemented for this CAS.

[In] int(x<sup>(-1+1/4\*n)</sup>\*(-a\*h+c\*f\*x<sup>(1/4\*n)</sup>+c\*g\*x<sup>(3/4\*n)</sup>+c\*h\*x<sup>n</sup>)/(a+c\*x<sup>n</sup>)<sup>(3/2)</sup>,x)

[Out] int(x<sup>(-1+1/4\*n)</sup>\*(-a\*h+c\*f\*x<sup>(1/4\*n)</sup>+c\*g\*x<sup>(3/4\*n)</sup>+c\*h\*x<sup>n</sup>)/(a+c\*x<sup>n</sup>)<sup>(3/2)</sup>,x)

**maxima** [F] time = 0.00, size = 0, normalized size = 0.00

$$\int \frac{\left( cg x^{\frac{3}{4}n} + cf x^{\frac{1}{4}n} + ch x^n - ah \right) x^{\frac{1}{4}n-1}}{(cx^n + a)^{\frac{3}{2}}} dx$$

Verification of antiderivative is not currently implemented for this CAS.

[In] integrate(x<sup>(-1+1/4\*n)</sup>\*(-a\*h+c\*f\*x<sup>(1/4\*n)</sup>+c\*g\*x<sup>(3/4\*n)</sup>+c\*h\*x<sup>n</sup>)/(a+c\*x<sup>n</sup>)<sup>(3/2)</sup>,x, algorithm="maxima")

[Out] integrate((c\*g\*x<sup>(3/4\*n)</sup> + c\*f\*x<sup>(1/4\*n)</sup> + c\*h\*x<sup>n</sup> - a\*h)\*x<sup>(1/4\*n - 1)</sup>/(c\*x<sup>n</sup> + a)<sup>(3/2)</sup>, x)

**mupad** [B] time = 2.56, size = 39, normalized size = 0.87

$$\frac{2 \left( ag - cf x^{n/2} + 2ah x^{n/4} \right)}{an \sqrt{a + cx^n}}$$

Verification of antiderivative is not currently implemented for this CAS.

[In] int((x<sup>(n/4 - 1)</sup>\*(c\*h\*x<sup>n</sup> - a\*h + c\*f\*x<sup>(n/4)</sup> + c\*g\*x<sup>((3\*n)/4)</sup>))/(a + c\*x<sup>n</sup>)<sup>(3/2)</sup>,x)

[Out] -(2\*(a\*g - c\*f\*x<sup>(n/2)</sup> + 2\*a\*h\*x<sup>(n/4)</sup>))/(a\*n\*(a + c\*x<sup>n</sup>)<sup>(1/2)</sup>)

**sympy** [F(-1)] time = 0.00, size = 0, normalized size = 0.00

Timed out

Verification of antiderivative is not currently implemented for this CAS.

```
[In] integrate(x**(-1+1/4*n)*(-a*h+c*f*x**(1/4*n)+c*g*x**(3/4*n)+c*h*x**n)/(a+c*x**n)**(3/2),x)
```

```
[Out] Timed out
```

$$3.13 \quad \int \frac{(dx)^{-1+\frac{n}{4}}(-ah+cfx^{n/4}+cgx^{3n/4}+chx^n)}{(a+cx^n)^{3/2}} dx$$

Optimal. Leaf size=65

$$-\frac{2x^{1-\frac{n}{4}}(dx)^{\frac{n-4}{4}}(ag+2ahx^{n/4}-cfx^{n/2})}{an\sqrt{a+cx^n}}$$

[Out]  $-2*x^{(1-1/4*n)}*(d*x)^{(-1+1/4*n)}*(a*g+2*a*h*x^{(1/4*n)}-c*f*x^{(1/2*n)})/a/n/(a+c*x^n)^{(1/2)}$

Rubi [A] time = 0.16, antiderivative size = 65, normalized size of antiderivative = 1.00, number of steps used = 2, number of rules used = 2, integrand size = 54,  $\frac{\text{number of rules}}{\text{integrand size}} = 0.037$ , Rules used = {1817, 1816}

$$-\frac{2x^{1-\frac{n}{4}}(dx)^{\frac{n-4}{4}}(ag+2ahx^{n/4}-cfx^{n/2})}{an\sqrt{a+cx^n}}$$

Antiderivative was successfully verified.

[In] Int[((d\*x)^(-1 + n/4)\*(-(a\*h) + c\*f\*x^(n/4) + c\*g\*x^((3\*n)/4) + c\*h\*x^n))/(a + c\*x^n)^(3/2), x]

[Out]  $(-2*x^{(1 - n/4)}*(d*x)^{((-4 + n)/4)}*(a*g + 2*a*h*x^{(n/4)} - c*f*x^{(n/2)}))/(a*n*\text{Sqrt}[a + c*x^n])$

Rule 1816

Int[((x\_)^(m\_))\*((e\_) + (h\_)\*(x\_)^(n\_) + (f\_)\*(x\_)^(q\_) + (g\_)\*(x\_)^(r\_)))/((a\_) + (c\_)\*(x\_)^(n\_))^(3/2), x\_Symbol] :> -Simp[(2\*a\*g + 4\*a\*h\*x^(n/4) - 2\*c\*f\*x^(n/2))/(a\*c\*n\*Sqrt[a + c\*x^n]), x] /; FreeQ[{a, c, e, f, g, h, m, n}, x] && EqQ[q, n/4] && EqQ[r, (3\*n)/4] && EqQ[4\*m - n + 4, 0] && EqQ[c\*e + a\*h, 0]

Rule 1817

Int((((d\_)\*(x\_))^(m\_))\*((e\_) + (h\_)\*(x\_)^(n\_) + (f\_)\*(x\_)^(q\_) + (g\_)\*(x\_)^(r\_)))/((a\_) + (c\_)\*(x\_)^(n\_))^(3/2), x\_Symbol] :> Dist[(d\*x)^m/x^m, Int[(x^m\*(e + f\*x^(n/4) + g\*x^((3\*n)/4) + h\*x^n))/(a + c\*x^n)^(3/2), x], x] /; FreeQ[{a, c, d, e, f, g, h, m, n}, x] && EqQ[4\*m - n + 4, 0] && EqQ[q, n/4] && EqQ[r, (3\*n)/4] && EqQ[c\*e + a\*h, 0]

Rubi steps

$$\begin{aligned} \int \frac{(dx)^{-1+\frac{n}{4}}(-ah+cfx^{n/4}+cgx^{3n/4}+chx^n)}{(a+cx^n)^{3/2}} dx &= \left(x^{1-\frac{n}{4}}(dx)^{-1+\frac{n}{4}}\right) \int \frac{x^{-1+\frac{n}{4}}(-ah+cfx^{n/4}+cgx^{3n/4}+chx^n)}{(a+cx^n)^{3/2}} dx \\ &= -\frac{2x^{1-\frac{n}{4}}(dx)^{\frac{1}{4}(-4+n)}(ag+2ahx^{n/4}-cfx^{n/2})}{an\sqrt{a+cx^n}} \end{aligned}$$

Mathematica [A] time = 0.14, size = 64, normalized size = 0.98

$$\frac{2x^{-n/4}(dx)^{n/4}(cfx^{n/2}-a(g+2hx^{n/4}))}{adn\sqrt{a+cx^n}}$$

Antiderivative was successfully verified.

[In] Integrate[((d\*x)^(-1 + n/4)\*(-(a\*h) + c\*f\*x^(n/4) + c\*g\*x^((3\*n)/4) + c\*h\*x^n))/(a + c\*x^n)^(3/2),x]

[Out] (2\*(d\*x)^(n/4)\*(c\*f\*x^(n/2) - a\*(g + 2\*h\*x^(n/4)))/(a\*d\*n\*x^(n/4)\*Sqrt[a + c\*x^n])

**fricas** [A] time = 0.46, size = 69, normalized size = 1.06

$$\frac{2 \left( cd^{\frac{1}{4}n-1} f x^{\frac{1}{2}n} - 2 ad^{\frac{1}{4}n-1} h x^{\frac{1}{4}n} - ad^{\frac{1}{4}n-1} g \right) \sqrt{cx^n + a}}{acnx^n + a^2n}$$

Verification of antiderivative is not currently implemented for this CAS.

[In] integrate((d\*x)^(-1+1/4\*n)\*(-a\*h+c\*f\*x^(1/4\*n)+c\*g\*x^(3/4\*n)+c\*h\*x^n)/(a+c\*x^n)^(3/2),x, algorithm="fricas")

[Out] 2\*(c\*d^(1/4\*n - 1)\*f\*x^(1/2\*n) - 2\*a\*d^(1/4\*n - 1)\*h\*x^(1/4\*n) - a\*d^(1/4\*n - 1)\*g)\*sqrt(c\*x^n + a)/(a\*c\*n\*x^n + a^2\*n)

**giac** [F] time = 0.00, size = 0, normalized size = 0.00

$$\int \frac{\left( cgx^{\frac{3}{4}n} + cf x^{\frac{1}{4}n} + chx^n - ah \right) (dx)^{\frac{1}{4}n-1}}{(cx^n + a)^{\frac{3}{2}}} dx$$

Verification of antiderivative is not currently implemented for this CAS.

[In] integrate((d\*x)^(-1+1/4\*n)\*(-a\*h+c\*f\*x^(1/4\*n)+c\*g\*x^(3/4\*n)+c\*h\*x^n)/(a+c\*x^n)^(3/2),x, algorithm="giac")

[Out] integrate((c\*g\*x^(3/4\*n) + c\*f\*x^(1/4\*n) + c\*h\*x^n - a\*h)\*(d\*x)^(1/4\*n - 1)/(c\*x^n + a)^(3/2), x)

**maple** [F] time = 0.09, size = 0, normalized size = 0.00

$$\int \frac{\left( cf x^{\frac{n}{4}} + cg x^{\frac{3n}{4}} + ch x^n - ah \right) (dx)^{\frac{n}{4}-1}}{(c x^n + a)^{\frac{3}{2}}} dx$$

Verification of antiderivative is not currently implemented for this CAS.

[In] int((d\*x)^(1/4\*n-1)\*(c\*f\*x^(1/4\*n)+c\*g\*x^(3/4\*n)+c\*h\*x^n-a\*h)/(c\*x^n+a)^(3/2),x)

[Out] int((d\*x)^(1/4\*n-1)\*(c\*f\*x^(1/4\*n)+c\*g\*x^(3/4\*n)+c\*h\*x^n-a\*h)/(c\*x^n+a)^(3/2),x)

**maxima** [F] time = 0.00, size = 0, normalized size = 0.00

$$\int \frac{\left( cgx^{\frac{3}{4}n} + cf x^{\frac{1}{4}n} + chx^n - ah \right) (dx)^{\frac{1}{4}n-1}}{(cx^n + a)^{\frac{3}{2}}} dx$$

Verification of antiderivative is not currently implemented for this CAS.

[In] integrate((d\*x)^(-1+1/4\*n)\*(-a\*h+c\*f\*x^(1/4\*n)+c\*g\*x^(3/4\*n)+c\*h\*x^n)/(a+c\*x^n)^(3/2),x, algorithm="maxima")

[Out] integrate((c\*g\*x^(3/4\*n) + c\*f\*x^(1/4\*n) + c\*h\*x^n - a\*h)\*(d\*x)^(1/4\*n - 1)/(c\*x^n + a)^(3/2), x)

**mupad** [F] time = 0.00, size = -1, normalized size = -0.02

$$\int \frac{(dx)^{\frac{n}{4}-1} \left( chx^n - ah + cf x^{n/4} + cg x^{\frac{3n}{4}} \right)}{(a + cx^n)^{3/2}} dx$$

Verification of antiderivative is not currently implemented for this CAS.

[In] int(((d\*x)^(n/4 - 1)\*(c\*h\*x^n - a\*h + c\*f\*x^(n/4) + c\*g\*x^((3\*n)/4)))/(a + c\*x^n)^(3/2), x)

[Out] int(((d\*x)^(n/4 - 1)\*(c\*h\*x^n - a\*h + c\*f\*x^(n/4) + c\*g\*x^((3\*n)/4)))/(a + c\*x^n)^(3/2), x)

**sympy** [F(-1)] time = 0.00, size = 0, normalized size = 0.00

Timed out

Verification of antiderivative is not currently implemented for this CAS.

[In] integrate((d\*x)\*\*(-1+1/4\*n)\*(-a\*h+c\*f\*x\*\*(1/4\*n)+c\*g\*x\*\*(3/4\*n)+c\*h\*x\*\*n)/(a+c\*x\*\*n)\*\*(3/2), x)

[Out] Timed out

$$3.14 \quad \int \frac{x^{-1+\frac{n}{2}}(-ah+cfx^{n/2}+cgx^{3n/2}+chx^{2n})}{(a+bx^n+cx^{2n})^{3/2}} dx$$

**Optimal.** Leaf size=75

$$\frac{2(hx^{n/2}(b^2-4ac)+c(bf-2ag)+cx^n(2cf-bg))}{n(b^2-4ac)\sqrt{a+bx^n+cx^{2n}}}$$

[Out]  $-2*(c*(-2*a*g+b*f))+(-4*a*c+b^2)*h*x^{(1/2*n)}+c*(-b*g+2*c*f)*x^n/(-4*a*c+b^2)/n/(a+b*x^n+c*x^{(2*n)})^{(1/2)}$

**Rubi [A]** time = 0.11, antiderivative size = 75, normalized size of antiderivative = 1.00, number of steps used = 1, number of rules used = 1, integrand size = 61,  $\frac{\text{number of rules}}{\text{integrand size}} = 0.016$ , Rules used = {1753}

$$\frac{2(hx^{n/2}(b^2-4ac)+c(bf-2ag)+cx^n(2cf-bg))}{n(b^2-4ac)\sqrt{a+bx^n+cx^{2n}}}$$

Antiderivative was successfully verified.

[In]  $\text{Int}[(x^{(-1+n/2)}*(-(a*h)+c*f*x^{(n/2)}+c*g*x^{((3*n)/2)}+c*h*x^{(2*n)}))/(a+b*x^n+c*x^{(2*n)})^{(3/2)},x]$

[Out]  $(-2*(c*(b*f-2*a*g)+(b^2-4*a*c)*h*x^{(n/2)}+c*(2*c*f-b*g)*x^n))/((b^2-4*a*c)*n*\text{Sqrt}[a+b*x^n+c*x^{(2*n)}])$

**Rule 1753**

$\text{Int}[(x^{(m_*)}*((e_)+(f_)*(x^{(q_*)}+(g_)*(x^{(r_*)}+(h_)*(x^{(s_*)}))))/(a_)+(b_)*(x^{(n_*)}+(c_)*(x^{(n2_*)}))^{(3/2)},x\_Symbol] :> -\text{Simp}[(2*c*(b*f-2*a*g)+2*h*(b^2-4*a*c)*x^{(n/2)}+2*c*(2*c*f-b*g)*x^n]/(c*n*(b^2-4*a*c)*\text{Sqrt}[a+b*x^n+c*x^{(2*n)}]),x] /; \text{FreeQ}\{a,b,c,e,f,g,h,m,n\},x] \&\& \text{EqQ}[n2,2*n] \&\& \text{EqQ}[q,n/2] \&\& \text{EqQ}[r,(3*n)/2] \&\& \text{EqQ}[s,2*n] \&\& \text{NeQ}[b^2-4*a*c,0] \&\& \text{EqQ}[2*m-n+2,0] \&\& \text{EqQ}[c*e+a*h,0]$

**Rubi steps**

$$\int \frac{x^{-1+\frac{n}{2}}(-ah+cfx^{n/2}+cgx^{3n/2}+chx^{2n})}{(a+bx^n+cx^{2n})^{3/2}} dx = -\frac{2(c(bf-2ag)+(b^2-4ac)hx^{n/2}+c(2cf-bg)x^n)}{(b^2-4ac)n\sqrt{a+bx^n+cx^{2n}}}$$

**Mathematica [F]** time = 0.00, size = 0, normalized size = 0.00

\$Aborted

Verification is Not applicable to the result.

[In]  $\text{Integrate}[(x^{(-1+n/2)}*(-(a*h)+c*f*x^{(n/2)}+c*g*x^{((3*n)/2)}+c*h*x^{(2*n)}))/(a+b*x^n+c*x^{(2*n)})^{(3/2)},x]$

[Out] \$Aborted

**fricas [A]** time = 0.75, size = 109, normalized size = 1.45

$$\frac{2(bc f-2ac g+(b^2-4ac)hx^{\frac{1}{2}n}+(2c^2f-bcg)x^n)\sqrt{cx^{2n}+bx^n+a}}{(b^2c-4ac^2)nx^{2n}+(b^3-4abc)nx^n+(ab^2-4a^2c)n}$$

Verification of antiderivative is not currently implemented for this CAS.

[In] integrate(x<sup>(-1+1/2\*n)</sup>\*(-a\*h+c\*f\*x<sup>(1/2\*n)</sup>+c\*g\*x<sup>(3/2\*n)</sup>+c\*h\*x<sup>(2\*n)</sup>)/(a+b\*x<sup>n</sup>+c\*x<sup>(2\*n)</sup>)<sup>(3/2)</sup>,x, algorithm="fricas")

[Out] -2\*(b\*c\*f - 2\*a\*c\*g + (b<sup>2</sup> - 4\*a\*c)\*h\*x<sup>(1/2\*n)</sup> + (2\*c<sup>2</sup>\*f - b\*c\*g)\*x<sup>n</sup>)\*sqrt(c\*x<sup>(2\*n)</sup> + b\*x<sup>n</sup> + a)/((b<sup>2</sup>\*c - 4\*a\*c<sup>2</sup>)\*n\*x<sup>(2\*n)</sup> + (b<sup>3</sup> - 4\*a\*b\*c)\*n\*x<sup>n</sup> + (a\*b<sup>2</sup> - 4\*a<sup>2</sup>\*c)\*n)

**giac** [B] time = 4.72, size = 187, normalized size = 2.49

$$\frac{2 \left( \sqrt{x^n} \left( \frac{(2b^2c^2f - 8ac^3f - b^3cg + 4abc^2g)\sqrt{x^n}}{b^4 - 8ab^2c + 16a^2c^2} + \frac{b^4h - 8ab^2ch + 16a^2c^2h}{b^4 - 8ab^2c + 16a^2c^2} \right) + \frac{b^3cf - 4abc^2f - 2ab^2cg + 8a^2c^2g}{b^4 - 8ab^2c + 16a^2c^2} \right)}{\sqrt{cx^{2n} + bx^n + a}n}$$

Verification of antiderivative is not currently implemented for this CAS.

[In] integrate(x<sup>(-1+1/2\*n)</sup>\*(-a\*h+c\*f\*x<sup>(1/2\*n)</sup>+c\*g\*x<sup>(3/2\*n)</sup>+c\*h\*x<sup>(2\*n)</sup>)/(a+b\*x<sup>n</sup>+c\*x<sup>(2\*n)</sup>)<sup>(3/2)</sup>,x, algorithm="giac")

[Out] -2\*(sqrt(x<sup>n</sup>)\*((2\*b<sup>2</sup>\*c<sup>2</sup>\*f - 8\*a\*c<sup>3</sup>\*f - b<sup>3</sup>\*c\*g + 4\*a\*b\*c<sup>2</sup>\*g)\*sqrt(x<sup>n</sup>)/(b<sup>4</sup> - 8\*a\*b<sup>2</sup>\*c + 16\*a<sup>2</sup>\*c<sup>2</sup>) + (b<sup>4</sup>\*h - 8\*a\*b<sup>2</sup>\*c\*h + 16\*a<sup>2</sup>\*c<sup>2</sup>\*h)/(b<sup>4</sup> - 8\*a\*b<sup>2</sup>\*c + 16\*a<sup>2</sup>\*c<sup>2</sup>)) + (b<sup>3</sup>\*c\*f - 4\*a\*b\*c<sup>2</sup>\*f - 2\*a\*b<sup>2</sup>\*c\*g + 8\*a<sup>2</sup>\*c<sup>2</sup>\*g)/(b<sup>4</sup> - 8\*a\*b<sup>2</sup>\*c + 16\*a<sup>2</sup>\*c<sup>2</sup>))/(sqrt(c\*x<sup>(2\*n)</sup> + b\*x<sup>n</sup> + a)\*n)

**maple** [F] time = 0.03, size = 0, normalized size = 0.00

$$\int \frac{(cfx^{\frac{n}{2}} + cgx^{\frac{3n}{2}} + chx^{2n} - ah)x^{\frac{n}{2}-1}}{(bx^n + cx^{2n} + a)^{\frac{3}{2}}} dx$$

Verification of antiderivative is not currently implemented for this CAS.

[In] int(x<sup>(1/2\*n-1)</sup>\*(-a\*h+c\*f\*x<sup>(1/2\*n)</sup>+c\*g\*x<sup>(3/2\*n)</sup>+c\*h\*x<sup>(2\*n)</sup>)/(b\*x<sup>n</sup>+c\*x<sup>(2\*n)</sup>+a)<sup>(3/2)</sup>,x)

[Out] int(x<sup>(1/2\*n-1)</sup>\*(-a\*h+c\*f\*x<sup>(1/2\*n)</sup>+c\*g\*x<sup>(3/2\*n)</sup>+c\*h\*x<sup>(2\*n)</sup>)/(b\*x<sup>n</sup>+c\*x<sup>(2\*n)</sup>+a)<sup>(3/2)</sup>,x)

**maxima** [F] time = 0.00, size = 0, normalized size = 0.00

$$\int \frac{(chx^{2n} + cgx^{\frac{3}{2}n} + cfx^{\frac{1}{2}n} - ah)x^{\frac{1}{2}n-1}}{(cx^{2n} + bx^n + a)^{\frac{3}{2}}} dx$$

Verification of antiderivative is not currently implemented for this CAS.

[In] integrate(x<sup>(-1+1/2\*n)</sup>\*(-a\*h+c\*f\*x<sup>(1/2\*n)</sup>+c\*g\*x<sup>(3/2\*n)</sup>+c\*h\*x<sup>(2\*n)</sup>)/(a+b\*x<sup>n</sup>+c\*x<sup>(2\*n)</sup>)<sup>(3/2)</sup>,x, algorithm="maxima")

[Out] integrate((c\*h\*x<sup>(2\*n)</sup> + c\*g\*x<sup>(3/2\*n)</sup> + c\*f\*x<sup>(1/2\*n)</sup> - a\*h)\*x<sup>(1/2\*n - 1)</sup>/(c\*x<sup>(2\*n)</sup> + b\*x<sup>n</sup> + a)<sup>(3/2)</sup>, x)

**mupad** [B] time = 2.45, size = 80, normalized size = 1.07

$$\frac{2b^2hx^{n/2} - 4acg + 2bcf + 4c^2fx^n - 8achx^{n/2} - 2bcgx^n}{(b^2n - 4acn)\sqrt{a + bx^n + cx^{2n}}}$$

Verification of antiderivative is not currently implemented for this CAS.

```
[In] int((x^(n/2 - 1)*(c*f*x^(n/2) - a*h + c*g*x^((3*n)/2) + c*h*x^(2*n)))/(a +
b*x^n + c*x^(2*n))^(3/2),x)
```

```
[Out] -(2*b^2*h*x^(n/2) - 4*a*c*g + 2*b*c*f + 4*c^2*f*x^n - 8*a*c*h*x^(n/2) - 2*b
*c*g*x^n)/((b^2*n - 4*a*c*n)*(a + b*x^n + c*x^(2*n))^(1/2))
```

```
sympy [F(-1)] time = 0.00, size = 0, normalized size = 0.00
```

Timed out

Verification of antiderivative is not currently implemented for this CAS.

```
[In] integrate(x**(-1+1/2*n)*(-a*h+c*f*x**(1/2*n)+c*g*x**(3/2*n)+c*h*x**(2*n))/(
a+b*x**n+c*x**(2*n))**(3/2),x)
```

```
[Out] Timed out
```



$$3.15 \quad \int \frac{(dx)^{-1+\frac{n}{2}} (-ah+cfx^{n/2}+cgx^{3n/2}+chx^{2n})}{(a+bx^n+cx^{2n})^{3/2}} dx$$

**Optimal.** Leaf size=95

$$\frac{2x^{1-\frac{n}{2}}(dx)^{\frac{n-2}{2}} (hx^{n/2} (b^2 - 4ac) + c(bf - 2ag) + cx^n(2cf - bg))}{n(b^2 - 4ac) \sqrt{a + bx^n + cx^{2n}}}$$

[Out]  $-2*x^{(1-1/2*n)}*(d*x)^{(-1+1/2*n)}*(c*(-2*a*g+b*f))+(-4*a*c+b^2)*h*x^{(1/2*n)}+c*(-b*g+2*c*f)*x^n)/(-4*a*c+b^2)/n/(a+b*x^n+c*x^{(2*n)})^{(1/2)}$

**Rubi [A]** time = 0.22, antiderivative size = 95, normalized size of antiderivative = 1.00, number of steps used = 2, number of rules used = 2, integrand size = 63,  $\frac{\text{number of rules}}{\text{integrand size}} = 0.032$ , Rules used = {1754, 1753}

$$\frac{2x^{1-\frac{n}{2}}(dx)^{\frac{n-2}{2}} (hx^{n/2} (b^2 - 4ac) + c(bf - 2ag) + cx^n(2cf - bg))}{n(b^2 - 4ac) \sqrt{a + bx^n + cx^{2n}}}$$

Antiderivative was successfully verified.

[In]  $\text{Int}[(d*x)^{(-1+n/2)}*(-(a*h)+c*f*x^{(n/2)}+c*g*x^{((3*n)/2)}+c*h*x^{(2*n)})/(a+b*x^n+c*x^{(2*n)})^{(3/2)},x]$

[Out]  $(-2*x^{(1-n/2)}*(d*x)^{((-2+n)/2)}*(c*(b*f-2*a*g)+(b^2-4*a*c)*h*x^{(n/2)}+c*(2*c*f-b*g)*x^n)/((b^2-4*a*c)*n*\text{Sqrt}[a+b*x^n+c*x^{(2*n)}])$

**Rule 1753**

$\text{Int}[(x_)^{(m_*)}*((e_)+(f_)*(x_)^{(q_*)}+(g_)*(x_)^{(r_*)}+(h_)*(x_)^{(s_*)})]/((a_)+(b_)*(x_)^{(n_*)}+(c_)*(x_)^{(n2_*)})^{(3/2)},x\_Symbol] :> -\text{Simp}[(2*c*(b*f-2*a*g)+2*h*(b^2-4*a*c)*x^{(n/2)}+2*c*(2*c*f-b*g)*x^n)/(c*n*(b^2-4*a*c)*\text{Sqrt}[a+b*x^n+c*x^{(2*n)}]),x] /; \text{FreeQ}[\{a,b,c,e,f,g,h,m,n\},x] \&\& \text{EqQ}[n2,2*n] \&\& \text{EqQ}[q,n/2] \&\& \text{EqQ}[r,(3*n)/2] \&\& \text{EqQ}[s,2*n] \&\& \text{NeQ}[b^2-4*a*c,0] \&\& \text{EqQ}[2*m-n+2,0] \&\& \text{EqQ}[c*e+a*h,0]$

**Rule 1754**

$\text{Int}[(d_)*(x_)^{(m_*)}*((e_)+(f_)*(x_)^{(q_*)}+(g_)*(x_)^{(r_*)}+(h_)*(x_)^{(s_*)})]/((a_)+(b_)*(x_)^{(n_*)}+(c_)*(x_)^{(n2_*)})^{(3/2)},x\_Symbol] :> \text{Dist}[(d*x)^m/x^m, \text{Int}[(x^m*(e+f*x^{(n/2)}+g*x^{((3*n)/2)}+h*x^{(2*n)}))/(a+b*x^n+c*x^{(2*n)})^{(3/2)},x],x] /; \text{FreeQ}[\{a,b,c,d,e,f,g,h,m,n\},x] \&\& \text{EqQ}[n2,2*n] \&\& \text{EqQ}[q,n/2] \&\& \text{EqQ}[r,(3*n)/2] \&\& \text{EqQ}[s,2*n] \&\& \text{NeQ}[b^2-4*a*c,0] \&\& \text{EqQ}[2*m-n+2,0] \&\& \text{EqQ}[c*e+a*h,0]$

**Rubi steps**

$$\int \frac{(dx)^{-1+\frac{n}{2}} (-ah+cfx^{n/2}+cgx^{3n/2}+chx^{2n})}{(a+bx^n+cx^{2n})^{3/2}} dx = \left(x^{1-\frac{n}{2}}(dx)^{-1+\frac{n}{2}}\right) \int \frac{x^{-1+\frac{n}{2}} (-ah+cfx^{n/2}+cgx^{3n/2}+chx^{2n})}{(a+bx^n+cx^{2n})^{3/2}} dx$$

$$= -\frac{2x^{1-\frac{n}{2}}(dx)^{\frac{1}{2}(-2+n)} (c(bf - 2ag) + (b^2 - 4ac)hx^{n/2} + c(2cf - bg))}{(b^2 - 4ac)n\sqrt{a + bx^n + cx^{2n}}}$$

**Mathematica [F]** time = 0.00, size = 0, normalized size = 0.00

\$Aborted

Verification is Not applicable to the result.

[In] Integrate[((d\*x)^(-1 + n/2)\*(-(a\*h) + c\*f\*x^(n/2) + c\*g\*x^((3\*n)/2) + c\*h\*x^(2\*n)))/(a + b\*x^n + c\*x^(2\*n))^(3/2), x]

[Out] \$Aborted

**fricas** [A] time = 0.64, size = 132, normalized size = 1.39

$$\frac{2 \left( (b^2 - 4ac) d^{\frac{1}{2}n-1} h x^{\frac{1}{2}n} + (2c^2f - bcg) d^{\frac{1}{2}n-1} x^n + (bcf - 2acg) d^{\frac{1}{2}n-1} \right) \sqrt{cx^{2n} + bx^n + a}}{(b^2c - 4ac^2)nx^{2n} + (b^3 - 4abc)nx^n + (ab^2 - 4a^2c)n}$$

Verification of antiderivative is not currently implemented for this CAS.

[In] integrate((d\*x)^(-1+1/2\*n)\*(-a\*h+c\*f\*x^(1/2\*n)+c\*g\*x^(3/2\*n)+c\*h\*x^(2\*n))/(a+b\*x^n+c\*x^(2\*n))^(3/2), x, algorithm="fricas")

[Out] -2\*((b^2 - 4\*a\*c)\*d^(1/2\*n - 1)\*h\*x^(1/2\*n) + (2\*c^2\*f - b\*c\*g)\*d^(1/2\*n - 1)\*x^n + (b\*c\*f - 2\*a\*c\*g)\*d^(1/2\*n - 1))\*sqrt(c\*x^(2\*n) + b\*x^n + a)/((b^2\*c - 4\*a\*c^2)\*n\*x^(2\*n) + (b^3 - 4\*a\*b\*c)\*n\*x^n + (a\*b^2 - 4\*a^2\*c)\*n)

**giac** [F] time = 0.00, size = 0, normalized size = 0.00

$$\int \frac{(chx^{2n} + cgx^{\frac{3}{2}n} + cfx^{\frac{1}{2}n} - ah)(dx)^{\frac{1}{2}n-1}}{(cx^{2n} + bx^n + a)^{\frac{3}{2}}} dx$$

Verification of antiderivative is not currently implemented for this CAS.

[In] integrate((d\*x)^(-1+1/2\*n)\*(-a\*h+c\*f\*x^(1/2\*n)+c\*g\*x^(3/2\*n)+c\*h\*x^(2\*n))/(a+b\*x^n+c\*x^(2\*n))^(3/2), x, algorithm="giac")

[Out] integrate((c\*h\*x^(2\*n) + c\*g\*x^(3/2\*n) + c\*f\*x^(1/2\*n) - a\*h)\*(d\*x)^(1/2\*n - 1)/(c\*x^(2\*n) + b\*x^n + a)^(3/2), x)

**maple** [F] time = 0.02, size = 0, normalized size = 0.00

$$\int \frac{(cfx^{\frac{n}{2}} + cgx^{\frac{3n}{2}} + chx^{2n} - ah)(dx)^{\frac{n}{2}-1}}{(bx^n + cx^{2n} + a)^{\frac{3}{2}}} dx$$

Verification of antiderivative is not currently implemented for this CAS.

[In] int((d\*x)^(1/2\*n-1)\*(c\*f\*x^(1/2\*n)+c\*g\*x^(3/2\*n)+c\*h\*x^(2\*n)-a\*h)/(b\*x^n+c\*x^(2\*n)+a)^(3/2), x)

[Out] int((d\*x)^(1/2\*n-1)\*(c\*f\*x^(1/2\*n)+c\*g\*x^(3/2\*n)+c\*h\*x^(2\*n)-a\*h)/(b\*x^n+c\*x^(2\*n)+a)^(3/2), x)

**maxima** [F] time = 0.00, size = 0, normalized size = 0.00

$$\int \frac{(chx^{2n} + cgx^{\frac{3}{2}n} + cfx^{\frac{1}{2}n} - ah)(dx)^{\frac{1}{2}n-1}}{(cx^{2n} + bx^n + a)^{\frac{3}{2}}} dx$$

Verification of antiderivative is not currently implemented for this CAS.

[In] integrate((d\*x)^(-1+1/2\*n)\*(-a\*h+c\*f\*x^(1/2\*n)+c\*g\*x^(3/2\*n)+c\*h\*x^(2\*n))/(a+b\*x^n+c\*x^(2\*n))^(3/2), x, algorithm="maxima")

[Out] integrate((c\*h\*x^(2\*n) + c\*g\*x^(3/2\*n) + c\*f\*x^(1/2\*n) - a\*h)\*(d\*x)^(1/2\*n - 1)/(c\*x^(2\*n) + b\*x^n + a)^(3/2), x)

mupad [F] time = 0.00, size = -1, normalized size = -0.01

$$\int \frac{(dx)^{\frac{n}{2}-1} \left( c f x^{n/2} - a h + c g x^{\frac{3n}{2}} + c h x^{2n} \right)}{(a + b x^n + c x^{2n})^{3/2}} dx$$

Verification of antiderivative is not currently implemented for this CAS.

[In] int(((d\*x)^(n/2 - 1)\*(c\*f\*x^(n/2) - a\*h + c\*g\*x^((3\*n)/2) + c\*h\*x^(2\*n)))/(a + b\*x^n + c\*x^(2\*n))^(3/2), x)

[Out] int(((d\*x)^(n/2 - 1)\*(c\*f\*x^(n/2) - a\*h + c\*g\*x^((3\*n)/2) + c\*h\*x^(2\*n)))/(a + b\*x^n + c\*x^(2\*n))^(3/2), x)

sympy [F(-1)] time = 0.00, size = 0, normalized size = 0.00

Timed out

Verification of antiderivative is not currently implemented for this CAS.

[In] integrate((d\*x)\*\*(-1+1/2\*n)\*(-a\*h+c\*f\*x\*\*(1/2\*n)+c\*g\*x\*\*(3/2\*n)+c\*h\*x\*\*(2\*n)))/(a+b\*x\*\*n+c\*x\*\*(2\*n))\*\*(3/2), x)

[Out] Timed out

### 3.16 $\int (gx)^m (a + bx^n + cx^{2n})^p (a(1+m) + b(1+m+n+np))$

**Optimal.** Leaf size=29

$$\frac{(gx)^{m+1} (a + bx^n + cx^{2n})^{p+1}}{g}$$

[Out]  $(g*x)^{(1+m)}*(a+b*x^n+c*x^{(2*n)})^{(1+p)}/g$

**Rubi [A]** time = 0.07, antiderivative size = 29, normalized size of antiderivative = 1.00, number of steps used = 1, number of rules used = 1, integrand size = 56,  $\frac{\text{number of rules}}{\text{integrand size}} = 0.018$ , Rules used = {1747}

$$\frac{(gx)^{m+1} (a + bx^n + cx^{2n})^{p+1}}{g}$$

Antiderivative was successfully verified.

[In]  $\text{Int}[(g*x)^m*(a + b*x^n + c*x^{(2*n)})^p*(a*(1+m) + b*(1+m+n+n*p)*x^n + c*(1+m+2*n*(1+p))*x^{(2*n)}], x]$

[Out]  $((g*x)^{(1+m)}*(a + b*x^n + c*x^{(2*n)})^{(1+p)})/g$

**Rule 1747**

$\text{Int}[(g_*)*(x_*)^{(m_*)}*((a_*) + (b_*)*(x_*)^{(n_*)} + (c_*)*(x_*)^{(n2_*)})^{(p_*)}*((d_*) + (e_*)*(x_*)^{(n_*)} + (f_*)*(x_*)^{(n2_*)}), x\_Symbol] :> \text{Simp}[(d*(g*x)^{(m+1)}*(a + b*x^n + c*x^{(2*n)})^{(p+1)})/(a*g*(m+1)), x] /;$  FreeQ[{a, b, c, d, e, f, g, m, n, p}, x] && EqQ[n2, 2\*n] && EqQ[a\*e\*(m+1) - b\*d\*(m+n\*(p+1)+1), 0] && EqQ[a\*f\*(m+1) - c\*d\*(m+2\*n\*(p+1)+1), 0] && NeQ[m, -1]

**Rubi steps**

$$\int (gx)^m (a + bx^n + cx^{2n})^p (a(1+m) + b(1+m+n+np)x^n + c(1+m+2n(1+p))x^{2n}) dx = \frac{(gx)^{1+m} (a + bx^n + cx^{2n})^{p+1}}{g}$$

**Mathematica [A]** time = 0.43, size = 24, normalized size = 0.83

$$x(gx)^m (a + x^n (b + cx^n))^{p+1}$$

Antiderivative was successfully verified.

[In]  $\text{Integrate}[(g*x)^m*(a + b*x^n + c*x^{(2*n)})^p*(a*(1+m) + b*(1+m+n+n*p)*x^n + c*(1+m+2*n*(1+p))*x^{(2*n)}], x]$

[Out]  $x*(g*x)^m*(a + x^n*(b + c*x^n))^{(1+p)}$

**fricas [B]** time = 0.53, size = 65, normalized size = 2.24

$$\left( cxx^{2n}e^{(m \log(g)+m \log(x))} + bxx^n e^{(m \log(g)+m \log(x))} + axe^{(m \log(g)+m \log(x))} \right) (cx^{2n} + bx^n + a)^p$$

Verification of antiderivative is not currently implemented for this CAS.

[In]  $\text{integrate}((g*x)^m*(a+b*x^n+c*x^{(2*n)})^p*(a*(1+m)+b*(n*p+m+n+1)*x^n+c*(1+m+2*n*(1+p))*x^{(2*n)}), x, \text{algorithm}="fricas")$

[Out]  $(c*x*x^{(2*n)}*e^{(m*\log(g) + m*\log(x))} + b*x*x^n*e^{(m*\log(g) + m*\log(x))} + a*x*e^{(m*\log(g) + m*\log(x))})*(c*x^{(2*n)} + b*x^n + a)^p$

**giac** [B] time = 1.55, size = 96, normalized size = 3.31

$(cx^{2n} + bx^n + a)^p cxx^{2n}e^{(m\log(g)+m\log(x))} + (cx^{2n} + bx^n + a)^p bxx^n e^{(m\log(g)+m\log(x))} + (cx^{2n} + bx^n + a)^p axe^{(m\log(g)+m\log(x))}$

Verification of antiderivative is not currently implemented for this CAS.

[In] integrate((g\*x)^m\*(a+b\*x^n+c\*x^(2\*n))^p\*(a\*(1+m)+b\*(n\*p+m+n+1)\*x^n+c\*(1+m+2\*n\*(1+p))\*x^(2\*n)),x, algorithm="giac")

[Out]  $(c*x^{(2*n)} + b*x^n + a)^p*c*x*x^{(2*n)}*e^{(m*\log(g) + m*\log(x))} + (c*x^{(2*n)} + b*x^n + a)^p*b*x*x^n*e^{(m*\log(g) + m*\log(x))} + (c*x^{(2*n)} + b*x^n + a)^p*a*x*e^{(m*\log(g) + m*\log(x))}$

**maple** [F] time = 0.06, size = 0, normalized size = 0.00

$\int ((pn + m + n + 1) b x^n + (m + 2(p + 1)n + 1) c x^{2n} + (m + 1)a) (g x)^m (b x^n + c x^{2n} + a)^p dx$

Verification of antiderivative is not currently implemented for this CAS.

[In] int((g\*x)^m\*(b\*x^n+c\*x^(2\*n)+a)^p\*(a\*(m+1)+b\*(n\*p+m+n+1)\*x^n+c\*(1+m+2\*(p+1)\*n)\*x^(2\*n)),x)

[Out] int((g\*x)^m\*(b\*x^n+c\*x^(2\*n)+a)^p\*(a\*(m+1)+b\*(n\*p+m+n+1)\*x^n+c\*(1+m+2\*(p+1)\*n)\*x^(2\*n)),x)

**maxima** [B] time = 1.18, size = 60, normalized size = 2.07

$(ag^mxx^m + cg^mxe^{(m\log(x)+2n\log(x))} + bg^mxe^{(m\log(x)+n\log(x))})(cx^{2n} + bx^n + a)^p$

Verification of antiderivative is not currently implemented for this CAS.

[In] integrate((g\*x)^m\*(a+b\*x^n+c\*x^(2\*n))^p\*(a\*(1+m)+b\*(n\*p+m+n+1)\*x^n+c\*(1+m+2\*n\*(1+p))\*x^(2\*n)),x, algorithm="maxima")

[Out]  $(a*g^m*x*x^m + c*g^m*x*x^{(m*\log(x) + 2*n*\log(x))} + b*g^m*x*x^n*e^{(m*\log(x) + n*\log(x))})*(c*x^{(2*n)} + b*x^n + a)^p$

**mupad** [B] time = 2.25, size = 50, normalized size = 1.72

$(ax(gx)^m + bxx^n(gx)^m + cxx^{2n}(gx)^m)(a + bx^n + cx^{2n})^p$

Verification of antiderivative is not currently implemented for this CAS.

[In] int((g\*x)^m\*(a + b\*x^n + c\*x^(2\*n))^p\*(a\*(m + 1) + b\*x^n\*(m + n + n\*p + 1) + c\*x^(2\*n)\*(m + 2\*n\*(p + 1) + 1)),x)

[Out]  $(a*x*(g*x)^m + b*x*x^n*(g*x)^m + c*x*x^{(2*n)}*(g*x)^m)*(a + b*x^n + c*x^{(2*n)})^p$

**sympy** [F(-1)] time = 0.00, size = 0, normalized size = 0.00

Timed out

Verification of antiderivative is not currently implemented for this CAS.

[In] integrate((g\*x)\*\*m\*(a+b\*x\*\*n+c\*x\*\*(2\*n))\*\*p\*(a\*(1+m)+b\*(n\*p+m+n+1)\*x\*\*n+c\*(1+m+2\*n\*(1+p))\*x\*\*(2\*n)),x)

[Out] Timed out

**3.17** 
$$\int \frac{A+Bx^n+Cx^{2n}+Dx^{3n}}{(a+bx^n+cx^{2n})^2} dx$$

**Optimal.** Leaf size=494

$$\frac{x \left( x^n (bc(aC + Ac) - ab^2D - 2ac(Bc - aD)) + Ac(b^2 - 2ac) - a(abD - 2acC + bBc) \right)}{acn(b^2 - 4ac)(a + bx^n + cx^{2n})} + \frac{{}_2F_1\left(1, \frac{1}{n}; 1 + \frac{1}{n}; -\frac{2cx^n}{b - \sqrt{b^2 - 4ac}}\right)}{b - \sqrt{b^2 - 4ac}}$$

[Out] x\*(A\*c\*(-2\*a\*c+b^2)-a\*(B\*b\*c-2\*C\*a\*c+D\*a\*b)+(b\*c\*(A\*c+C\*a)-a\*b^2\*D-2\*a\*c\*(B\*c-D\*a))\*x^n/a/c/(-4\*a\*c+b^2)/n/(a+b\*x^n+c\*x^(2\*n))+x\*hypergeom([1, 1/n], [1+1/n], -2\*c\*x^n/(b-(-4\*a\*c+b^2)^(1/2)))\*(a\*b^2\*D-b\*c\*(A\*c+C\*a)\*(1-n)+2\*a\*c\*(B\*c\*(1-n)-a\*D\*(1+n))+(A\*c^2\*(4\*a\*c\*(1-2\*n)-b^2\*(1-n))-a\*(4\*a\*c^2\*C+b^3\*D-b^2\*c\*C\*(1-n)-2\*b\*c\*(B\*c\*n+a\*D\*(2+n))))/(-4\*a\*c+b^2)^(1/2)/a/c/(-4\*a\*c+b^2)/n/(b-(-4\*a\*c+b^2)^(1/2))+x\*hypergeom([1, 1/n], [1+1/n], -2\*c\*x^n/(b+(-4\*a\*c+b^2)^(1/2)))\*(a\*b^2\*D-b\*c\*(A\*c+C\*a)\*(1-n)+2\*a\*c\*(B\*c\*(1-n)-a\*D\*(1+n))+(-A\*c^2\*(4\*a\*c\*(1-2\*n)-b^2\*(1-n))+a\*(4\*a\*c^2\*C+b^3\*D-b^2\*c\*C\*(1-n)-2\*b\*c\*(B\*c\*n+a\*D\*(2+n))))/(-4\*a\*c+b^2)^(1/2)/a/c/(-4\*a\*c+b^2)/n/(b+(-4\*a\*c+b^2)^(1/2))

**Rubi [A]** time = 1.58, antiderivative size = 494, normalized size of antiderivative = 1.00, number of steps used = 4, number of rules used = 3, integrand size = 38,  $\frac{\text{number of rules}}{\text{integrand size}} = 0.079$ , Rules used = {1794, 1422, 245}

$$\frac{{}_2F_1\left(1, \frac{1}{n}; 1 + \frac{1}{n}; -\frac{2cx^n}{b - \sqrt{b^2 - 4ac}}\right) \left( \frac{Ac^2(4ac(1-2n)-b^2(1-n))-a(-2bc(aD(n+2)+Bcn)+4ac^2C-b^2cC(1-n)+b^3D)}{\sqrt{b^2-4ac}} - bc(1-n)(aC + Ac) + \dots \right)}{acn(b^2 - 4ac) \left( b - \sqrt{b^2 - 4ac} \right)}$$

Antiderivative was successfully verified.

[In] Int[(A + B\*x^n + C\*x^(2\*n) + D\*x^(3\*n))/(a + b\*x^n + c\*x^(2\*n))^2, x]

[Out] (x\*(A\*c\*(b^2 - 2\*a\*c) - a\*(b\*B\*c - 2\*a\*c\*C + a\*b\*D) + (b\*c\*(A\*c + a\*C) - a\*b^2\*D - 2\*a\*c\*(B\*c - a\*D))\*x^n)/(a\*c\*(b^2 - 4\*a\*c)\*n\*(a + b\*x^n + c\*x^(2\*n))) + ((a\*b^2\*D - b\*c\*(A\*c + a\*C)\*(1 - n) + 2\*a\*c\*(B\*c\*(1 - n) - a\*D\*(1 + n)) + (A\*c^2\*(4\*a\*c\*(1 - 2\*n) - b^2\*(1 - n)) - a\*(4\*a\*c^2\*C + b^3\*D - b^2\*c\*C\*(1 - n) - 2\*b\*c\*(B\*c\*n + a\*D\*(2 + n))))/Sqrt[b^2 - 4\*a\*c])\*x\*Hypergeometric2F1[1, n^(-1), 1 + n^(-1), (-2\*c\*x^n)/(b - Sqrt[b^2 - 4\*a\*c])]/(a\*c\*(b^2 - 4\*a\*c)\*(b - Sqrt[b^2 - 4\*a\*c])\*n) + ((a\*b^2\*D - b\*c\*(A\*c + a\*C)\*(1 - n) + 2\*a\*c\*(B\*c\*(1 - n) - a\*D\*(1 + n)) - (A\*c^2\*(4\*a\*c\*(1 - 2\*n) - b^2\*(1 - n)) - a\*(4\*a\*c^2\*C + b^3\*D - b^2\*c\*C\*(1 - n) - 2\*b\*c\*(B\*c\*n + a\*D\*(2 + n))))/Sqrt[b^2 - 4\*a\*c])\*x\*Hypergeometric2F1[1, n^(-1), 1 + n^(-1), (-2\*c\*x^n)/(b + Sqrt[b^2 - 4\*a\*c])]/(a\*c\*(b^2 - 4\*a\*c)\*(b + Sqrt[b^2 - 4\*a\*c])\*n)

**Rule 245**

Int[((a\_) + (b\_.)\*(x\_)^(n\_))^(p\_), x\_Symbol] := Simp[a^p\*x\*Hypergeometric2F1[-p, 1/n, 1/n + 1, -((b\*x^n)/a)], x] /; FreeQ[{a, b, n, p}, x] && !IGtQ[p, 0] && !IntegerQ[1/n] && !ILtQ[Simplify[1/n + p], 0] && (IntegerQ[p] || GtQ[a, 0])

**Rule 1422**

Int[((d\_) + (e\_.)\*(x\_)^(n\_))/((a\_) + (b\_.)\*(x\_)^(n\_) + (c\_.)\*(x\_)^(n2\_)), x\_Symbol] := With[{q = Rt[b^2 - 4\*a\*c, 2]}, Dist[e/2 + (2\*c\*d - b\*e)/(2\*q), Int[1/(b/2 - q/2 + c\*x^n), x], x] + Dist[e/2 - (2\*c\*d - b\*e)/(2\*q), Int[1/(b/2 + q/2 + c\*x^n), x], x]] /; FreeQ[{a, b, c, d, e, n}, x] && EqQ[n2, 2\*n] && NeQ[b^2 - 4\*a\*c, 0] && NeQ[c\*d^2 - b\*d\*e + a\*e^2, 0] && (PosQ[b^2 - 4\*a\*c] || !IGtQ[n/2, 0])

Rule 1794

```
Int[(P3_)*((a_) + (b_.)*(x_)^(n_) + (c_.)*(x_)^(n2_))^(p_), x_Symbol] := With[
  {d = Coeff[P3, x^n, 0], e = Coeff[P3, x^n, 1], f = Coeff[P3, x^n, 2], g = Coeff[P3, x^n, 3]},
  -Simp[(x*(b^2*c*d - 2*a*c*(c*d - a*f) - a*b*(c*e + a*g) + (b*c*(c*d + a*f) - a*b^2*g - 2*a*c*(c*e - a*g))*x^n)*(a + b*x^n + c*x^(2*n))^(p + 1))/(a*c*n*(p + 1)*(b^2 - 4*a*c)), x] - Dist[1/(a*c*n*(p + 1)*(b^2 - 4*a*c)), Int[(a + b*x^n + c*x^(2*n))^(p + 1)*Simp[a*b*(c*e + a*g) - b^2*c*d*(n + n*p + 1) - 2*a*c*(a*f - c*d*(2*n*(p + 1) + 1)) + (a*b^2*g*(n*(p + 2) + 1) - b*c*(c*d + a*f)*(n*(2*p + 3) + 1) - 2*a*c*(a*g*(n + 1) - c*e*(n*(2*p + 3) + 1)))*x^n, x], x]] /; FreeQ[{a, b, c, n}, x] && EqQ[n2, 2*n] && PolyQ[P3, x^n, 3] && NeQ[b^2 - 4*a*c, 0] && ILtQ[p, -1]
```

Rubi steps

$$\int \frac{A + Bx^n + Cx^{2n} + Dx^{3n}}{(a + bx^n + cx^{2n})^2} dx = \frac{x \left( Ac(b^2 - 2ac) - a(bBc - 2acC + abD) + (bc(Ac + aC) - ab^2D - 2ac(Bc - a^2)) \right)}{ac(b^2 - 4ac)n(a + bx^n + cx^{2n})}$$

$$= \frac{x \left( Ac(b^2 - 2ac) - a(bBc - 2acC + abD) + (bc(Ac + aC) - ab^2D - 2ac(Bc - a^2)) \right)}{ac(b^2 - 4ac)n(a + bx^n + cx^{2n})}$$

$$= \frac{x \left( Ac(b^2 - 2ac) - a(bBc - 2acC + abD) + (bc(Ac + aC) - ab^2D - 2ac(Bc - a^2)) \right)}{ac(b^2 - 4ac)n(a + bx^n + cx^{2n})}$$

**Mathematica** [B] time = 6.89, size = 5439, normalized size = 11.01

Result too large to show

Antiderivative was successfully verified.

[In] Integrate[(A + B\*x^n + C\*x^(2\*n) + D\*x^(3\*n))/(a + b\*x^n + c\*x^(2\*n))^2, x]

[Out] Result too large to show

**fricas** [F] time = 0.71, size = 0, normalized size = 0.00

$$\text{integral} \left( \frac{Dx^{3n} + Cx^{2n} + Bx^n + A}{c^2x^{4n} + b^2x^{2n} + 2abx^n + a^2 + 2(bc x^n + ac)x^{2n}}, x \right)$$

Verification of antiderivative is not currently implemented for this CAS.

[In] integrate((A+B\*x^n+C\*x^(2\*n)+D\*x^(3\*n))/(a+b\*x^n+c\*x^(2\*n))^2,x, algorithm="fricas")

[Out] integral((D\*x^(3\*n) + C\*x^(2\*n) + B\*x^n + A)/(c^2\*x^(4\*n) + b^2\*x^(2\*n) + 2\*a\*b\*x^n + a^2 + 2\*(b\*c\*x^n + a\*c)\*x^(2\*n)), x)

**giac** [F] time = 0.00, size = 0, normalized size = 0.00

$$\int \frac{Dx^{3n} + Cx^{2n} + Bx^n + A}{(cx^{2n} + bx^n + a)^2} dx$$

Verification of antiderivative is not currently implemented for this CAS.

[In] integrate((A+B\*x^n+C\*x^(2\*n)+D\*x^(3\*n))/(a+b\*x^n+c\*x^(2\*n))^2,x, algorithm="giac")

[Out] integrate((D\*x^(3\*n) + C\*x^(2\*n) + B\*x^n + A)/(c\*x^(2\*n) + b\*x^n + a)^2, x)

**maple** [F] time = 0.03, size = 0, normalized size = 0.00

$$\int \frac{Bx^n + Cx^{2n} + Dx^{3n} + A}{(bx^n + cx^{2n} + a)^2} dx$$

Verification of antiderivative is not currently implemented for this CAS.

[In] int((A+B\*x^n+C\*x^(2\*n)+D\*x^(3\*n))/(b\*x^n+c\*x^(2\*n)+a)^2,x)

[Out] int((A+B\*x^n+C\*x^(2\*n)+D\*x^(3\*n))/(b\*x^n+c\*x^(2\*n)+a)^2,x)

**maxima** [F] time = 0.00, size = 0, normalized size = 0.00

$$\frac{(Cabc - 2Bac^2 + Abc^2 - (ab^2 - 2a^2c)D)xx^n - (Da^2b - 2Ca^2c + Babc - (b^2c - 2ac^2)A)x}{a^2b^2cn - 4a^3c^2n + (ab^2c^2n - 4a^2c^3n)x^{2n} + (ab^3cn - 4a^2bc^2n)x^n} \int -\frac{Da^2b - 2Ca^2c + \dots}{\dots}$$

Verification of antiderivative is not currently implemented for this CAS.

[In] integrate((A+B\*x^n+C\*x^(2\*n)+D\*x^(3\*n))/(a+b\*x^n+c\*x^(2\*n))^2,x, algorithm="maxima")

[Out] ((C\*a\*b\*c - 2\*B\*a\*c^2 + A\*b\*c^2 - (a\*b^2 - 2\*a^2\*c)\*D)\*x\*x^n - (D\*a^2\*b - 2\*C\*a^2\*c + B\*a\*b\*c - (b^2\*c - 2\*a\*c^2)\*A)\*x)/(a^2\*b^2\*c\*n - 4\*a^3\*c^2\*n + (a\*b^2\*c^2\*n - 4\*a^2\*c^3\*n)\*x^(2\*n) + (a\*b^3\*c\*n - 4\*a^2\*b\*c^2\*n)\*x^n) - integrate(-(D\*a^2\*b - 2\*C\*a^2\*c + B\*a\*b\*c - (2\*a\*c^2\*(2\*n - 1) - b^2\*c\*(n - 1))\*A + (C\*a\*b\*c\*(n - 1) - 2\*B\*a\*c^2\*(n - 1) + A\*b\*c^2\*(n - 1) - (2\*a^2\*c\*(n + 1) - a\*b^2)\*D)\*x^n)/(a^2\*b^2\*c\*n - 4\*a^3\*c^2\*n + (a\*b^2\*c^2\*n - 4\*a^2\*c^3\*n)\*x^(2\*n) + (a\*b^3\*c\*n - 4\*a^2\*b\*c^2\*n)\*x^n), x)

**mupad** [F] time = 0.00, size = -1, normalized size = -0.00

$$\int \frac{A + Cx^{2n} + x^{3n}D + Bx^n}{(a + bx^n + cx^{2n})^2} dx$$

Verification of antiderivative is not currently implemented for this CAS.

[In] int((A + C\*x^(2\*n) + x^(3\*n)\*D + B\*x^n)/(a + b\*x^n + c\*x^(2\*n))^2,x)

[Out] int((A + C\*x^(2\*n) + x^(3\*n)\*D + B\*x^n)/(a + b\*x^n + c\*x^(2\*n))^2, x)

**sympy** [F(-1)] time = 0.00, size = 0, normalized size = 0.00

Timed out

Verification of antiderivative is not currently implemented for this CAS.

[In] integrate((A+B\*x\*\*n+C\*x\*\*(2\*n)+D\*x\*\*(3\*n))/(a+b\*x\*\*n+c\*x\*\*(2\*n))\*\*2,x)

[Out] Timed out



# Chapter 4

## Listing of Grading functions

The following are the current version of the grading functions used for grading the quality of the antiderivative with reference to the optimal antiderivative included in the test suite.

There is a version for Maple and for Mathematica/Rubi. There is a version for grading Sympy and version for use with Sagemath.

The following are links to the current source code.

The following are the listings of source code of the grading functions.

### 4.0.1 Mathematica and Rubi grading function

```
(* Original version thanks to Albert Rich emailed on 03/21/2017 *)
(* ::Package:: *)

(* ::Subsection:: *)
(*GradeAntiderivative[result,optimal]*)

(* ::Text:: *)
(*If result and optimal are mathematical expressions, *)
(*      GradeAntiderivative[result,optimal] returns*)
(* "F" if the result fails to integrate an expression that*)
(*   is integrable*)
(* "C" if result involves higher level functions than necessary*)
(* "B" if result is more than twice the size of the optimal*)
(*   antiderivative*)
(* "A" if result can be considered optimal*)

GradeAntiderivative[result_,optimal_] :=
  If[ExpnType[result]<=ExpnType[optimal],
    If[FreeQ[result,Complex] || Not[FreeQ[optimal,Complex]],
      If[LeafCount[result]<=2*LeafCount[optimal],
        "A",
        "B"],
      "C"],
    If[FreeQ[result,Integrate] && FreeQ[result,Int],
      "C",
      "F"]]

(* ::Text:: *)
(*The following summarizes the type number assigned an *)
(*expression based on the functions it involves*)
(*1 = rational function*)
(*2 = algebraic function*)
```

```

(*3 = elementary function*)
(*4 = special function*)
(*5 = hyperpergeometric function*)
(*6 = appell function*)
(*7 = rootsum function*)
(*8 = integrate function*)
(*9 = unknown function*)

ExpnType[expn_] :=
  If[AtomQ[expn],
    1,
    If[ListQ[expn],
      Max[Map[ExpnType, expn]],
      If[Head[expn]===Power,
        If[IntegerQ[expn[[2]]],
          ExpnType[expn[[1]]],
          If[Head[expn[[2]]]===Rational,
            If[IntegerQ[expn[[1]]] || Head[expn[[1]]]===Rational,
              1,
              Max[ExpnType[expn[[1]], 2]],
            Max[ExpnType[expn[[1]], ExpnType[expn[[2]], 3]],
          If[Head[expn]===Plus || Head[expn]===Times,
            Max[ExpnType[First[expn]], ExpnType[Rest[expn]]],
          If[ElementaryFunctionQ[Head[expn]],
            Max[3, ExpnType[expn[[1]]],
          If[SpecialFunctionQ[Head[expn]],
            Apply[Max, Append[Map[ExpnType, Apply[List, expn]], 4]],
          If[HypergeometricFunctionQ[Head[expn]],
            Apply[Max, Append[Map[ExpnType, Apply[List, expn]], 5]],
          If[AppellFunctionQ[Head[expn]],
            Apply[Max, Append[Map[ExpnType, Apply[List, expn]], 6]],
          If[Head[expn]===RootSum,
            Apply[Max, Append[Map[ExpnType, Apply[List, expn]], 7]],
          If[Head[expn]===Integrate || Head[expn]===Int,
            Apply[Max, Append[Map[ExpnType, Apply[List, expn]], 8]],
          9]]]]]]]]]]

ElementaryFunctionQ[func_] :=
  MemberQ[{
    Exp, Log,
    Sin, Cos, Tan, Cot, Sec, Csc,
    ArcSin, ArcCos, ArcTan, ArcCot, ArcSec, ArcCsc,
    Sinh, Cosh, Tanh, Coth, Sech, Csch,
    ArcSinh, ArcCosh, ArcTanh, ArcCoth, ArcSech, ArcCsch
  }, func]

SpecialFunctionQ[func_] :=
  MemberQ[{
    Erf, Erfc, Erfi,
    FresnelS, FresnelC,
    ExpIntegralE, ExpIntegralEi, LogIntegral,
    SinIntegral, CosIntegral, SinhIntegral, CoshIntegral,
    Gamma, LogGamma, PolyGamma,
    Zeta, PolyLog, ProductLog,
    EllipticF, EllipticE, EllipticPi
  }, func]

HypergeometricFunctionQ[func_] :=
  MemberQ[{Hypergeometric1F1, Hypergeometric2F1, HypergeometricPFQ}, func]

```

```
AppellFunctionQ[func_] :=
  MemberQ[{AppellF1},func]
```

## 4.0.2 Maple grading function

```
# File: GradeAntiderivative.mpl
# Original version thanks to Albert Rich emailed on 03/21/2017

#Nasser 03/22/2017 Use Maple leaf count instead since buildin
#Nasser 03/23/2017 missing 'ln' for ElementaryFunctionQ added
#Nasser 03/24/2017 corrected the check for complex result
#Nasser 10/27/2017 check for leafsize and do not call ExpnType()
#
# if leaf size is "too large". Set at 500,000
#Nasser 12/22/2019 Added debug flag, added 'dilog' to special functions
#
# see problem 156, file Apostol_Problems

GradeAntiderivative := proc(result,optimal)
local leaf_count_result, leaf_count_optimal,ExpnType_result,ExpnType_optimal,
  debug:=false;

  leaf_count_result:=leafcount(result);
  #do NOT call ExpnType() if leaf size is too large. Recursion problem
  if leaf_count_result > 500000 then
    return "B";
  fi;

  leaf_count_optimal:=leafcount(optimal);

  ExpnType_result:=ExpnType(result);
  ExpnType_optimal:=ExpnType(optimal);

  if debug then
    print("ExpnType_result",ExpnType_result," ExpnType_optimal=",
  ExpnType_optimal);
  fi;

# If result and optimal are mathematical expressions,
# GradeAntiderivative[result,optimal] returns
# "F" if the result fails to integrate an expression that
# is integrable
# "C" if result involves higher level functions than necessary
# "B" if result is more than twice the size of the optimal
# antiderivative
# "A" if result can be considered optimal

#This check below actually is not needed, since I only
#call this grading only for passed integrals. i.e. I check
#for "F" before calling this. But no harm of keeping it here.
#just in case.

if not type(result,freeof('int')) then
  return "F";
end if;

if ExpnType_result<=ExpnType_optimal then
  if debug then
    print("ExpnType_result<=ExpnType_optimal");
  fi;

```

```

if is_contains_complex(result) then
  if is_contains_complex(optimal) then
    if debug then
      print("both result and optimal complex");
    fi;
    #both result and optimal complex
    if leaf_count_result<=2*leaf_count_optimal then
      return "A";
    else
      return "B";
    end if
  else #result contains complex but optimal is not
    if debug then
      print("result contains complex but optimal is not");
    fi;
    return "C";
  end if
else # result do not contain complex
  # this assumes optimal do not as well
  if debug then
    print("result do not contain complex, this assumes optimal do
not as well");
  fi;
  if leaf_count_result<=2*leaf_count_optimal then
    if debug then
      print("leaf_count_result<=2*leaf_count_optimal");
    fi;
    return "A";
  else
    if debug then
      print("leaf_count_result>2*leaf_count_optimal");
    fi;
    return "B";
  end if
end if
else #ExpnType(result) > ExpnType(optimal)
  if debug then
    print("ExpnType(result) > ExpnType(optimal)");
  fi;
  return "C";
end if

end proc:

#
# is_contains_complex(result)
# takes expressions and returns true if it contains "I" else false
#
#Nasser 032417
is_contains_complex:= proc(expression)
  return (has(expression,I));
end proc:

# The following summarizes the type number assigned an expression
# based on the functions it involves
# 1 = rational function
# 2 = algebraic function
# 3 = elementary function
# 4 = special function
# 5 = hyperpergeometric function
# 6 = appell function
# 7 = rootsum function
# 8 = integrate function

```

```

# 9 = unknown function

ExpnType := proc(expn)
  if type(expn,'atomic') then
    1
  elif type(expn,'list') then
    apply(max,map(ExpnType,expn))
  elif type(expn,'sqrt') then
    if type(op(1,expn),'rational') then
      1
    else
      max(2,ExpnType(op(1,expn)))
    end if
  elif type(expn,'^^') then
    if type(op(2,expn),'integer') then
      ExpnType(op(1,expn))
    elif type(op(2,expn),'rational') then
      if type(op(1,expn),'rational') then
        1
      else
        max(2,ExpnType(op(1,expn)))
      end if
    else
      max(3,ExpnType(op(1,expn)),ExpnType(op(2,expn)))
    end if
  elif type(expn,'+' or type(expn,'*') then
    max(ExpnType(op(1,expn)),max(ExpnType(rest(expn))))
  elif ElementaryFunctionQ(op(0,expn)) then
    max(3,ExpnType(op(1,expn)))
  elif SpecialFunctionQ(op(0,expn)) then
    max(4,apply(max,map(ExpnType,[op(expn)])))
  elif HypergeometricFunctionQ(op(0,expn)) then
    max(5,apply(max,map(ExpnType,[op(expn)])))
  elif AppellFunctionQ(op(0,expn)) then
    max(6,apply(max,map(ExpnType,[op(expn)])))
  elif op(0,expn)='int' then
    max(8,apply(max,map(ExpnType,[op(expn)]))) else
    9
  end if
end proc:

ElementaryFunctionQ := proc(func)
  member(func,[
    exp,log,ln,
    sin,cos,tan,cot,sec,csc,
    arcsin,arccos,arctan,arccot,arcsec,arccsc,
    sinh,cosh,tanh,coth,sech,csch,
    arcsinh,arccosh,arctanh,arccoth,arcsech,arccsch])
end proc:

SpecialFunctionQ := proc(func)
  member(func,[
    erf,erfc,erfi,
    FresnelS,FresnelC,
    Ei,Ei,Li,Si,Ci,Shi,Chi,
    GAMMA,lnGAMMA,Psi,Zeta,polylog,dilog,LambertW,
    EllipticF,EllipticE,EllipticPi])
end proc:

HypergeometricFunctionQ := proc(func)
  member(func,[Hypergeometric1F1,hypergeom,HypergeometricPFQ])
end proc:

```

```

AppellFunctionQ := proc(func)
  member(func,[AppellF1])
end proc:

# u is a sum or product. rest(u) returns all but the
# first term or factor of u.
rest := proc(u) local v;
  if nops(u)=2 then
    op(2,u)
  else
    apply(op(0,u),op(2..nops(u),u))
  end if
end proc:

#leafcount(u) returns the number of nodes in u.
#Nasser 3/23/17 Replaced by build-in leafCount from package in Maple
leafcount := proc(u)
  MmaTranslator[Mma][LeafCount](u);
end proc:

```

### 4.0.3 Sympy grading function

```

#Dec 24, 2019. Nasser M. Abbasi:
#           Port of original Maple grading function by
#           Albert Rich to use with Sympy/Python
#Dec 27, 2019 Nasser. Added `RootSum`. See problem 177, Timofeev file
#           added 'exp_polar'
from sympy import *

def leaf_count(expr):
  #sympy do not have leaf count function. This is approximation
  return round(1.7*count_ops(expr))

def is_sqrt(expr):
  if isinstance(expr,Pow):
    if expr.args[1] == Rational(1,2):
      return True
    else:
      return False
  else:
    return False

def is_elementary_function(func):
  return func in [exp,log,ln,sin,cos,tan,cot,sec,csc,
    asin,acos,atan,acot,asec,acsc,sinh,cosh,tanh,coth,sech,csch,
    asinh,acosh,atanh,acoth,asech,acsch
  ]

def is_special_function(func):
  return func in [ erf,erfc,erfi,
    fresnels,fresnelc,Ei,Ei,Li,Si,Ci,Shi,Chi,
    gamma,loggamma,digamma,zeta,polylog,LambertW,
    elliptic_f,elliptic_e,elliptic_pi,exp_polar
  ]

def is_hypergeometric_function(func):
  return func in [hyper]

def is_appell_function(func):
  return func in [appellf1]

```

```

def is_atom(expn):
    try:
        if expn.isAtom or isinstance(expn,int) or isinstance(expn,float):
            return True
        else:
            return False

    except AttributeError as error:
        return False

def expnType(expn):
    debug=False
    if debug:
        print("expn=",expn,"type(expn)=",type(expn))

    if is_atom(expn):
        return 1
    elif isinstance(expn,list):
        return max(map(expnType, expn)) #apply(max,map(ExpnType,expn))
    elif is_sqrt(expn):
        if isinstance(expn.args[0],Rational): #type(op(1,expn),'rational')
            return 1
        else:
            return max(2,expnType(expn.args[0])) #max(2,ExpnType(op(1,expn)))
    elif isinstance(expn,Pow): #type(expn,'^^')
        if isinstance(expn.args[1],Integer): #type(op(2,expn),'integer')
            return expnType(expn.args[0]) #ExpnType(op(1,expn))
        elif isinstance(expn.args[1],Rational): #type(op(2,expn),'rational')
            if isinstance(expn.args[0],Rational): #type(op(1,expn),'rational')
                return 1
            else:
                return max(2,expnType(expn.args[0])) #max(2,ExpnType(op(1,expn)))
    elif isinstance(expn,Add) or isinstance(expn,Mul): #type(expn,'+`' or
    type(expn,'*`)
        m1 = expnType(expn.args[0])
        m2 = expnType(list(expn.args[1:]))
        return max(m1,m2) #max(ExpnType(op(1,expn)),max(ExpnType(rest(expn))))
    elif is_elementary_function(expn.func): #ElementaryFunctionQ(op(0,expn))
        return max(3,expnType(expn.args[0])) #max(3,ExpnType(op(1,expn)))
    elif is_special_function(expn.func): #SpecialFunctionQ(op(0,expn))
        m1 = max(map(expnType, list(expn.args)))
        return max(4,m1) #max(4,apply(max,map(ExpnType,[op(expn)])))
    elif is_hypergeometric_function(expn.func): #HypergeometricFunctionQ(op(0,
    expn))
        m1 = max(map(expnType, list(expn.args)))
        return max(5,m1) #max(5,apply(max,map(ExpnType,[op(expn)])))
    elif is_appell_function(expn.func):
        m1 = max(map(expnType, list(expn.args)))
        return max(6,m1) #max(5,apply(max,map(ExpnType,[op(expn)])))
    elif isinstance(expn,RootSum):
        m1 = max(map(expnType, list(expn.args))) #Apply[Max,Append[Map[ExpnType
    ,Apply[List,expn]],7]],
        return max(7,m1)
    elif str(expn).find("Integral") != -1:
        m1 = max(map(expnType, list(expn.args)))
        return max(8,m1) #max(5,apply(max,map(ExpnType,[op(expn)])))
    else:
        return 9

```

```

#main function
def grade_antiderivative(result,optimal):

    leaf_count_result = leaf_count(result)
    leaf_count_optimal = leaf_count(optimal)

    expnType_result = expnType(result)
    expnType_optimal = expnType(optimal)

    if str(result).find("Integral") != -1:
        return "F"

    if expnType_result <= expnType_optimal:
        if result.has(I):
            if optimal.has(I): #both result and optimal complex
                if leaf_count_result <= 2*leaf_count_optimal:
                    return "A"
                else:
                    return "B"
            else: #result contains complex but optimal is not
                return "C"
        else: # result do not contain complex, this assumes optimal do not as
well
            if leaf_count_result <= 2*leaf_count_optimal:
                return "A"
            else:
                return "B"
    else:
        return "C"

```

## 4.0.4 SageMath grading function

```

#Dec 24, 2019. Nasser: Ported original Maple grading function by
#           Albert Rich to use with Sagemath. This is used to
#           grade Fricas, Giac and Maxima results.
#Dec 24, 2019. Nasser: Added 'exp_integral_e' and 'sng', 'sin_integral'
#           'arctan2','floor','abs','log_integral'

from sage.all import *
from sage.symbolic.operators import add_vararg, mul_vararg

debug=False;

def tree_size(expr):
    r"""
    Return the tree size of this expression.
    """
    if expr not in SR:
        # deal with lists, tuples, vectors
        return 1 + sum(tree_size(a) for a in expr)
    expr = SR(expr)
    x, aa = expr.operator(), expr.operands()
    if x is None:
        return 1
    else:
        return 1 + sum(tree_size(a) for a in aa)

def is_sqrt(expr):
    if expr.operator() == operator.pow: #isinstance(expr,Pow):
        if expr.operands()[1]==1/2: #expr.args[1] == Rational(1,2):
            if debug: print ("expr is sqrt")
            return True

```



```

        else:
            return False
    else:
        return False

def is_elementary_function(func):
    debug=False
    m = func.name() in ['exp','log','ln',
        'sin','cos','tan','cot','sec','csc',
        'arcsin','arccos','arctan','arccot','arcsec','arccsc',
        'sinh','cosh','tanh','coth','sech','csch',
        'arcsinh','arccosh','arctanh','arccoth','arcsech','arccsch','sgn',
        'arctan2','floor','abs'
    ]
    if debug:
        if m:
            print ("func ", func , " is elementary_function")
        else:
            print ("func ", func , " is NOT elementary_function")

    return m

def is_special_function(func):
    debug=False
    if debug: print ("type(func)=", type(func))

    m= func.name() in ['erf','erfc','erfi','fresnel_sin','fresnel_cos','Ei',
        'Ei','Li','Si','sin_integral','Ci','cos_integral','Shi','
sinh_integral'
        'Chi','cosh_integral','gamma','log_gamma','psi,zeta',
        'polylog','lambert_w','elliptic_f','elliptic_e',
        'elliptic_pi','exp_integral_e','log_integral']

    if debug:
        print ("m=",m)
        if m:
            print ("func ", func ," is special_function")
        else:
            print ("func ", func ," is NOT special_function")

    return m

def is_hypergeometric_function(func):
    return func.name() in ['hypergeometric','hypergeometric_M',
hypergeometric_U']

def is_appell_function(func):
    return func.name() in ['hypergeometric']    #[appellf1] can't find this in
sagemath

def is_atom(expn):

    debug=False
    if debug: print ("Enter is_atom")

    #thanks to answer at https://ask.sagemath.org/question/49179/what-is-
sagemath-equivalent-to-atomic-type-in-maple/
    try:
        if expn.parent() is SR:

```

```

        return expn.operator() is None
    if expn.parent() in (ZZ, QQ, AA, QQbar):
        return expn in expn.parent() # Should always return True
    if hasattr(expn.parent(),"base_ring") and hasattr(expn.parent(),"gens")
:
        return expn in expn.parent().base_ring() or expn in expn.parent().
gens()
    return False

except AttributeError as error:
    return False

def expnType(expn):

    if debug:
        print (">>>>Enter expnType, expn=", expn)
        print (">>>>is_atom(expn)=", is_atom(expn))

    if is_atom(expn):
        return 1
    elif type(expn)==list: #isinstance(expn,list):
        return max(map(expnType, expn)) #apply(max,map(ExpnType,expn))
    elif is_sqrt(expn):
        if type(expn.operands()[0])==Rational: #type(isinstance(expn.args[0],
Rational):
            return 1
        else:
            return max(2,expnType(expn.operands()[0])) #max(2,expnType(expn.
args[0]))
    elif expn.operator() == operator.pow: #isinstance(expn,Pow)
        if type(expn.operands()[1])==Integer: #isinstance(expn.args[1],Integer
)
            return expnType(expn.operands()[0]) #expnType(expn.args[0])
        elif type(expn.operands()[1])==Rational: #isinstance(expn.args[1],
Rational)
            if type(expn.operands()[0])==Rational: #isinstance(expn.args[0],
Rational)
                return 1
            else:
                return max(2,expnType(expn.operands()[0])) #max(2,expnType(
expn.args[0]))
        else:
            return max(3,expnType(expn.operands()[0]),expnType(expn.operands(
[1])) #max(3,expnType(expn.operands()[0]),expnType(expn.operands()[1]))
    elif expn.operator() == add_vararg or expn.operator() == mul_vararg: #
isinstance(expn,Add) or isinstance(expn,Mul)
        m1 = expnType(expn.operands()[0]) #expnType(expn.args[0])
        m2 = expnType(expn.operands()[1:]) #expnType(list(expn.args[1:]))
        return max(m1,m2) #max(ExpnType(op(1,expn)),max(ExpnType(rest(expn)))
    elif is_elementary_function(expn.operator()): #is_elementary_function(expn
.func)
        return max(3,expnType(expn.operands()[0]))
    elif is_special_function(expn.operator()): #is_special_function(expn.func)
        m1 = max(map(expnType, expn.operands())) #max(map(expnType, list(
expn.args)))
        return max(4,m1) #max(4,m1)
    elif is_hypergeometric_function(expn.operator()): #
is_hypergeometric_function(expn.func)
        m1 = max(map(expnType, expn.operands())) #max(map(expnType, list(
expn.args)))
        return max(5,m1) #max(5,m1)
    elif is_appell_function(expn.operator()):

```

```

        m1 = max(map(expnType, expn.operands()))      #max(map(expnType, list(
expn.args)))
        return max(6,m1)      #max(6,m1)
    elif str(expn).find("Integral") != -1: #this will never happen, since it
        #is checked before calling the grading function that is passed.
        #but kept it here.
        m1 = max(map(expnType, expn.operands()))      #max(map(expnType, list(
expn.args)))
        return max(8,m1)      #max(5,apply(max,map(ExpnType,[op(expn)])))
    else:
        return 9

#main function
def grade_antiderivative(result,optimal):

    if debug: print ("Enter grade_antiderivative for sagemath")

    leaf_count_result = tree_size(result) #leaf_count(result)
    leaf_count_optimal = tree_size(optimal) #leaf_count(optimal)

    if debug: print ("leaf_count_result=", leaf_count_result, "
leaf_count_optimal=",leaf_count_optimal)

    expnType_result = expnType(result)
    expnType_optimal = expnType(optimal)

    if debug: print ("expnType_result=", expnType_result, "expnType_optimal=",
expnType_optimal)

    if expnType_result <= expnType_optimal:
        if result.has(I):
            if optimal.has(I): #both result and optimal complex
                if leaf_count_result <= 2*leaf_count_optimal:
                    return "A"
                else:
                    return "B"
            else: #result contains complex but optimal is not
                return "C"
        else: # result do not contain complex, this assumes optimal do not as
well
            if leaf_count_result <= 2*leaf_count_optimal:
                return "A"
            else:
                return "B"
    else:
        return "C"

```