HW 10, Math 121 A
Spring, 2004
UC BERKELEY

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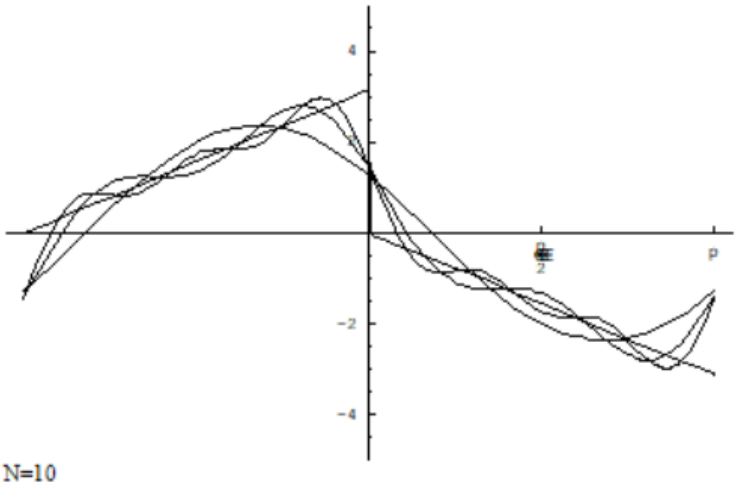
1 chapter 7, problem 4.10

I wrote a Mathematica program to help me understand the Fourier problems. This below is the output showing how series converges to the function for a number of n-values as n increases. Problem 4.10, chapter 7. Mary Boas second edition.

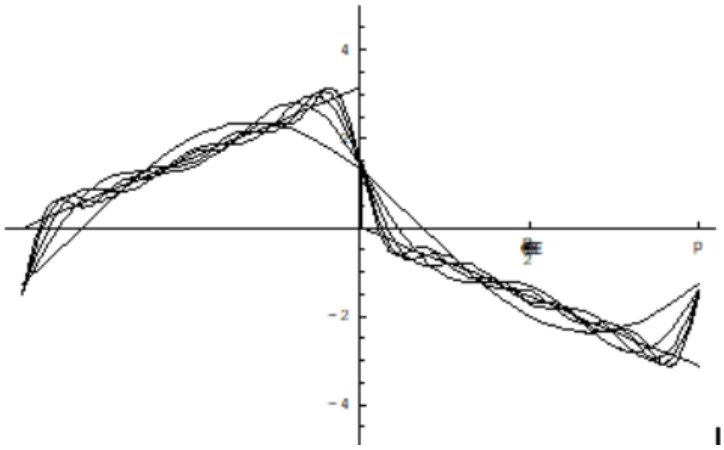
This is fourier series for

f[x_]:=x+π /; -π<=x<0
f[x_]:=-x /; 0<=x≤π

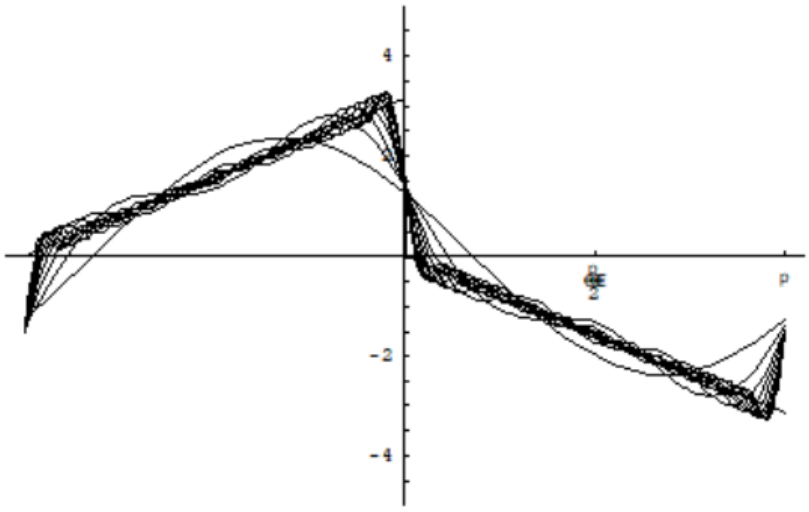
N=5



N=10



N=20



2 chapter 7, problem 4.2

I wrote a Mathematica program to help me understand the Fourier problems. This below is the output showing how series converges to the function for a number of n-values as n increases.

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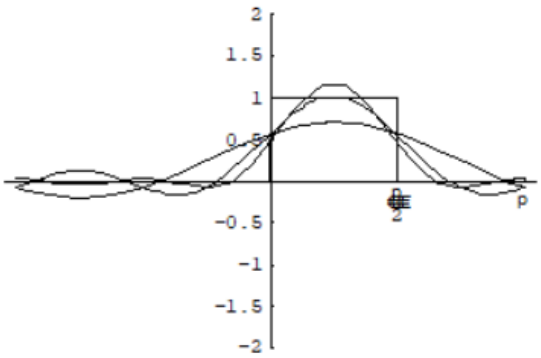
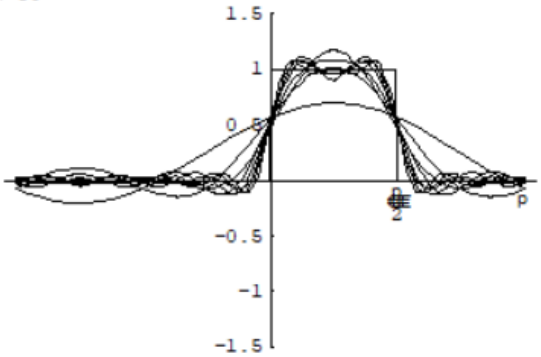
This below is the output showing how series converges to the function for a number of n-values as n increases.

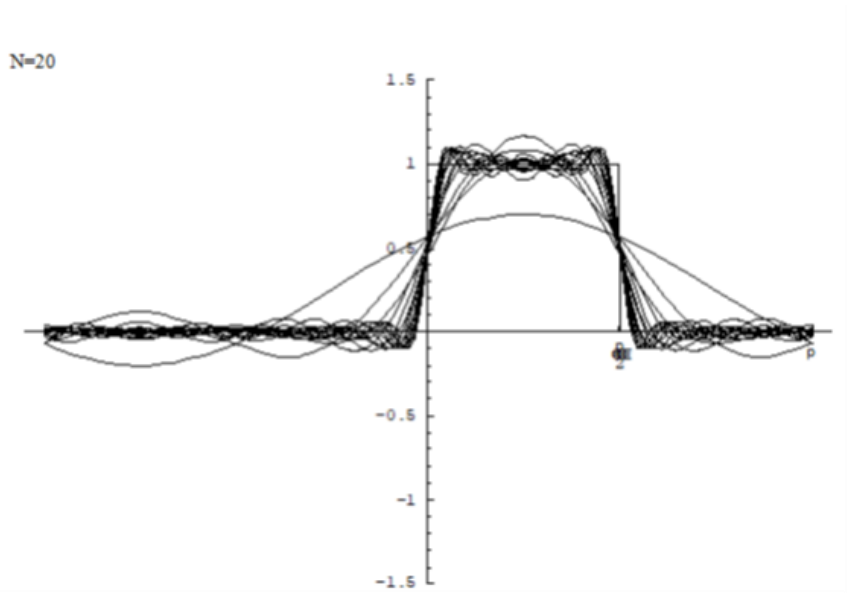
N=5



N=10



N=20

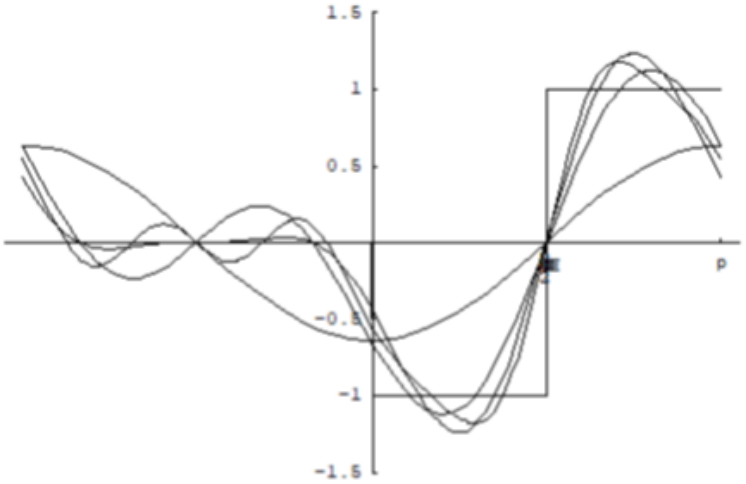


3 chapter 7, problem 4.5

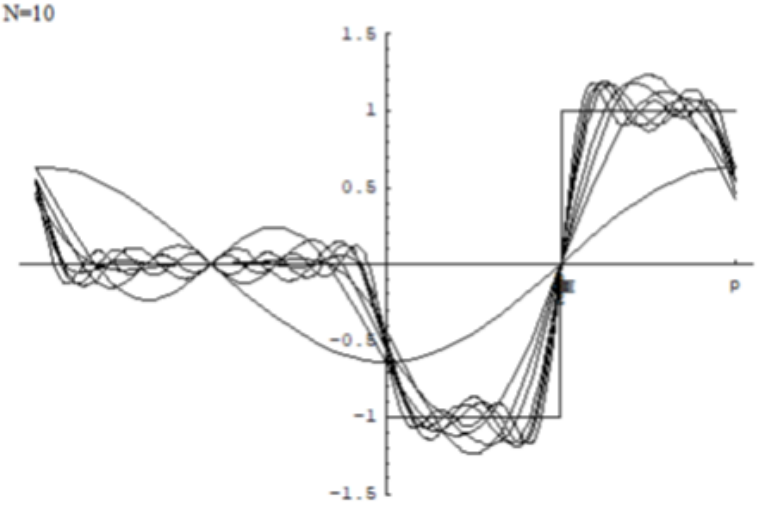
I wrote a Mathematica program to help me understand the Fourier problems. This below is the output showing how series converges to the function for a number of n-values as n increases.

I wrote a mathematica program to help me understand the Fourier problems.
This below is the output showing how series converges to the function for a number of n-values as n increases. Problem 4.5, chapter 7, Mary Boas second edition.

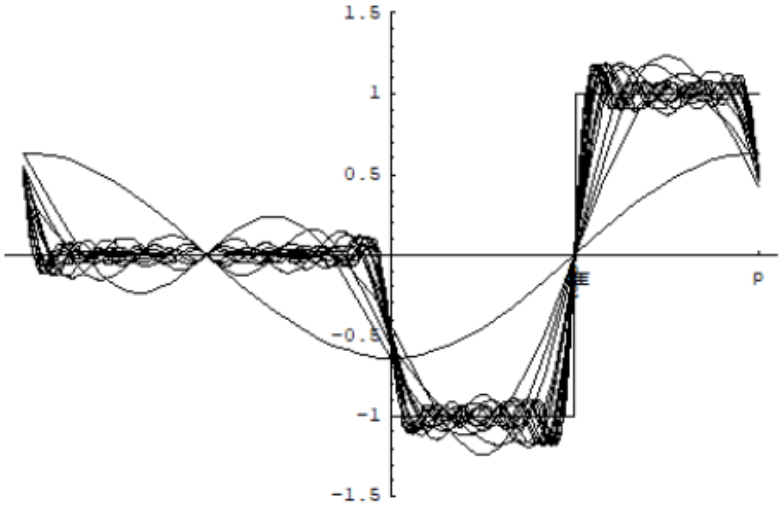
N=5



N=10



N=20



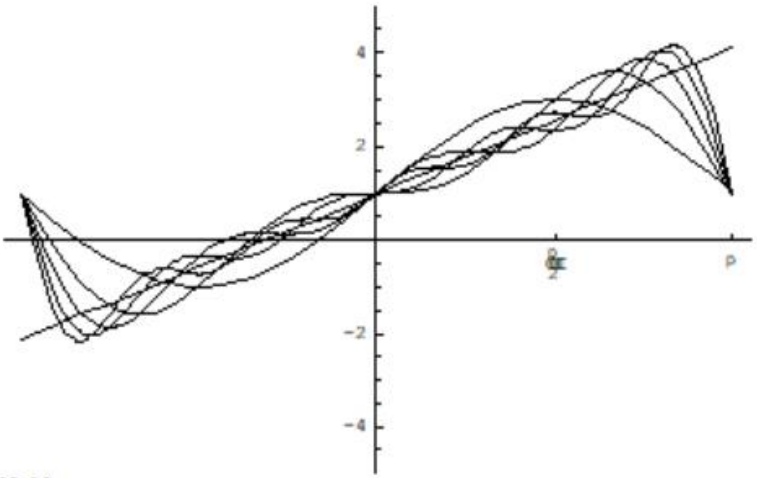
4 chapter 7, problem 4.8

I wrote a Mathematica program to help me understand the Fourier problems. This below is the output showing how series converges to the function for a number of n-values as n increases.

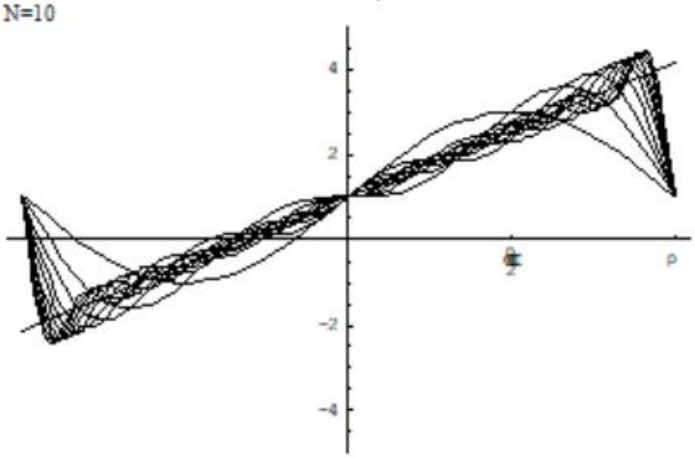
I wrote a mathematica program to help me understand the Fourier problems.
This below is the output showing how series converges to the function for a number of n-values as n increases. Problem 4.8, chapter 7, Mary Boas second edition.

This is fourier series for
F(x)=1+x

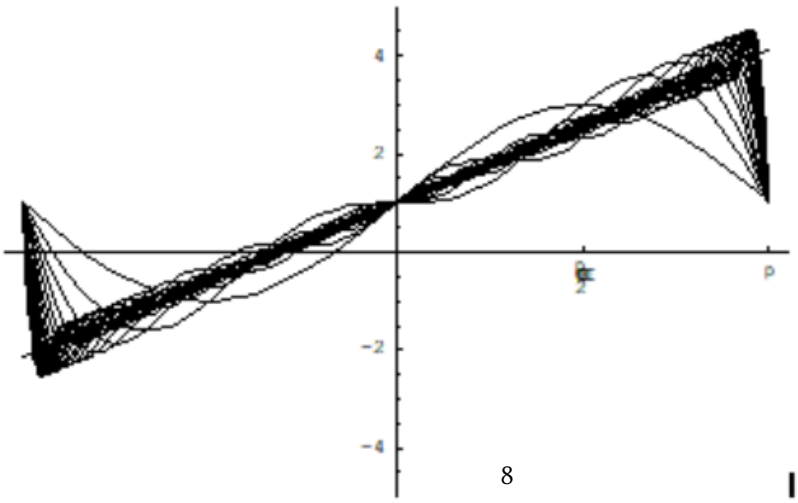
N=5



N=10



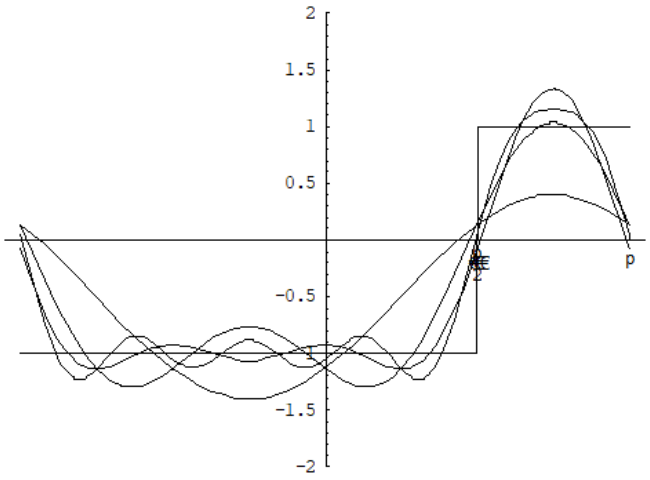
N=20



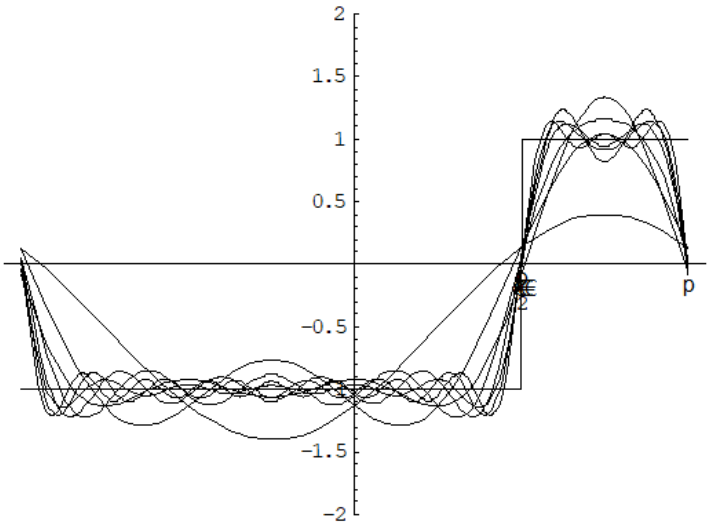
5 chapter 7, problem 5.4

I wrote a Mathematica program to help me understand the Fourier problems. This below is the output showing how series converges to the function for a number of n-values as n increases.

N=5



N=10



N=20