HW 10, Math 121 A
Spring, 2004
UC BERKELEY

Nasser M. Abbasi

Spring, 2004   Compiled on October 28, 2018 at 4:15pm   [public]
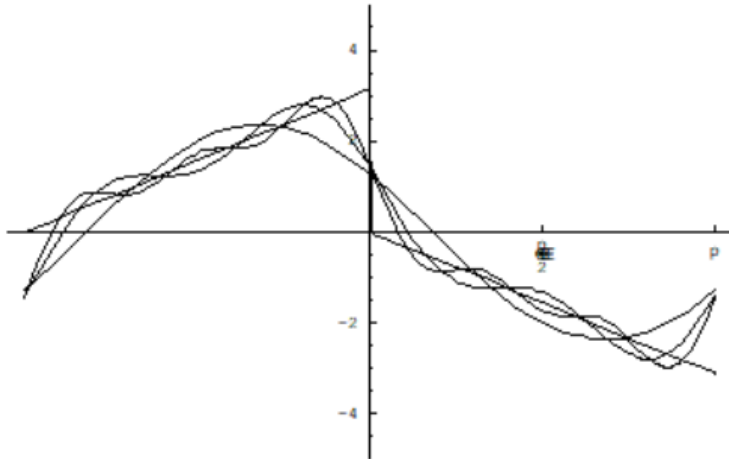
Contents

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.
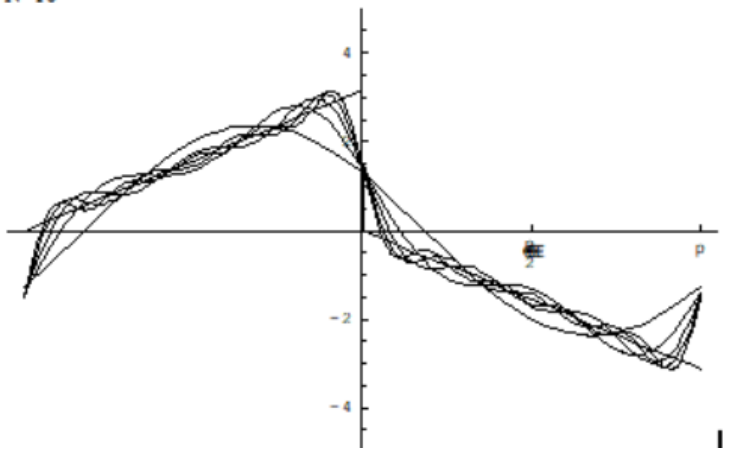
This is fourier series for

$f[x\_]:=x+\pi \;/;\; -\pi<=x<0$
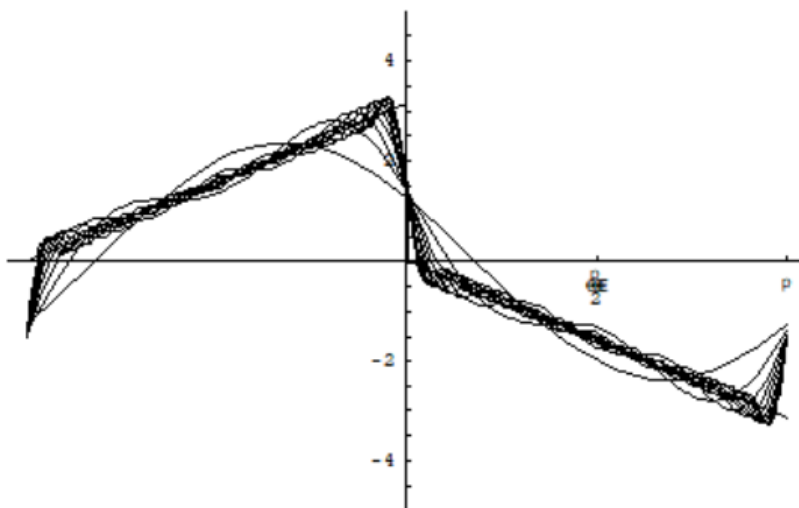$f[x\_]:=-x \;/;\; 0<=x\leq\pi$
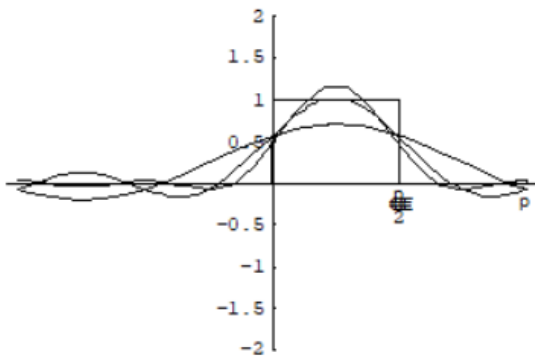
N=5

N=10

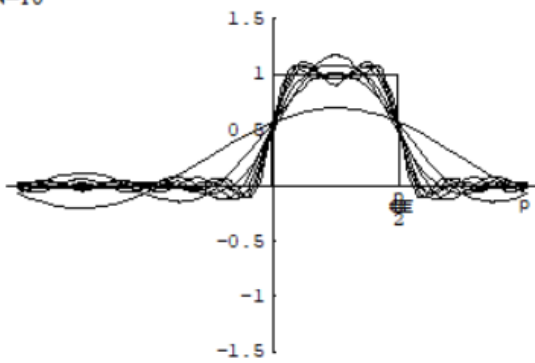N=20

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.

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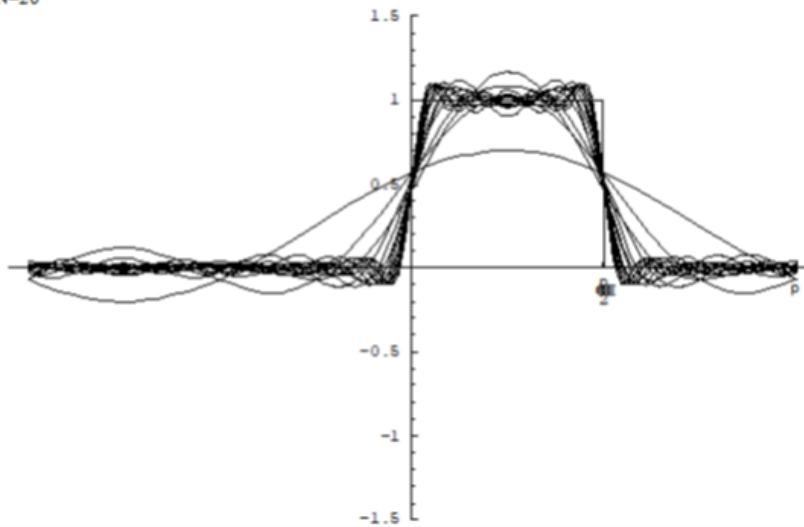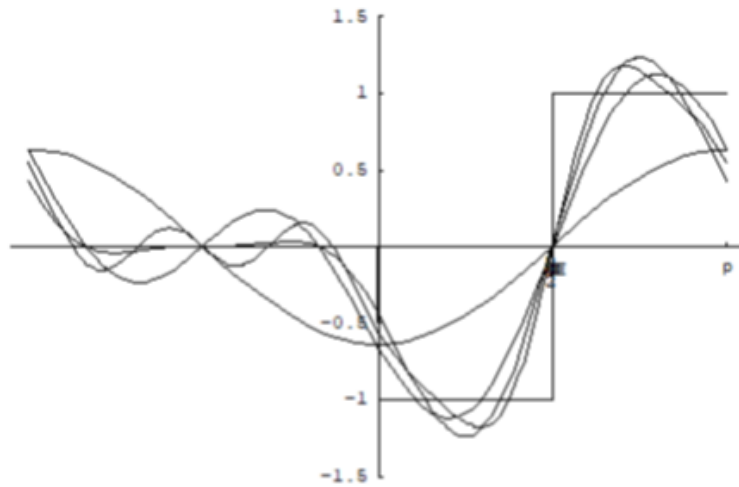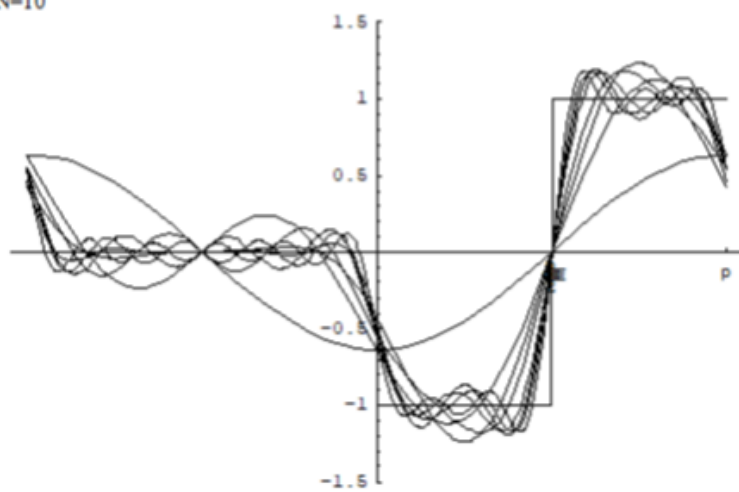
I wrote a mathematica program to help me understand the Fourier problems.
This below is the output showing how series converges to the function for a number of n-
values as n increases. Problem 4.5, chapter 7, Mary Boas second edition.

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-
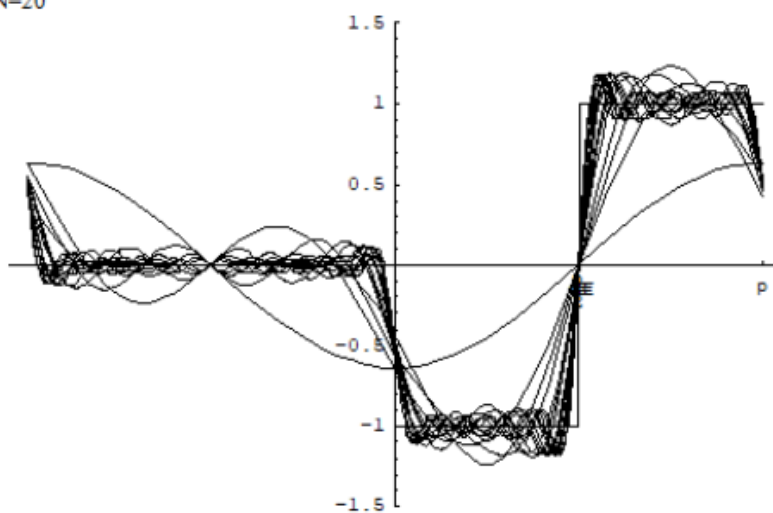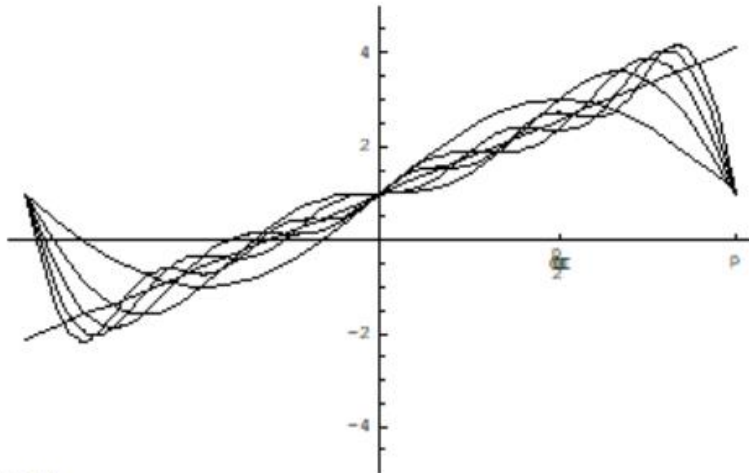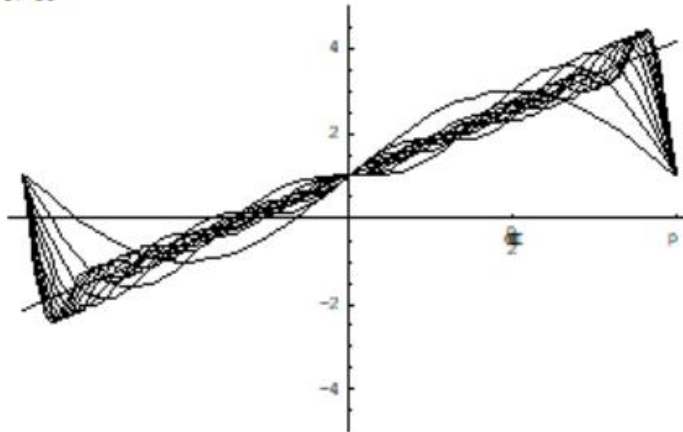values as n increases. Problem 4.8 chapter 7, Mary Boas second edition
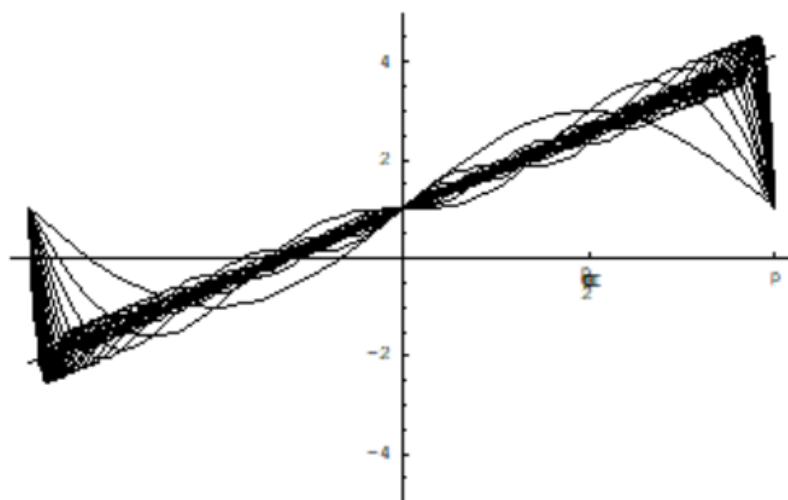
This is fourier series for
F(x)=1+x

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