Math 120 – Week 11 Assignments
Spring 2003

Monday April 7 *Class 27*:

Alternating Series Test. We shall learn how to prove convergence for series whose terms alternate in sign.

Homework:
Quiz #9: Infinite Series
Due on Wednesday in *Class 28*

Wednesday April 9 *Class 28*:

L'H*ôp*ital's Rule. We have to take a lot of complicated limits when using the Root Test and the Absolute Ratio Test. We shall review how to evaluate indeterminate limits of the form $\infty \cdot 0$, ∞/∞ and $0/0$.
Homework #15: (6 points)
Smith & Minton, page 664-665: 7, 8, 19, 20, 25, 26
READING: *Smith & Minton*, "Alternating Series" Section 8.4 (pages 658-664)
Due on Friday in *Class 29*

Thursday April 10 *Lab 7* :

Taylor Series We shall introduce the concept of Taylor Polynomials. These are polynomials which use information about a function $f(x)$ and its derivatives at a point to approximate the function away from that point.
Lab 6 Due Today

Friday April 11 *Class 29* :

Introduction to Taylor Series. We shall examine the concept of a power series, and concentrate on a special case: the Taylor series for a function $f(x)$ at a point $x = a$
Homework #16: (6 points)
Smith & Minton, page 519: 17, 18, 20, 25, 26, 36
READING: *Smith & Minton* "Indeterminate forms and L'Hopital's Rule" Section 7.6 (pages 596-603)
Due on Monday in *Class 30*