

# Calculus III Honors Spring 2012

## Homework 8

Due: Wed. Apr. 11, start of class

**Instructions:** Please read the homework policies and guidelines posted on the course webpage. You may *not* use a calculator (or computer) except where stated. Make sure to write your name, course and section numbers in the top right corner of your solution set, as well as the assignment number on top. Page/section numbers refer to the course text.

### Reading

Sections 12.8 and 12.9.

### Conceptual Questions

1. What is the best convergence test to use for a power series? Why?
2. What is the relationship between power series and polynomial approximations to functions?

### Written Assignment

Total: 100 points. Each problem is worth 10 points unless otherwise noted.

**Section 12.8:** 3, 9, 13, 25, 32, 33 (5 pts), 37, 42 (5 pts)

**Section 12.9:** 4, 9, 11