

# Calculus I (MATH 1823-030) Fall 2010

## Homework 1

Due: Mon. Aug 30, 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 discussion section numbers (e.g., MATH 1823 - 031 if you are in discussion section 31) 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.

### Step 1

*As in the instructions above*, read over the Course Guidelines on the course website, as well as the Homework Guidelines spelled out at the top of the "Homework" page. If you have any questions, please contact me or your TA.

### Step 2

Fill out the "Survey," listed under the "Quizzes" section of the D2L course page, to help me get to know you.

### Step 3

Go through the diagnostic tests A – D at the beginning of the text to check up on your mastery of prerequisite material. If you have difficulty with some of the problems, consult the appendices at the end of the books. If there are still some topics you do not understand, please consult with me or your TA.

### Step 4—Reading

Read pp. 2–9 (A preview of calculus). If needed to do the problems below, read Section 1.1.

### Step 4—Written Assignment

Write up and turn in your answers to the following problems.

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

**Problem A.** Which problems did you have difficulty with on the diagnostic tests?

**Problem B.** (5 pts) What is the difference between  $\{1, 2, 3\}$  and  $\{1, 2, 3, \dots\}$ ?

**Problem C.** For each of the graphs in Exercises 5–8 on p. 21, state whether it is the graph of a function or not.

**Section 1.1:** 1\*, 26 (5 pts), 47, 49, 50, 64, 65, 68

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\*Recall for the text, range means all values obtained by the function—c.f. p. 11—what we call image in lecture