Part I (due at the beginning of class Friday, September 12)

This Part I is mostly questions—the only reading involved is reading the question themselves.

1. Finish through problem 3 on the Limit Laws handout if your group didn't finish it in class. You do not need to do problem 4. You will not turn this handout in, so do the next two questions on a separate sheet of paper that you will turn in.
2. What does "continuous" mean in everyday speech?
3. Sketch a graph of a function that you think is continuous and a function that you think is not continuous. What's different about the two graphs? How can we use limits to describe what's going on in each graph?

Recall, what you turn in for Part I should have 3 subparts, as mentioned in the syllabus:

(a) Your response(s) to the reading question(s).

(b) Your own questions/comments on the reading.

(c) The amount of time you spent on Part I (including the time spent reading/watchinh).

Part II: WeBWorK (due Saturday, September 13, by 11 PM)

Click here for your WeBWorK assignment. Complete the DW 5 WeBWorK assignment.

Part III: Homework Problems (due Wednesday, September 17 at the beginning of class)

Review the homework guidelines and the sample homework in the syllabus to ensure that the solutions you turn in meet the guidelines.

1. For each part below, sketch a graph of one function that has all the characteristics given in that part (so one function for (a), one for (b), etc.). Please label your axes clearly on your graphs.

   (a) $h(x)$ such that
   - $h(0)$ is undefined
   - $\lim_{x\to 0} h(x) = 4$
   - $h(2) = 6$
   - $\lim_{x\to 2} h(x) = 3$

(b) $f(x)$ such that

- $f(-2) = 2$
- $\lim_{x \to -2} f(x) = 1$
- $f(-1) = 3$
- $\lim_{x \to -1} f(x) = 3$
- $f(1)$ is not defined
- $\lim_{x \to 1} f(x) = 0$
- $f(2) = 1$
- $\lim_{x \to 2} f(x)$ does not exist

(c) $g(x)$ such that

- $g(-2) = 3$
- $g(-1) = -1$
- $g(1) = -2$
- $g(2) = 3$
- At $x = -2, -1, 1$, and 2, g has a limit and its limit equals the value of the function at that point.
- $g(0)$ is not defined
- $\lim_{x \to 0} g(x)$ does not exist

Friday's mini-Celebration of Learning

Friday's mini-Celebration of Learning, which will be during the last 10–15 minutes of class, will be your first opportunity to earn an M for Learning Targets L1 and L2.