Part I (due at the beginning of class Wednesday, October 1)

Finish the Introduction to Derivatives handout through problem 10. Bring your questions on this handout to class on Wednesday.

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/watching).

Part II: WeBWorK (due Saturday, October 4, by 11 PM)

Click here for your WeBWorK assignment. Complete the DW 12 WeBWorK assignment.

Part III: Homework Problems (due Friday, October 3 at the beginning of class)

1. Each of the following limits is the derivative of some function $f(x)$ at some number a. For each one, identify both the function $f(x)$ and the number a.

   (a) $\lim_{h\to 0} \dfrac{\sqrt[3]{3+3h} - \sqrt[3]{3}}{h}$

   (b) $\lim_{x\to \pi} \dfrac{2\cos(2x) - 2}{x - \pi}$

2. Suppose that $f(-1+h) - f(-1) = 6h^3 + 3h^2 - 2h$.

   (a) Find the slope of the secant line through $(-1, f(-1))$ and $(3, f(3))$.

   (b) Find $f'(-1)$.