Part I (due at the beginning of class Monday, December 1)

Finish the Net Change as the Integral of Rate handout.

Part II: WeBWorK (due Saturday, November 29, by 11 PM)

Click here for your WeBWorK assignment. Complete the DW 33 WeBWorK assignment.

Part III: Homework Problems (due FRIDAY, December 5 at the beginning of class)

1. Suppose that the growth rate in ounces per week of a baby is given by $w'(t)$. Explain in words what $\int_5^{10} w'(t)\,dt$ represents.
2. A vegetable nursery sells bell pepper plants after 6 weeks of growth and pruning. During those 6 weeks, the growth rate is given by $h'(t) = \frac{3}{2}t + 5$, where t is the time in weeks and h is the height of the plant in millimeters. When the plants are originally planted (at time $t = 0$), they are 12 mm tall.

   (a) Find the height of a pepper plant after t weeks.

   (b) How tall are the pepper plants when they are sold?

   Bonus: Sketch a graph of a decreasing function $f(x)$ such that both $f'(x)$ and $A(x) = \int_0^x f(t)\,dt$ are increasing. Clearly explain why your function works.