In this homework you will apply basic skills from several previous days to a new kind of word problem. The basic skills you need include:

- Quick symbolic derivatives. The complete list of quick rules is available from Lesson 3-2 Notes and Learning Goals.

- From Homework 3-3 Applications, a good understanding of what can or can’t be substituted or set equal to in a formula.

- From this week’s WebAssign homework, the ability to obtain function data and rate of change data by looking at a graph.

There are also some new features for today.

1. All problems will include unknown constants.

2. You will use techniques from Lesson 3-3 to set up equations. But instead of solving for time or function data, you will solve for unknown constants.

3. Some problems may ask you to solve for time or function data along with unknown constants.

4. All problems will involve units. You might have to figure out the units from algebraic principles. Here is an introduction.