

READING ASSIGNMENT FOR AUGUST 30

SECTIONS 2.5 AND 2.6

2.5 Constant Acceleration

- You will be expected to know and be able to use the three equations of motion on page 45 for the *rest* of your physics studies. For now, learn them and try to understand what they mean. We'll practice using them in problem solving in the next section.
- For constant acceleration, the velocity-versus-time graph is a straight line and the position-versus-time graph is a parabola.

2.6 Solving One-Dimensional Motion Problems

- Don't be fooled by the fact that this reading assignment is a single section! This is one of the most challenging aspects of physics. Read carefully and go over the examples. We'll augment this with as many examples as possible in lecture.
- The very first sentence says a lot - you have to translate the words in a problem into the symbols that are in our equations.
- A good physics picture includes doing the following:
 - Sketching the object's motion at "interesting" points in the motion - at the beginning of the problem, at the end of the problem, and at any points in the middle where the acceleration changes from one constant value to another.
 - Establishing your coordinate system - this gives you your zero values, as well as, positive and negative values.
 - Defining your symbols - both known and unknown.
- In solving, *i.e.*, figuring out which equation to use - look for the equation with the fewest number of unknown variables.
- It does make sense to think about whether your answer makes sense.