

# PHYSICS 160 READING

## ASSIGNMENT FOR JANUARY 28

### SECTIONS 2.4 - 2.5

#### 2.4 - Motion with Constant Acceleration

- This section is deceptively short. We'll spend a lot of time on developing problem-solving skills in lecture, so be prepared.
- Study the derivations for the equations of motion for your own understanding. I'm not going to spend much time in lecture deriving them.
- When you want to know how far something has traveled when it is accelerating you *have* to use equation 2.12 or 2.13.

#### 2.5 - Freely falling Bodies

- Free fall - an object moving doing to gravity only, *i.e.*, no air resistance.
- The acceleration due to gravity,  $g$ , is a constant you will be expected to know for the rest of the term. (Actually, for the rest of your life.)
- $g$  is always a positive number, we put any needed negative signs in by hand.