Monday Oct 17 Physics
1) Try This Word Problem in Class:
Marvin the marble starts from rest with an acceleration of 3 m/s^2. Sammy the sphere starts 2 m behind him with an acceleration of 5 m/s^2. How far does each travel before they collide?

2) Go over any questions from pg 55, 58 (check answers)

3) Finish questions on and hand in Ramp Lab…

4) Wed/Thur Start Balls Collide (as part of Ramp Lab) so read ahead!

5) Homework, Word Problems on back (do on separate paper please)

6) Get yellow light project tomorrow/Thur
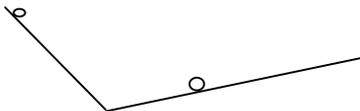--
Ball1 rolls down a 2m ramp in 3 seconds.
What is its initial velocity?
What is its average velocity? (Eq 1 or 2)
What is its final velocity? (Eq 1 or 2)

What is its acceleration? (Eq 3 or 4)

Ball2 rolls down a shallower 2m ramp in 4 seconds.
What is its initial velocity?
What is its average velocity?

(Eq 1 or 2)
What is its final velocity? (Eq 1 or 2)
What is its acceleration? (Eq 3 or 4)

If I want Ball2 to collide into Ball1, what will be the same between them?

Use the TIME of Ball1 and the ACCELERATION of Ball2 and find the Distance I have to place Ball2 at to make it crash into Ball2

A speeder passes a parked police car at a constant 30 m/s. The police car starts from rest with a uniform acceleration of 2.44 m/s^2.

      a) How much time passes before the speeder is overtaken by the police car?

      b) How far does the speeder get before being overtaken by the police car?

I am 50 meters away from an intersection that is 10 m across going 20 m/s. I see the light turn yellow. My car can accelerate at the rate of 3 m/s^2. What is the shortest time I can make it across the intersection?

4) I start off going 50 m/s and deaccelerate at the rate of -2 m/s^2. How far do I have to travel before I stop?

**** (H)When will I be 35 m from the start?

****(H) One car (Frank) starts 4 meters ahead of another (Bob) . They both accelerate at the rate of 3 m/s^2. If car one (Frank) stops accelerating after 4 meters, when will car two (Bob) catch up to him?