A-Day: due Thurs., Aug. 31 (Assigned 8/29) **Measuring 6** **Mr. Murray's Regular Physics**
B-Day: due Fri., Sept.1 (Assigned 8/30)

For the LAST time:

1. Do the following math calculation. Give your answers with the correct number of significant figures.

A. 200.1 x 8 =
B. 54.02 + 4 =
C. 19.0004 – 6.2 =
D. 1,000,000 – 0.0056 =
E. 6.0045 ÷ 3.1 =
F. 0.0030 x 2.567 =

(1,000,000 m = 1 Megameter; 100 cm = 1 m; and 1000 m = 1 km)

2. Convert 0.025 km to centimeters.

3. Convert 55 mph to m/sec (1 mi = 5280 ft; 1 m = 3.3 ft).

$$v = \frac{\Delta x}{t} \qquad \Delta x = x_f - x_i \qquad a = \frac{v_f - v_i}{t}$$

FOR THE FOLLOWING PROBLEMS: You MUST assign variables on the left and give me the equation.

4. An object moves from –2 m to + 6 m in 8 seconds.
   A. What is its displacement (Δx):
   B. What is its velocity?

   C. So, when an object moves from a negative position to a positive position, Δx is + or -? And Δv is + or -?

5. An object at rest begins moving toward the left.
   A. Its original velocity is?
   B. Its final velocity is + or -?
   C. Its change of velocity is + or -?
   D. Its acceleration, then is + or -?

6. An object going –12 m/s stops in 4 seconds.
   A. Its original velocity is?
   B. It's final velocity is?
   C. Give your variable list and equation and solve for the acceleration.

7. An object going –4 m/s ends up going –16 m/s in 3 seconds. Find the acceleration.

8. (Same process, just a simple twist.) An object feels 3 m/s^2 of acceleration for 2 seconds. If it starts at 4 m/s, find its final velocity. (Use the same equation, just solve for v_f.)

9. A person tells you that they are concerned about global warming. So they decide that they are not going to cut down any trees, but instead they will plow down a large grass field, which won't affect global warming. Respond.

10. To save energy you want shade in the summer and sun in the winter. What kind of trees will you plant. *(I'm NOT looking for a biome, but a kind of trees.)*