A-Day: due Tues., Aug. 29 (Assigned 8/25)
B-Day: due Wed., Aug.30 (Assigned 8/28)

Measuring 5

Mr. Murray's Regular Physics

Closed-toed shoes; closed-toed **shoes**; closed-**toed** shoes; **closed**-toed shoes; closed-toed shoes; closed-toed shoes**;** closed-toed shoes; closed-toed shoes

1. How many significant figures do the following have?

A. _____ 10	C. _____ 10.00	E. ____ 0.000500	G. _____108.0
B. _____ 10.	D. _____ 0.0005	F. ____ 8.305	H. _____45000

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

A. 10 + 9.456 =	C. 100 x 1.224 =	E. 12.3 + 16 =
B. 901 x 7 =	D. 90.010 – 23.1335 =	F. 109000 ÷ 52 =

3. Knowing that 1,000,000 m = 1 Megameter and 100 cm = 1 m, convert 0.0056 Mm to centimeters.

4. Convert 4500 m/sec to meters/hr.

5. Positive or negative?

A. __ The velocity of a car moving to the right.	C. ___ The displacement of a car moving to the right.	E. __ The acceleration of a car slowing down, but moving to the right.
B. __ The velocity of a car moving to the left.	D. ___ The displacement of a car moving to the left.	F. __ The acceleration of a car speeding up, but moving to the left.

6. (AGAIN—a neg times a neg = a pos) An object going –5 m/s, end up going –10 m/s. This happens in 3 seconds.
   A. Both velocities are negative. Is the object moving to the right or to the left?
   B. Thinking of a number line ("I ♥ # lines!"), is the change between the velocities positive or negative?
   C. So, if acceleration is how fast you change speed, is the acceleration positive or negative?
   D. Solve for the acceleration. You MUST do it like on "How to Solve Equations": variables, equation, etc.

7. An object's initial position is 2 meters away. Its final position is 18 m away. What is its displacement?

8. An object goes around the outside of a circle of radius 3.2 meters. If it ends up back where it started?
   A. What is its displacement?
   B. What is the distance it traveled?

9. If a car is at a stop sign and accelerates to 20 mph in 2 seconds, its acceleration is 10 mph per _____.

10. When an object goes from rest to 10 m/s in 2 seconds its acceleration is 5 m/s per ___.
11. Do the algebra:
    (You're welcome, John.)
    $$\frac{\text{m}}{\text{sec}} \div \text{sec} = \frac{\text{m}}{\text{sec}} \times \left(\frac{1}{\text{sec}} \right) =$$

12. Why are protecting wetlands so important for us, not just for wildlife?

13. Shipping companies typically use rivers to move cargo (much cheaper by ship). Much of their cargo comes from overseas including toxic chemicals and oil. This cargo is usually transferred in the midst of what delicate biome? (*Think: shipping companies transfer cargo from the ocean to river barges. What biome is between them?)*