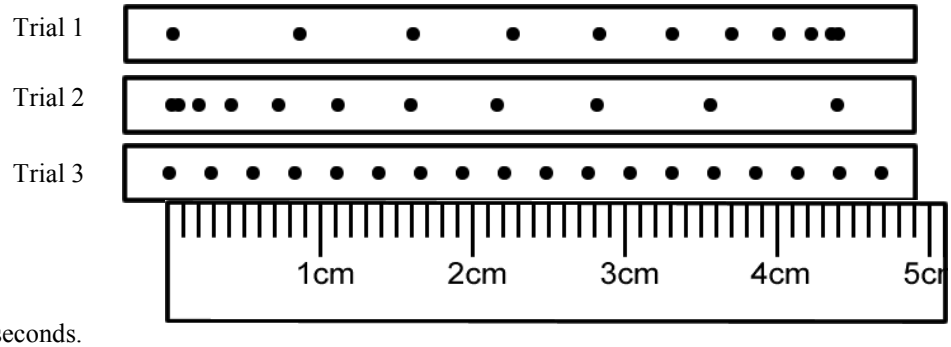
A-Day: due Thurs., 9/7 (Assigned 9/5)
B-Day: due Wed., Sept.6 (Assigned 9/1)

Measuring 8 **Mr. Murray's Regular Physics**

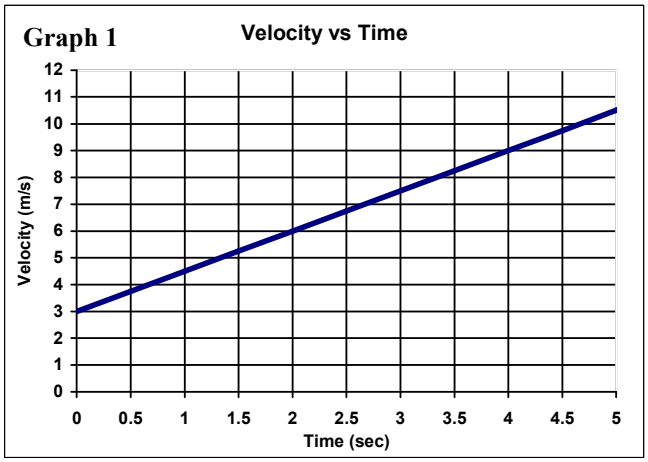


Use the three tape timers at the right to answer the following questions.

1) Which one shows constant velocity?
2) Which one shows positive acceleration?
3) Which one shows no acceleration?
4) Which one shows negative acceleration?
5) Which one shows an object speeding up?
6) Which one shows an object slowing down?

7) Using Trial 1 only. If each of the dots is 0.2 seconds.
   A. How much time is there between the first and last dot?
   B. What is its displacement during that time?
   C. Calculate the velocity of the object in Trial 1.

Use Graph 1 to answer questions 8-13.

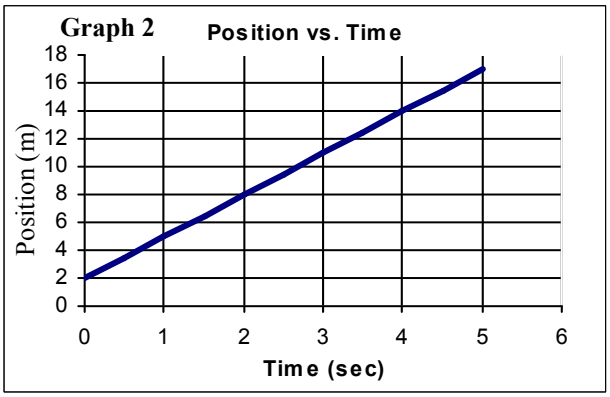


8) What does the slope of the line mean?
9) What does the y-intercept mean?
10) What would the area of the graph mean? (remember that area = LxW)
11) Find the slope.

12) Write the linear equation for Graph 1.

13) When will the object on Graph 1 be going 22 m/s?

Use Graph 2 to answer questions 14-16.



14) What does the slope mean?
15) Find the linear equation for Graph 2.

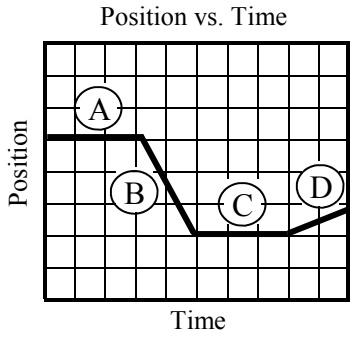
16) Where will the object be at 11 seconds?

Hint: use your kinematic equations!

17) An object at rest feels a force that gives it an acceleration of –5 m/s^2. How far does it travel in 6 seconds?

18) An object going 3 m/s feels an acceleration for 4 seconds. If during this time it travels –16 m, find the acceleration.

Use Graph 3 to answer questions 19-23.



Which line segment or segments show the object ...

19) at rest?
20) going fast?
21) going slow?
22) going backwards?
23) going forward?

24) Burning fossil fuels (like _____) contributes to what problem with our earth?

25) Why does loss of habitat affect future generations of animals? (Other than "extinction.")