# 2009 Linear Motion 6

1. A. If a car is moving 8 m/s and turns a corner without changing speed, is it accelerating?
    B. Why or why not?

2. A. If an object is moving to the right, is its velocity is + or −?
    B. If it has a positive acceleration is it speeding up or slowing down?
    C. If it has a negative acceleration (and still moving to the right) is it speeding up or slowing down?

3. The graphic shows an object moving to the right. A, B, and C show where it *COULD* be at 3 seconds.
    i._____   Where will it be if it has a positive acceleration?
    ii. _____   Where will it be if it has a negative acceleration?
    iii. ____   Where will it be if it has no acceleration?
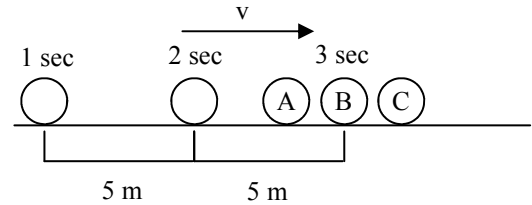
4. Write the following in scientific notation.
    A. 13,000,000   B. 0.0000034

5. Write out 8.5×10^5

6. A. The slope of a position vs. time graph tells you what about the object?
    B. The y-intercept of a position vs. time graph tells you what about the object?
    C. The slope of a velocity vs. time graph tells you what about the object?
    D. The y-intercept of a velocity vs. time graph tells you what about the object?

7. Order the following metric units from largest to smallest: millimeters; micrometers; megameters; kilometers; meters; centimeters.

8. An object is dropped and falls for 1.5 seconds before it hits the ground.   How high was the desk?

9. A car moving 25 m/s stops in 5 seconds. How far did it move before it stopped?

10. An airplane is flying 250 m/s. How long does it take the plane to go 23,000 meters?

11. Translate the position vs. time graph to the other two graphs. Use actual numbers.
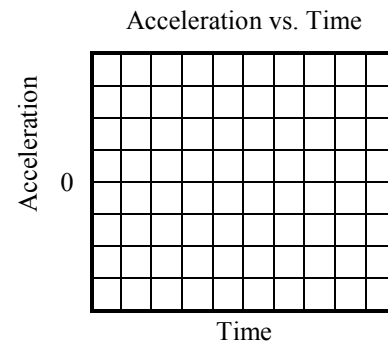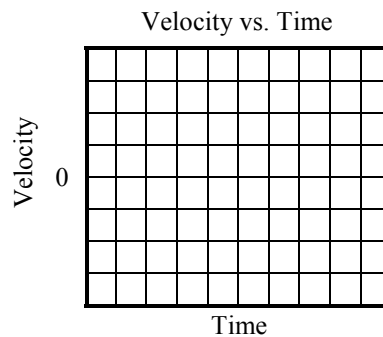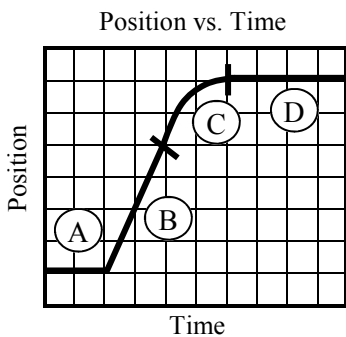
12. Use the linear equation to find how fast the object on the
graph will be going 132 m/s.

Also study Conversions and DNA.   Redo homework.
Use the interactive study helps on the website.

Velocity vs. Time