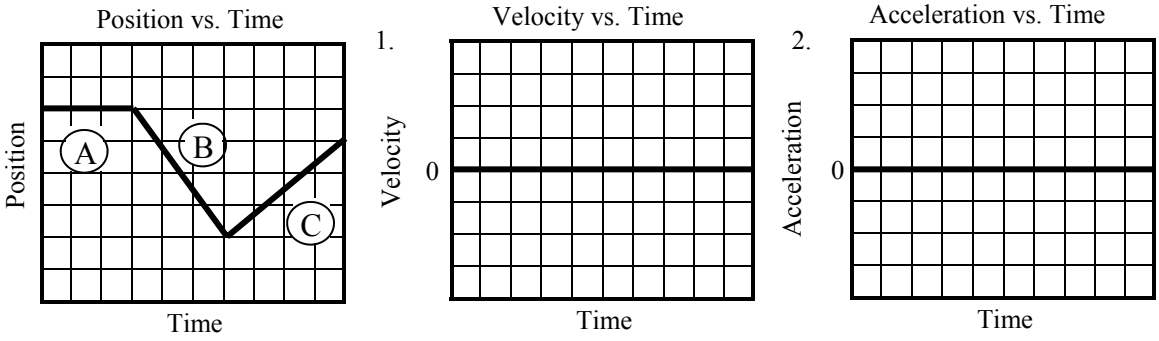
**PreAP: due Wed., Sept 1 (Assigned: Mon., Aug 30)**
**Reg: due Thurs., Sept 2 (Assigned: Tues., Aug 31)**

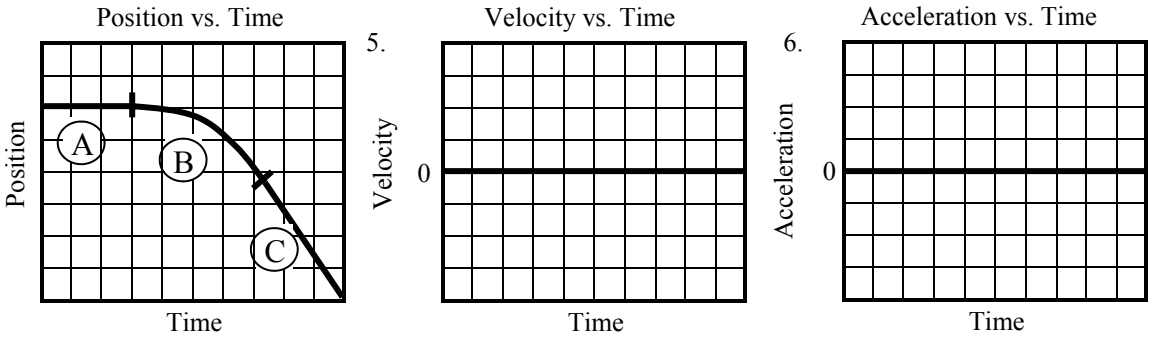
# More Graphs and Intro to Free-fall

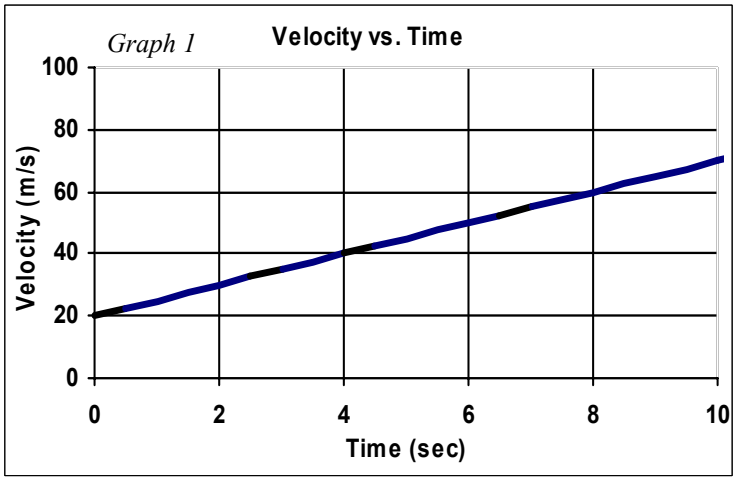
Translate these position vs. time graphs to the other two graphs on the right.




3. The slope of a position vs. time graph is:

4. The slope of a velocity vs time graph is:




7. What does the area under this graph show?

8. On Graph 1, find how far the object went until 8 seconds (find the area).

9. When will the object in Graph 1 reach 64 m/s?
*(Show all work: find the slope, y-intercept, put in y-int form, etc..)*

***Use the notes: "Intro to Free-Fall" to answer the following questions:***

10. An object in free-fall always has what acceleration?

11. An object that is dropped always has what initial velocity?

12. When will a dropped object always have the greatest velocity?

13. An object is dropped 15 meters. Find its final velocity just before it hits the ground.

14. You need to keep soil from eroding quickly. What kind of biome would be easiest to start?

15. To save electricity your house needs shade in the summer and sun in the winter. What kind of trees will you plant?