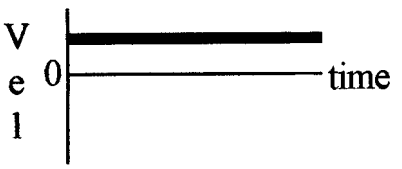
Chapter 2 Quiz Velocity - Time Graphs A **Name** _____

1. How do you move to create a horizontal line in the positive part of a velocity-time graph at the right? (2)



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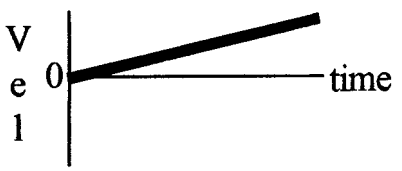
2. How do you move to create a straight-line velocity-time graph that slopes upward as shown at the right? (2)



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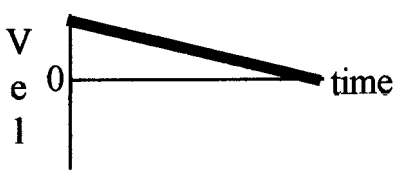
3. How do you move to create a straight-line velocity-time graph that slopes downward shown at the right? (2)



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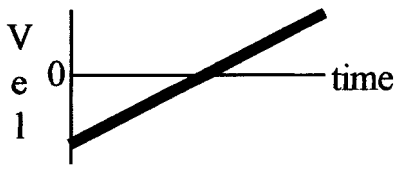
4. How do you move to create a straight-line velocity time graph that slopes upward as shown at the right? (2)



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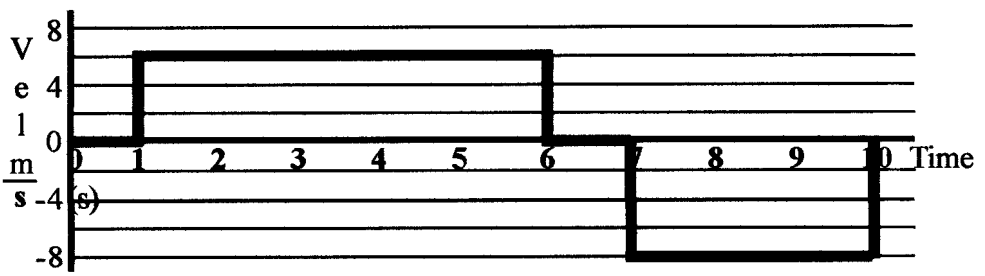
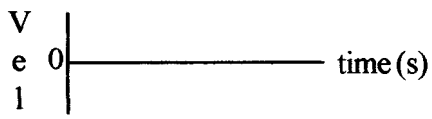
5. The velocity-time graph of the movement of an object is shown at the right. (4)
The distance traveled is _____.
The displacement is _____.

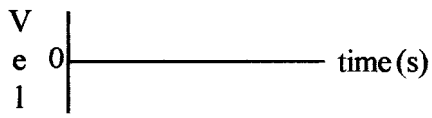


Sketch v-t graphs corresponding to:

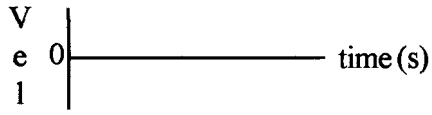
6. Object moving away from the origin at constant speed. (1)



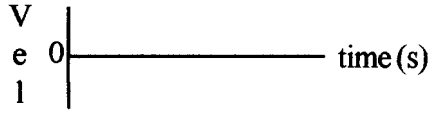
7. The object is accelerating in a positive direction. (1)



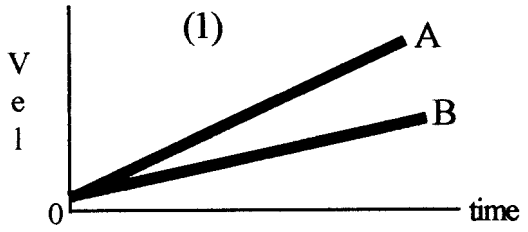
8. The object moves toward the origin at a constant speed for 1/4th the time, stands still for 1/4th the time and then moves away at constant speed in the remaining time. (2)



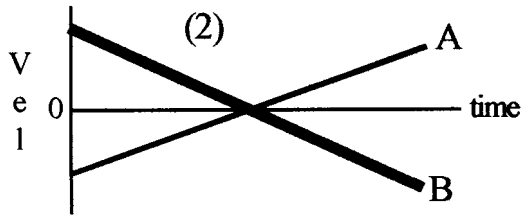
9 The object moves toward the origin at a constant velocity for half the time, reverses direction and moves away from the origin at the same speed in the other half. (2)



10. Both of the velocity graphs below, 1 and 2, show the motion of two objects, A and B. Answer the following questions separately for graph 1 and graph 2. (8)
    a. Is one acceleration greater than the other one? If so, which is greater, A or B?
    b. What does the intersection where the two graphs intersect with each other indicate?
    c. Which object is ahead? Explain why.
    d. Does either object, A or B, reverse direction? Explain



a. _____
b. _____
_____
c. _____
_____
_____
d. _____
_____
_____
_____



a. _____
b. _____
_____
c. _____
_____
_____
d. _____
_____
_____
_____

11. Draw careful graphs below of distance-time and velocity for a car that: (10)
    a. moves away from the origin to the 2 meter mark at a slow, constant speed for the first 5 seconds.
    b. moves away at a medium-fast, constant speed of 0.8 m/s for the next 5 seconds.
    c. moves toward the origin at a slow, constant speed of 0.5 m/s for the next 5 seconds.
    d. stands still for the next 3 seconds.
    e. moves toward the origin at a slow, constant speed of 0.5 m/s for the next 5 seconds.