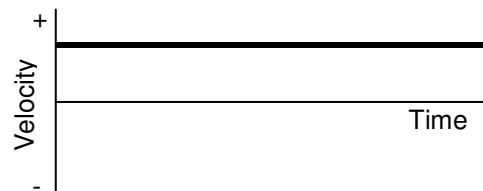


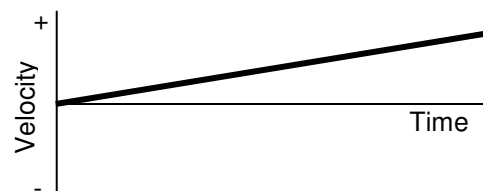
1. How do you move to create the graph to the right?

walk in the positive direction with a constant velocity



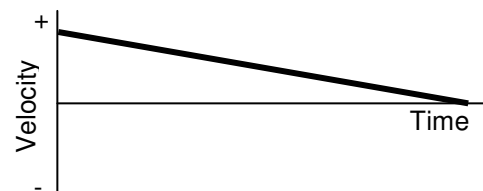
2. How do you move to create the graph to the right?

Starting from rest, walk in the positive direction and increase you velocity at a constant rate



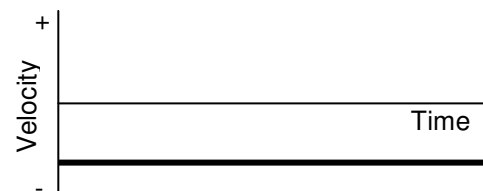
3. How do you move to create the graph to the right?

Walking in the positive direction but decreasing velocity at a constant rate, until you come to a stop



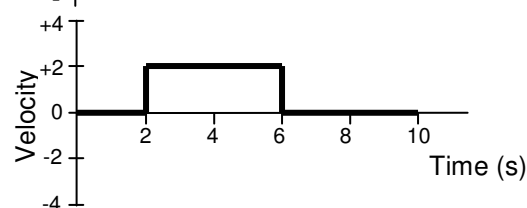
4. How do you move to create the graph to the right?

walk in the negative direction with a constant velocity



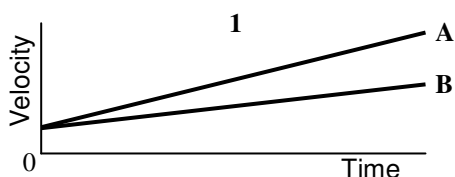
5. The velocity-time graph of an object is shown to the right. Figure out the total distance traveled by the object. Show some work.

It traveled 2 m/s for 4 seconds. 8 m

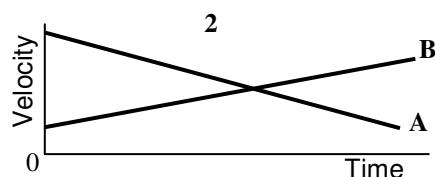


6. Both of the velocity graphs below, 1 and 2, show the motion of two objects, A and B. Answer the following questions separately for 1 and for 2. Explain your answers when necessary.

- Is one faster than the other? If so, which one is faster?(A or B)
- What does the intersection mean?
- Can one tell which object is "ahead"? (define "ahead")
- Does either object A or B turn around? Explain.



- Object A is faster
- both objects had the same velocity at the intersection
- No, we don't if they are at the same general position
- neither object turns around

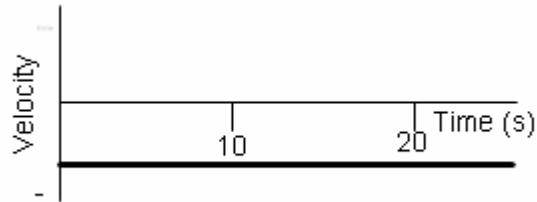
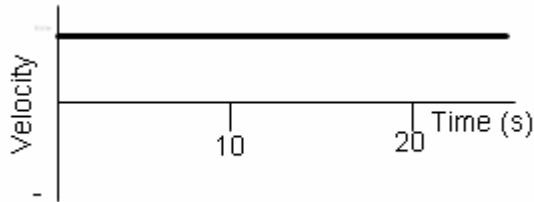


- No, they have different velocities at different times
- The objects had the same velocity at the intersection
- No, we don't if they are at the same general position
- neither object turns around

Sketch velocity-time the velocity-time graph corresponding to each of the following descriptions of the motion of an object.

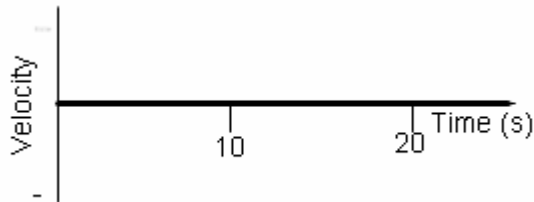
7. The object is moving away from the origin at a steady (constant) velocity.

Could be either one



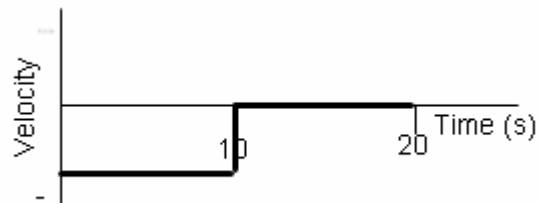
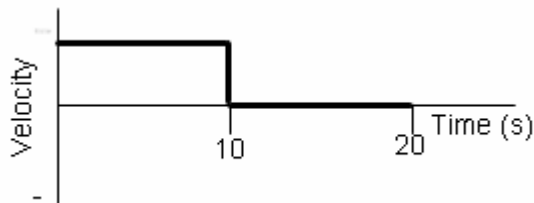
8. The object is standing still.

Line on the x-axis where there is zero velocity



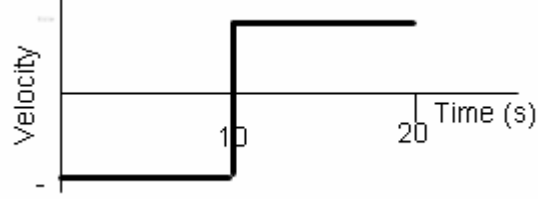
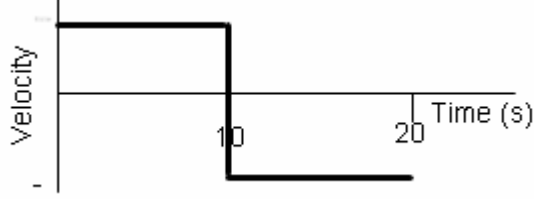
9. The object moves toward the origin at a steady (constant) velocity for 10 seconds, and then stands still for 10 seconds.

Could be either one

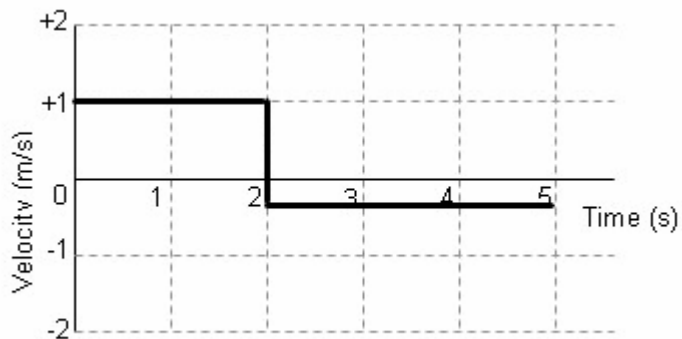
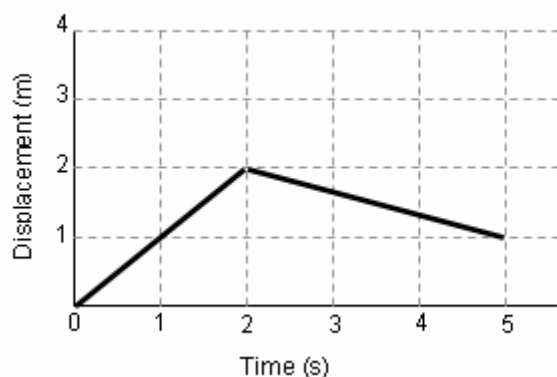
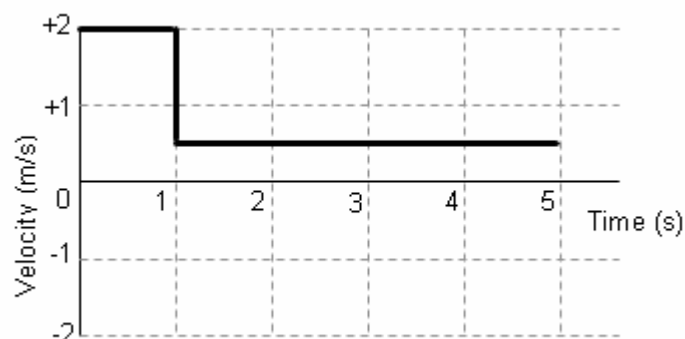
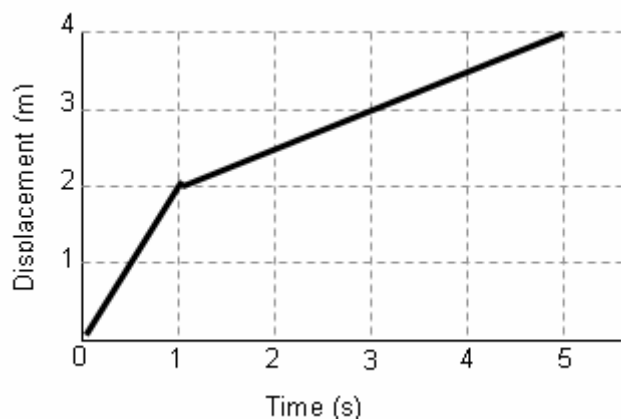
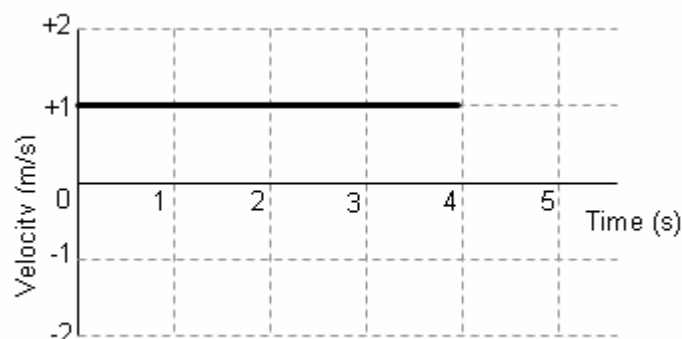
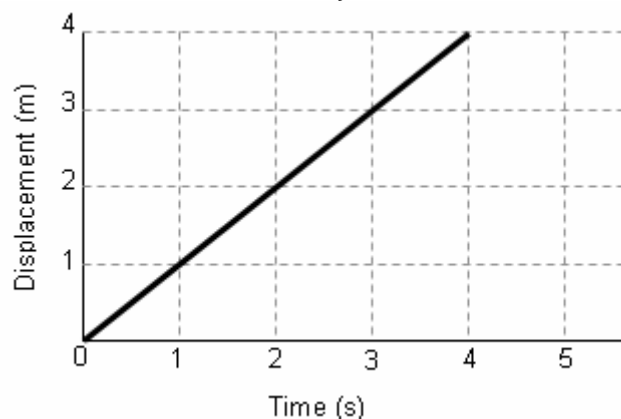


10. The object moves away from the origin at a steady (constant) velocity for 10 seconds, reverses direction and moves back toward the origin at the same speed for 10 seconds.

Could be either one



11. Draw the velocity graphs for an object whose motion produced the displacement-time graphs shown below on the left. Distance is in meters and velocity in meters per second. (That is, the velocity is the number of meters the object would move in one second.)



12. Draw careful graphs below of distance and velocity for a cart that
- moves away from the origin at a slow and steady (constant) velocity for the first 5 seconds.
 - moves away at a medium-fast, steady (constant) velocity for the next 5 seconds.
 - stands still for the next 5 seconds.
 - moves toward the origin at a slow and steady (constant) velocity for the next 5 seconds.
 - stands still for the last 5 seconds.

