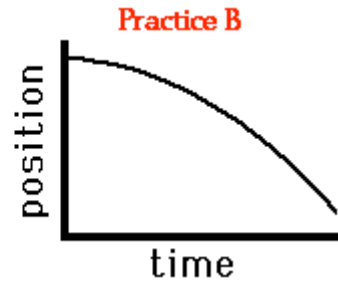
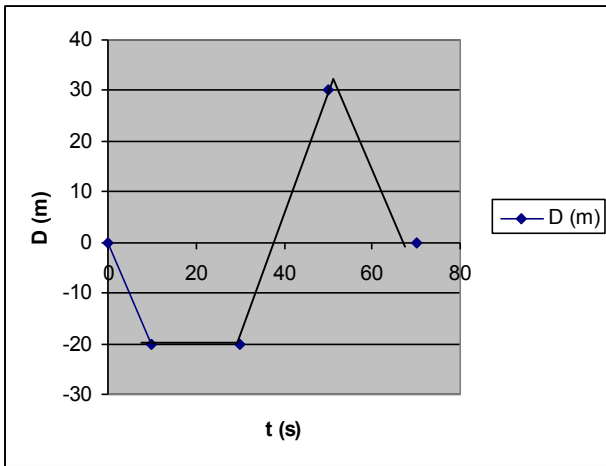


1. Use the principle of slope to describe the motion of the objects depicted by the two plots below. In your description, be sure to include such information as the direction of the velocity vector (i.e., positive or negative), whether there is a constant velocity or an acceleration, and whether the object is moving slow, fast, from slow to fast or from fast to slow. Be complete in your description.



2. Describe the motion of the car shown in Figure B below:



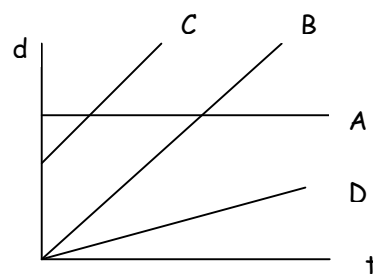
3. Answer the following questions about the car whose motion is graphed in Figure B above.

- a. When was the car 20 m west of the origin?
- b. Where was the car at 50 s?
- c. The car suddenly reversed direction. When and where did that occur?
- d. What is the total distance traveled?
- e. What is the displacement?

4. For each of the position time graphs shown in Figure C,

a. write a description of the motion

b. rank the average velocities from largest to smallest



5. Draw a position-time graph for a person who starts on the positive side of the origin and walks with uniform motion toward the origin. Repeat for a person who starts on the negative side of the origin and walks toward the origin.

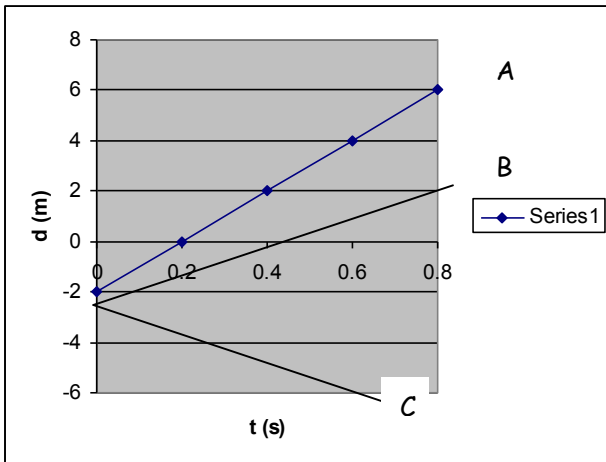
6. Convert the units of the following average velocities.

a. speed of a sprinter: 10 m/s into mph and km/h

b. speed of a car: 65 mph into km/h and m/s

c. speed of a walker: 4mph into km/h and m/s

6. Consider the motion of the biker rider A in Figure below



a. Where will rider A be at 1.0 m/s?

b. How could you figure out the velocity of rider A? Calculate.

c. Describe rider C's motion with respect to the origin.

d. When will rider C be at -10.0 m?

