

# CVP Test Practice Questions

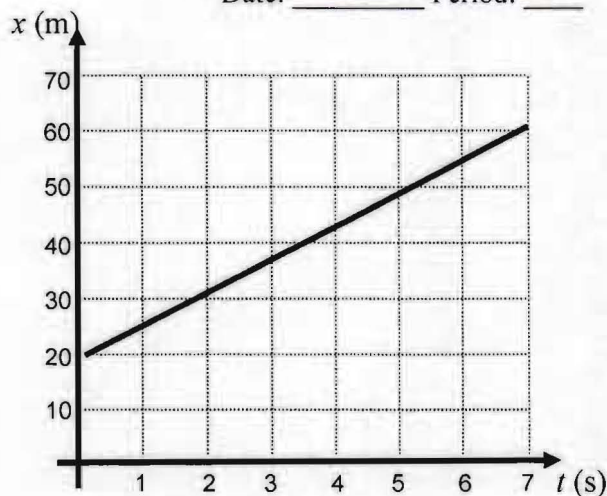
Name KEY  
Date: \_\_\_\_\_ Period: \_\_\_\_\_

1. Consider the position vs time graph at right.  
a. Determine the average velocity of the object.

$$\frac{40\text{m}}{7\text{s}} = \boxed{5.7 \frac{\text{m}}{\text{s}}}$$

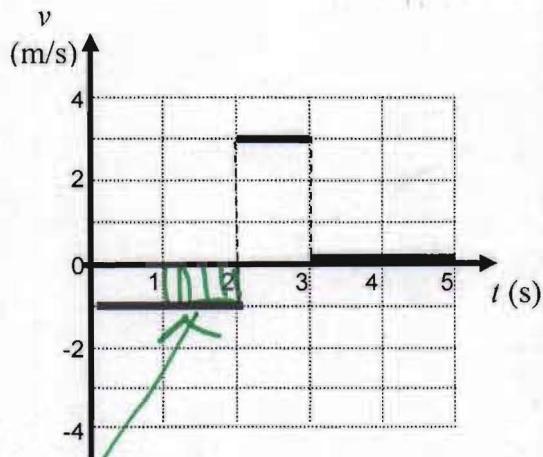
- b. Write a mathematical equation to describe the motion of the object.  $y = mx + b$   $y = 5.7 + 20$

$$\boxed{x(m) = 5.7\left(\frac{m}{s}\right)t(s) + 20(m)}$$



2. Shown at right is a velocity vs time graph for an object.  
a. Describe the motion of the object.

The object moves with a constant velocity of  $-1 \text{ m/s}$  for two seconds, then moves with a velocity of  $+3 \text{ m/s}$  for one second, then stops for two seconds.



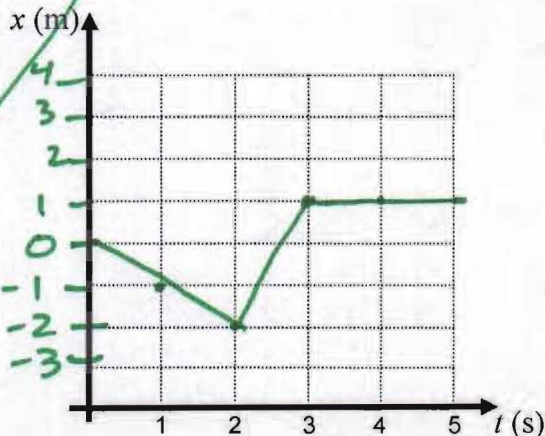
- b. Draw the corresponding position vs. time graph assuming the position of the object was zero at a clock reading of zero. Scale the position axis.

- c. How far did the object travel in the time interval from  $t = 1$  s to  $t = 2$  s? Show your work.

Area =  $-1\text{m}$

$$\boxed{-1\text{m}}$$

(Area is  $-1\text{m}$ )



- d. What is the total displacement of the object during the 5 s? Explain/show how you got your answer.

Total area from 0 to 5s =  $-2\text{m} + 3\text{m} = \boxed{1\text{m}}$

3. You drive from Irondale to Disneyland (1933 miles) in 28.0 hours. You return home by the same route in the same amount of time.

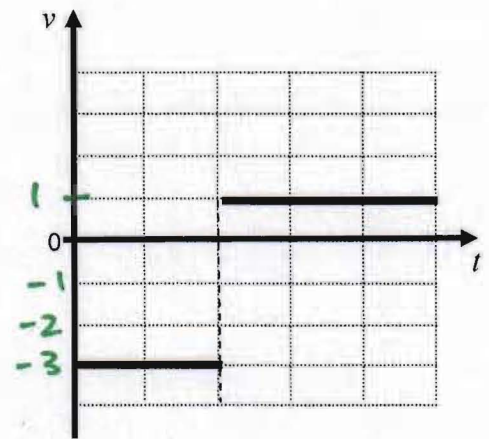
a) Determine your average speed:  $\frac{1933 \text{ mi}}{28.0 \text{ hr}} = \boxed{69 \frac{\text{mi}}{\text{hr}}}$

b) Determine your average velocity:  $\frac{\Delta x}{\Delta t} = \frac{0 \text{ mi}}{56 \text{ hr}} = \boxed{0 \frac{\text{mi}}{\text{hr}}}$

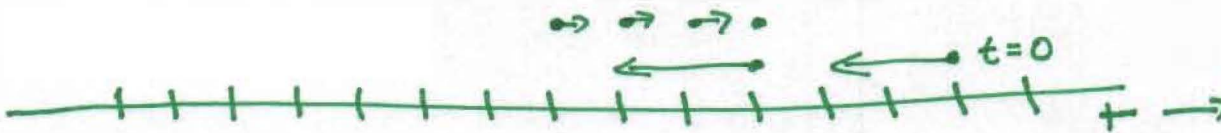
4. Consider the  $v$  vs.  $t$  graph to the right.

a. Describe the behavior of the object depicted in the graph.

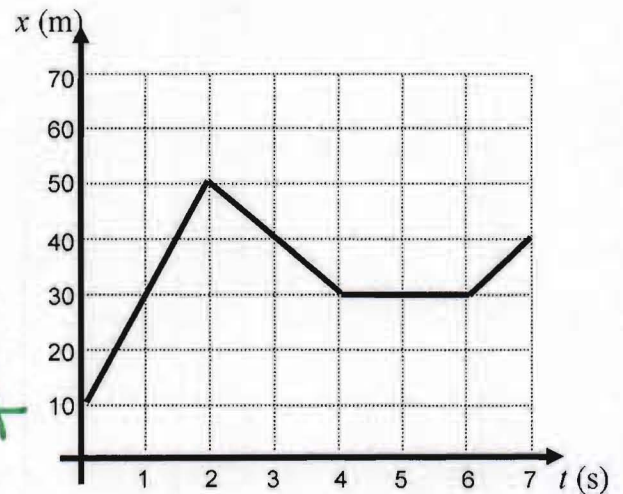
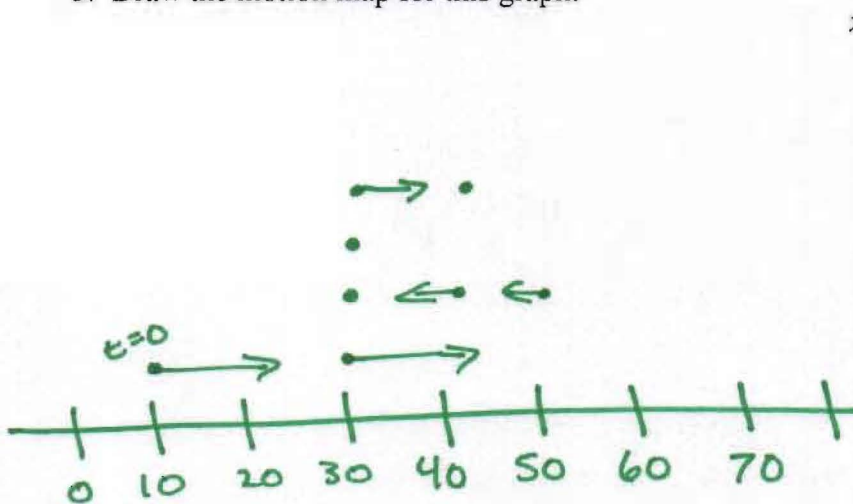
The object moves with a velocity of -3 for 2 seconds, then moves with a velocity of +1 for 3 seconds



b. Draw a motion map that represents the behavior of the object.



5. Draw the motion map for this graph:



6. Sketch the  $v$  vs.  $t$  graph that corresponds with the  $x$  vs.  $t$  graph below:

