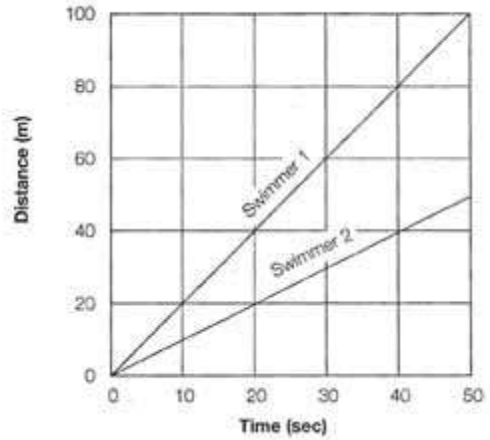
Graphing Practice

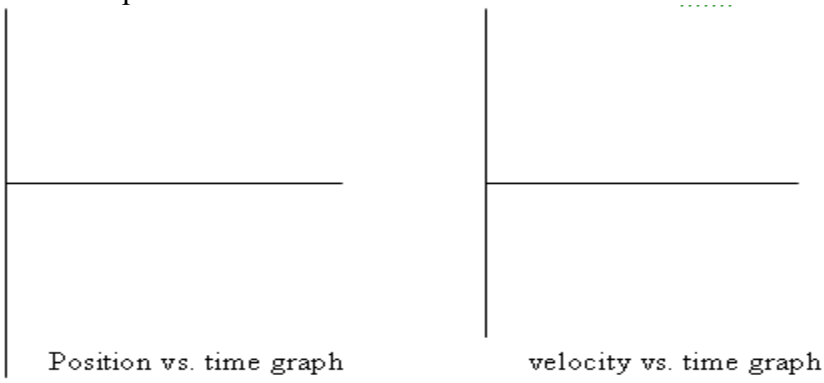
Describe the motion for the following graphs.

USING SCIENCE SKILLS: Interpreting a Diagram



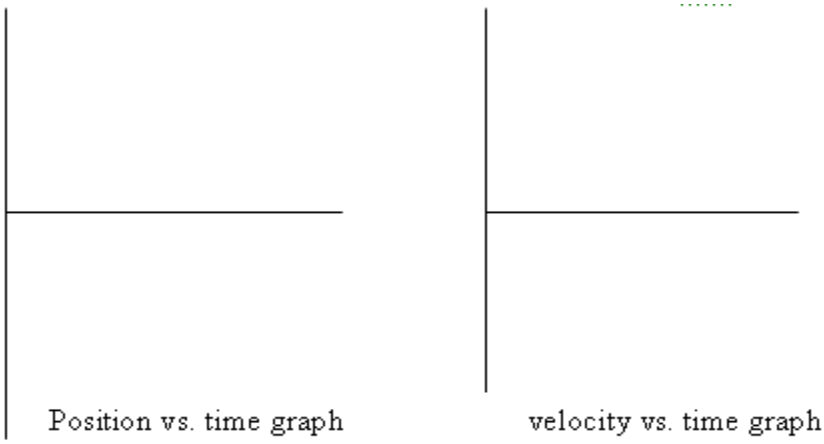
How many meters can Swimmer 1 cover in 30 sec? _____
How far will Swimmer 2 go in 30 sec? _____
Predict the number of m Swimmer 1 can go in 60 sec. _____
Predict the number of m Swimmer 2 can go in 60 sec. _____
Which swimmer has the greatest speed? _____
Calculate the speed of Swimmer 1. _____
Calculate the speed of Swimmer 2. _____

1. Graph an object that is stationary at 1m, moves away at a constant speed, then stops.



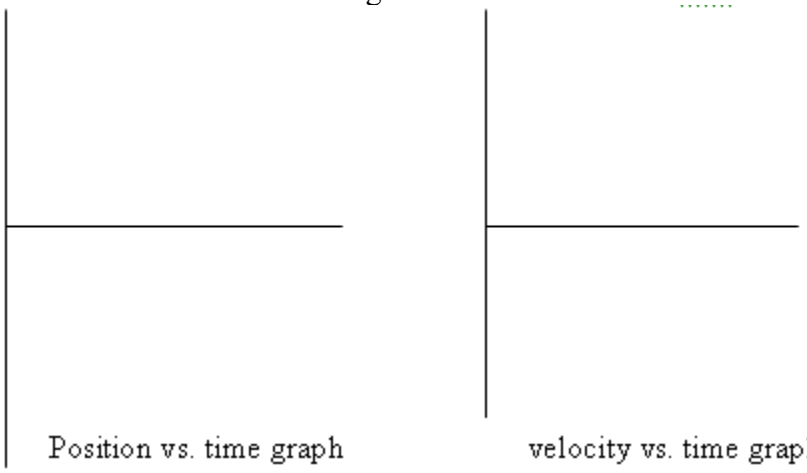
Position vs. time graph velocity vs. time graph

2. Graph an object that starts at 2m, moves forward at a constant speed, stops, and then moves back.



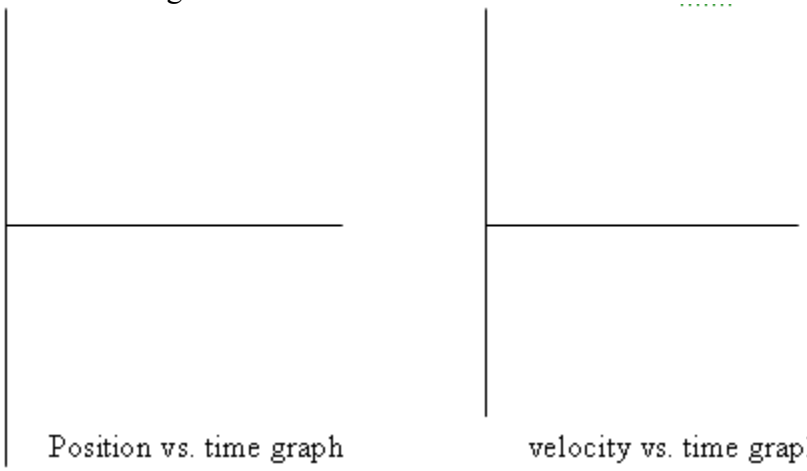
Position vs. time graph velocity vs. time graph

3. Graph an object that starts at the origin, moving away from the origin at a constant rate in the negative direction.



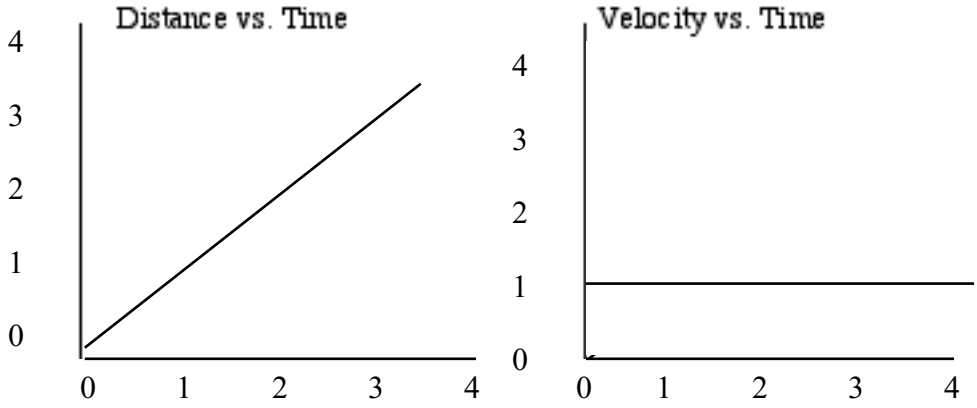
Position vs. time graph velocity vs. time graph

4. Graph an object moving away from the origin in the positive direction that is moving faster and faster.



Position vs. time graph velocity vs. time graph

5. The slope of a graph always tells you the rate of change of the y-axis value.
   a. The slope of a distance (m) vs. time (s) graph gives the _____.
   b. The units of the slope will be _____.
6. Calculate the slope for the graphs below. Write the answer on the blank below and include units!



Slope = _____ Slope = _____

Velocity =_____ Velocity =_____