Kinematics - Position, Displacement, Velocity, and Speed- Quiz 1.0

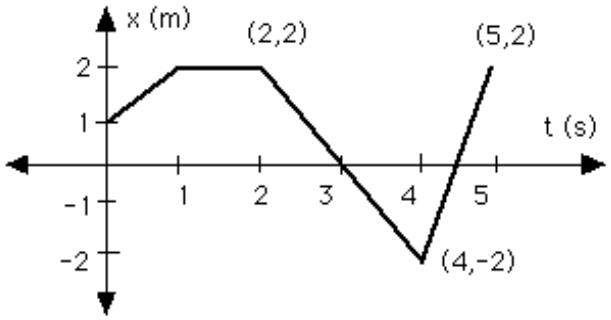
Assume all motion is along a straight line.

1. Motion involves a change in ?
   (a) time (b) position (c) velocity (d) a & b (e) all of the above
2. Displacement from x_1 to x_2 ?
   (a) distance from x_1 to x_2 (b) $x_2 - x_1$ (c) $x_1 - x_2$ (d) all of the above (e) none of the above
3. Average speed is ?
   (a) displacement divided by time (b) the same as average velocity (c) distance from the starting point divided by elapsed time (d) distance traveled divided by elapsed time (e) all of the above

Shown to the right is a position-time graph.
Imagine a particle moving left and right on an x-axis.

4. Complete the table of times and positions.

t	x
0	?
1	?
1.5	?
4	?



5. When (at what instants or over what time intervals) is the particle at rest?

6. Where is the particle when t = 3 sec?

7. When is the particle moving back to the left?

8. What is the average velocity from t = 4 to t = 5 sec?

Shown here is another position-time graph.

9. Find average velocity from t = 0 to t = 3 s?

10. Find average velocity from t = 2 to t = 3 s?

11. Find average speed from t = 0 to t = 3 s?