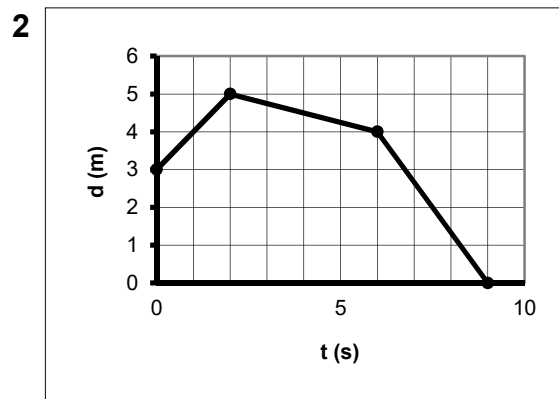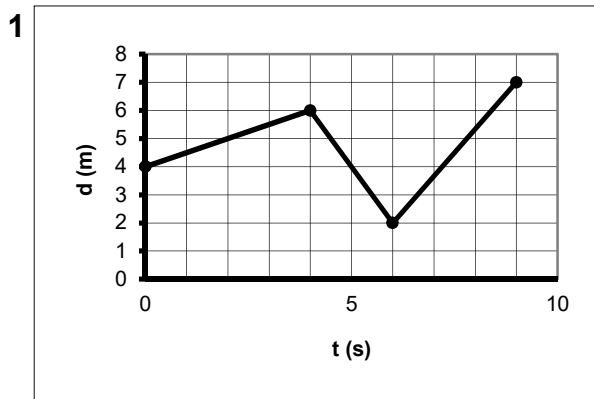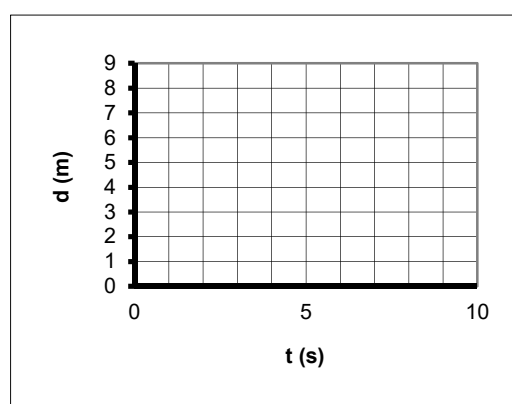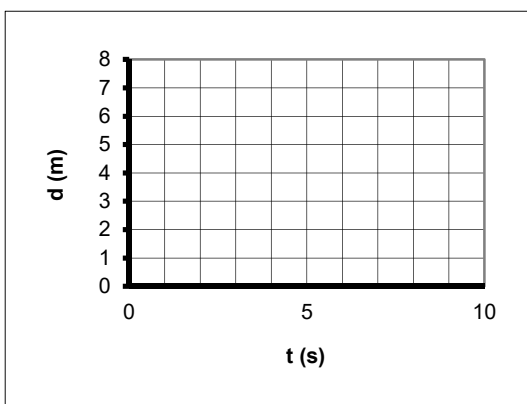# Distance-Time Graphs

For #1 and 2, describe the motion of the object. For #3 and 4, draw the distance-time graphs.

1

2

3 The object starts at the wall. It moves away from the wall at a speed of 1 m/s for 4 s until it is 4 m from the wall. It then moves away from the wall at a speed of 3 m/s for 1 s until it is 7 m from the wall. It stays where it is for 1 s .

4 The object starts at 5 m from the wall. It moves away from the wall at a speed of 0.5 m/s for 6 s until it is 8 m from the wall.. It turns around and moves towards the wall at a speed of 1.5 m/s for 2 s until it is 5 m from the wall.

Answers

1. The object starts at 4 m from the wall. It moves away from the wall at a speed of 0.5 m/s for 4 s until it is 6 m from the wall. It turns around and moves towards the wall at a speed of 2 m/s for 2 s until it is 2 m from the wall. It turns around and moves away from the wall at a speed of 1.67 m/s for 3 s until it is 7 m from the wall. //2. The object starts at 3 m from the wall. It moves away from the wall at a speed of 1 m/s for 2 s until it is 5 m from the wall. It turns around and moves towards the wall at a speed of 0.25 m/s for 4 s until it is 4 m from the wall. It then moves towards the wall at a speed of 1.33 m/s for 3 s until it is at the wall.

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