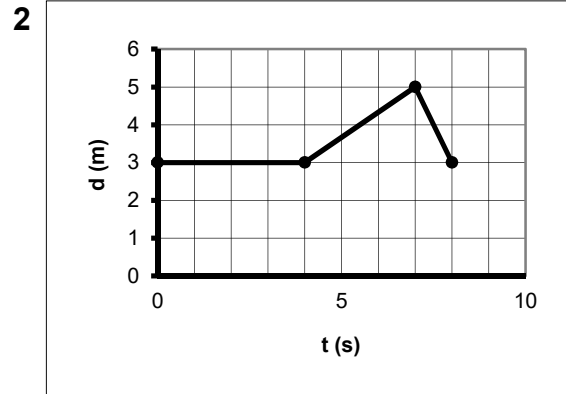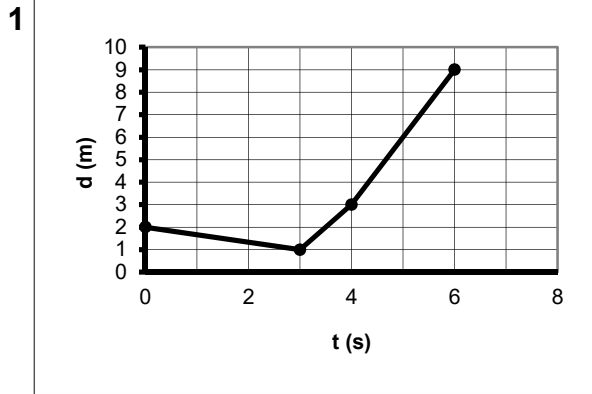# Distance-Time Graphs

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

1

d (m) vs t (s)

2

d (m) vs t (s)

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3 The object starts at 5 m from the wall. It stays where it is for 4 s .. It then moves towards the wall at a speed of 1.33 m/s for 3 s until it is 1 m from the wall.

4 The object starts at 4 m from the wall. It moves away from the wall at a speed of 1.33 m/s for 3 s until it is 8 m from the wall. It turns around and moves towards the wall at a speed of 4 m/s for 1 s until it is 4 m from the wall. It stays where it is for 4 s .

d (m) vs t (s)

d (m) vs t (s)
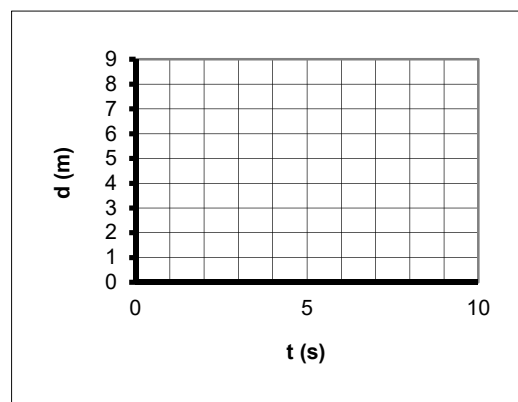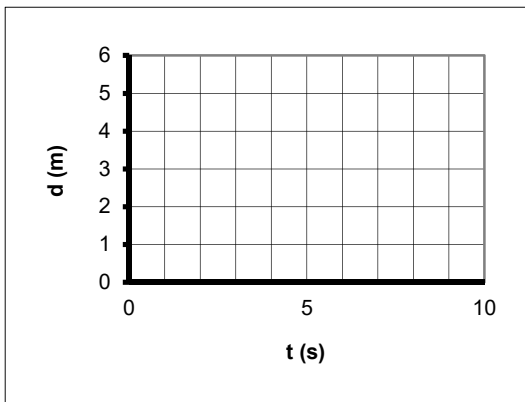
Answers

1. The object starts at 2 m from the wall. It moves towards the wall at a speed of 0.33 m/s for 3 s until it is 1 m from the wall. It turns around and moves away from the wall at a speed of 2 m/s for 1 s until it is 3 m from the wall. It then moves away from the wall at a speed of 3 m/s for 2 s until it is 9 m from the wall. //2. The object starts at 3 m from the wall. It stays where it is for 4 s . It then moves away from the wall at a speed of 0.67 m/s for 3 s until it is 5 m from the wall. It turns around and moves towards the wall at a speed of 2 m/s for 1 s until it is 3 m from the wall.