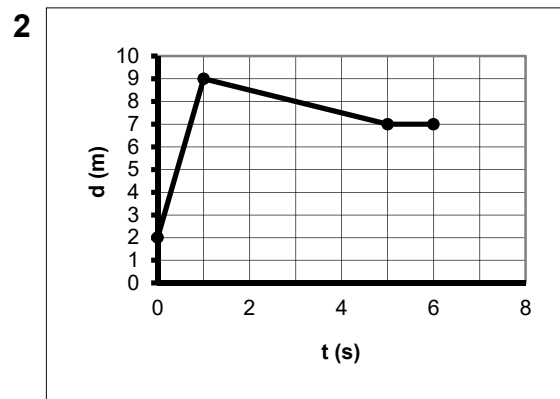
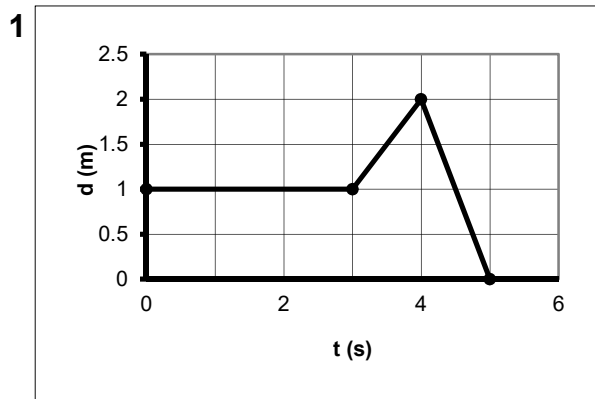
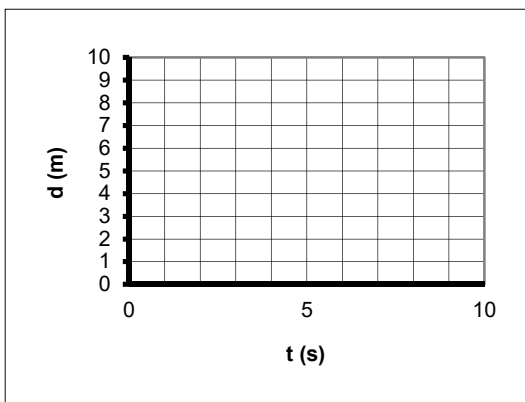


Distance-Time Graphs

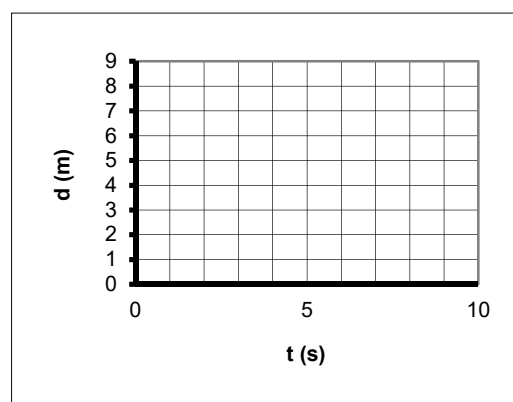
For #1 and 2, describe the motion of the object. For #3 and 4, draw the distance-time graphs.



3 The object starts at 5 m from the wall. It moves away from the wall at a speed of 1.33 m/s for 3 s until it is 9 m from the wall. It turns around and moves towards the wall at a speed of 4.5 m/s for 2 s until it is at the wall. It turns around and moves away from the wall at a speed of 3 m/s for 3 s until it is 9 m from the wall.



4 The object starts at 2 m from the wall. It moves away from the wall at a speed of 0.5 m/s for 2 s until it is 3 m from the wall. It then moves away from the wall at a speed of 2.5 m/s for 2 s until it is 8 m from the wall. It turns around and moves towards the wall at a speed of 0.75 m/s for 4 s until it is 5 m from the wall.



Answers

1. The object starts at 1 m from the wall. It stays where it is for 3 s. It then moves away from the wall at a speed of 1 m/s for 1 s until it is 2 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 at the wall. //2. The object starts at 2 m from the wall. It moves away from the wall at a speed of 7 m/s for 1 s until it is 9 m from the wall. It turns around and moves towards the wall at a speed of 0.5 m/s for 4 s until it is 7 m from the wall. It stays where it is for 1 s.

