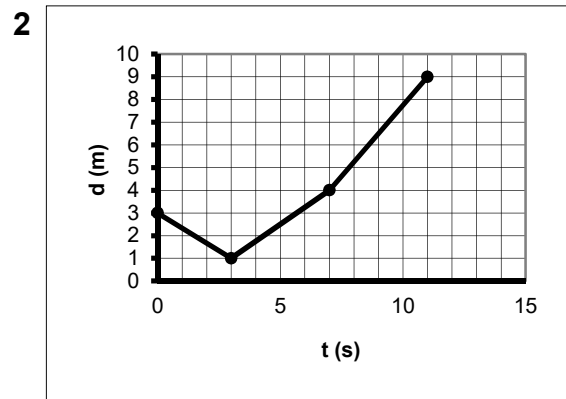
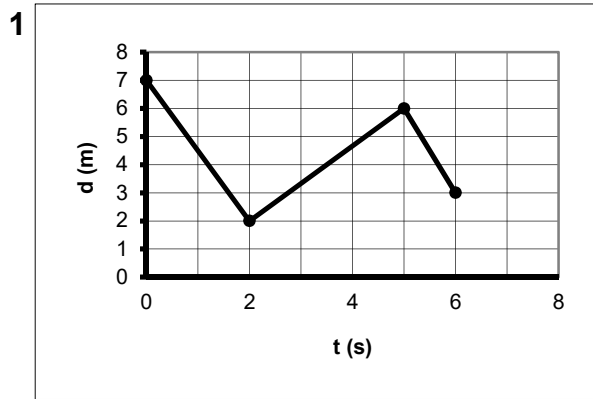


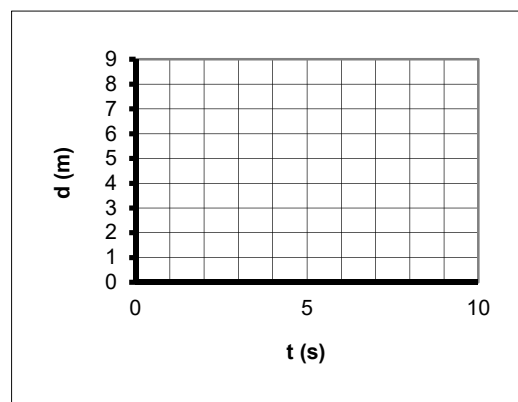
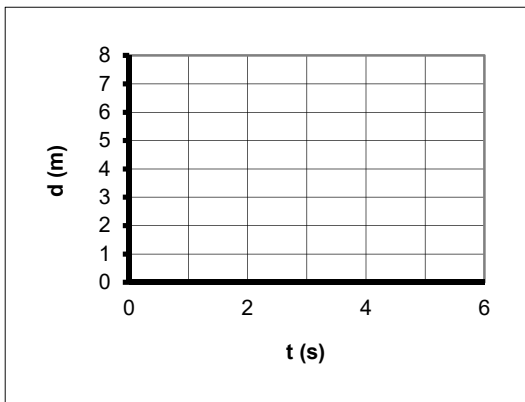
# Distance-Time Graphs

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



**3** The object starts at 4 m from the wall. It moves away from the wall at a speed of 1.5 m/s for 2 s until it is 7 m from the wall. It turns around and moves towards the wall at a speed of 0.5 m/s for 2 s until it is 6 m from the wall. It then moves towards the wall at a speed of 6 m/s for 1 s until it is at the wall.

**4** The object starts at 8 m from the wall. It moves towards the wall at a speed of 2.5 m/s for 2 s until it is 3 m from the wall. It then moves towards the wall at a speed of 0.5 m/s for 2 s until it is 2 m from the wall. It then moves towards the wall at a speed of 1 m/s for 2 s until it is at the wall.



**Answers**

1. The object starts at 7 m from the wall. It moves towards the wall at a speed of 2.5 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 1.33 m/s for 3 s until it is 6 m from the wall. It turns around and moves towards the wall at a speed of 3 m/s for 1 s until it is 3 m from the wall. //2. The object starts at 3 m from the wall. It moves towards the wall at a speed of 0.67 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 0.75 m/s for 4 s until it is 4 m from the wall. It then moves away from the wall at a speed of 1.25 m/s for 4 s until it is 9 m from the wall.

