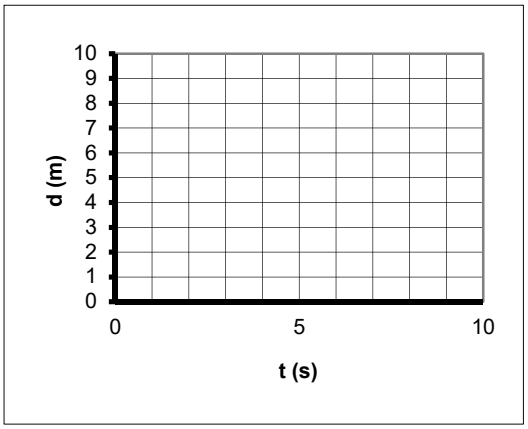
MPM1D Name: Date: .

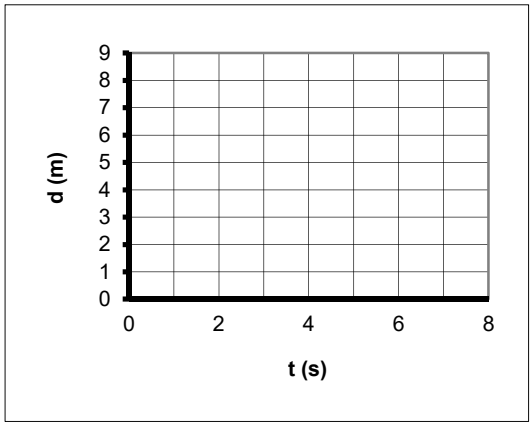
Distance-Time Graphs

Describe the motion of the object in the following distance-time graphs.

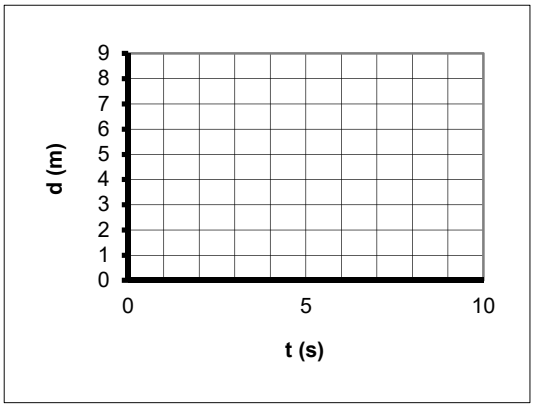
1 The object starts at the wall. It moves away from the wall at a speed of 9 m/s for 1 s until it is 9 m from the wall. It turns around and moves towards the wall at a speed of 0.75 m/s for 4 s until it is 6 m from the wall. It turns around and moves away from the wall at a speed of 0.75 m/s for 4 s until it is 9 m from the wall.



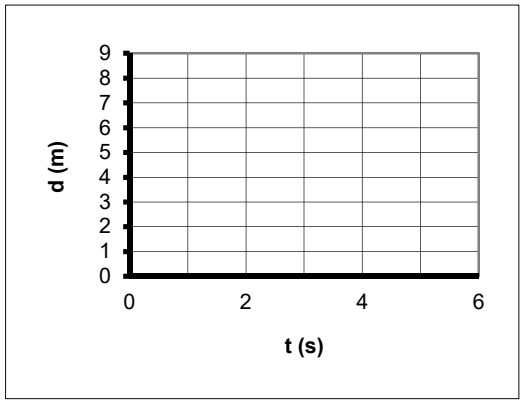
2 The object starts at 3 m from the wall. It moves away from the wall at a speed of 5 m/s for 1 s until it is 8 m from the wall. It turns around and moves towards the wall at a speed of 4 m/s for 2 s until it is at the wall. It stays where it is for 3 s .



3 The object starts at 5 m from the wall. It moves towards the wall at a speed of 3 m/s for 1 s until it is 2 m from the wall. It turns around and moves away from the wall at a speed of 0.67 m/s for 3 s until it is 4 m from the wall. It then moves away from the wall at a speed of 1 m/s for 4 s until it is 8 m from the wall.



4 The object starts at 1 m from the wall. It moves away from the wall at a speed of 2.5 m/s for 2 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 2 s until it is at the wall. It turns around and moves away from the wall at a speed of 8 m/s for 1 s until it is 8 m from the wall.



Answers