

Worksheet 4: Velocity vs. Time Graphs and Displacement

2. From the position vs. time data below, answer the following questions.

a. Construct a graph of position vs. time.

b. Construct a graph of velocity vs. time.

t (s)	x (m)
0	0
1	2
2	4
3	4
4	7
5	10
6	10
7	10
8	5
9	0

c. Draw a motion map for the object.

d. Determine the displacement from $t = 3.0$ s to 5.0 s using the velocity vs. time graph.

e. Determine the displacement from $t = 7.0$ s to 9.0 s using the velocity vs. time graph.

f. Determine the average **velocity** from $t = 4$ s to 8 s.

g. Determine the average **speed** from $t = 4$ s to 8 s.