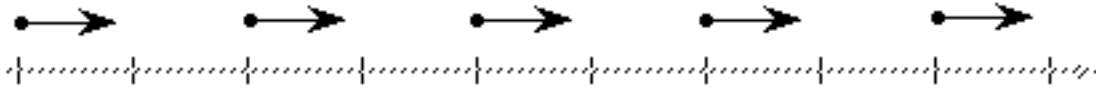


UNIT II: Worksheet 4



1. From the motion map above, answer the following:
 - a. What can you conclude about the motion of the object?
 - b. Draw a qualitative graphical representation of x vs t (see below).
 - c. Draw a qualitative graphical representation of v vs t (see below).

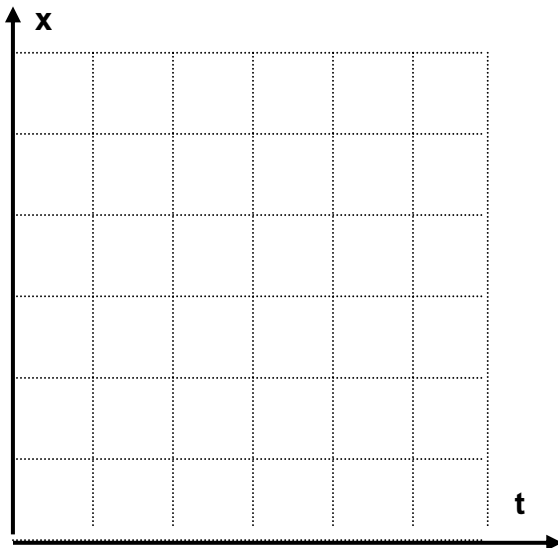


fig. 1

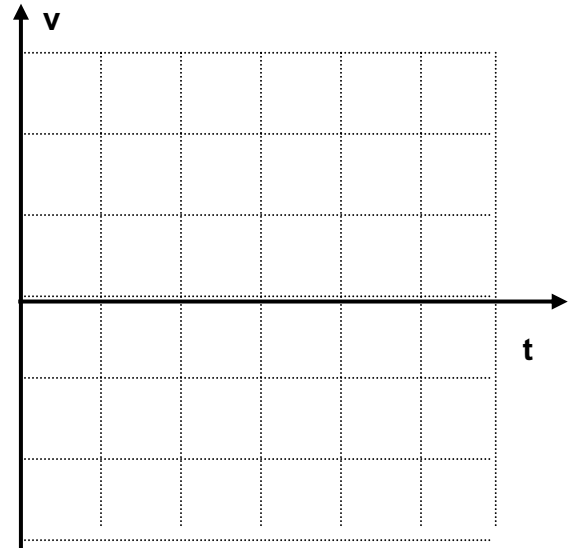


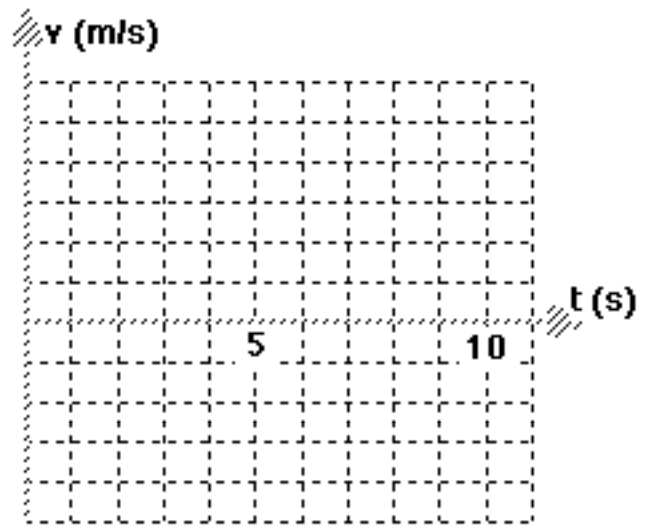
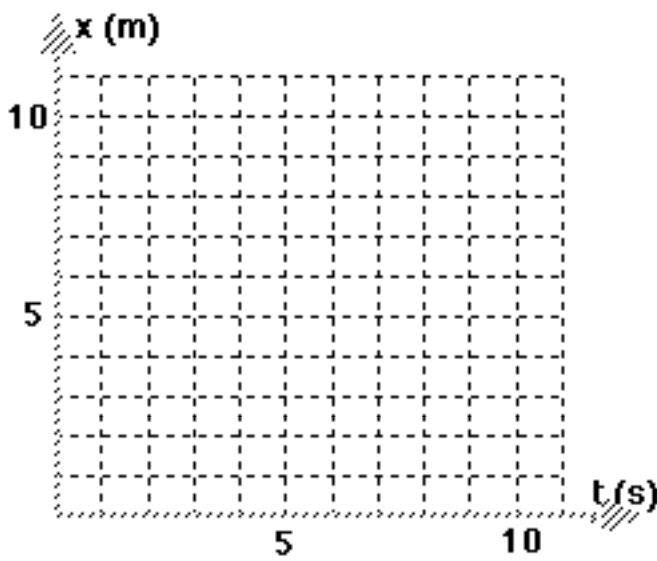
fig. 2

- d. Write a mathematical expression that represents the relationship between x and t , from fig. 1.
- e. Write a mathematical expression that represents the relationship between v and t , from fig. 2
- f. Describe what the area under the curve in fig. 2 represents. Cross hatch this area.

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

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

- Construct a graph of position vs time.
- Construct a graph of velocity vs time.



- Draw a motion map for the object.
- Determine the displacement from $t = 3.0\text{s}$ to 5.0s using graph B.
- Determine the displacement from $t = 7.0\text{s}$ to 9.0s using graph B.