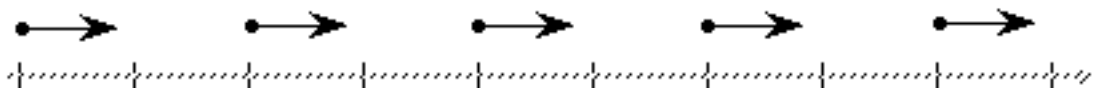


UNIT II: Worksheet 4



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).

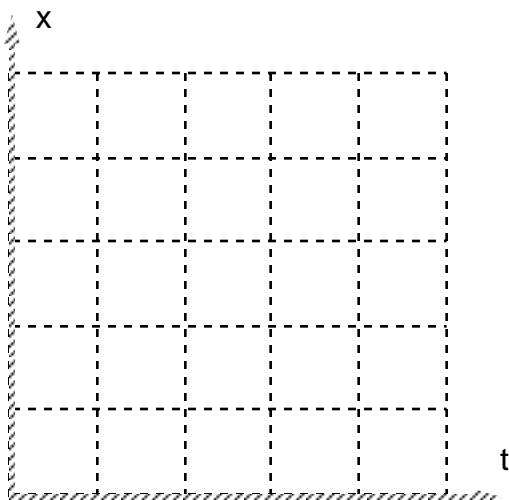


fig. 1

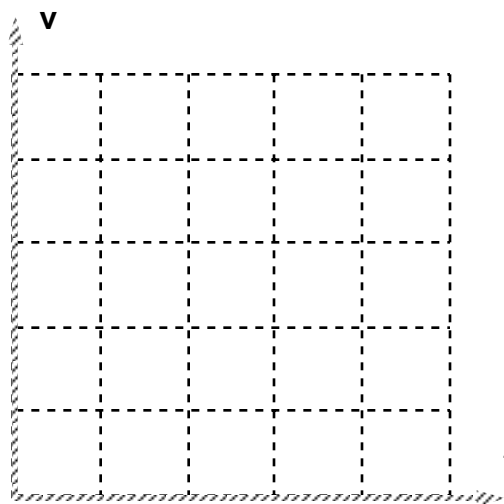


fig. 2

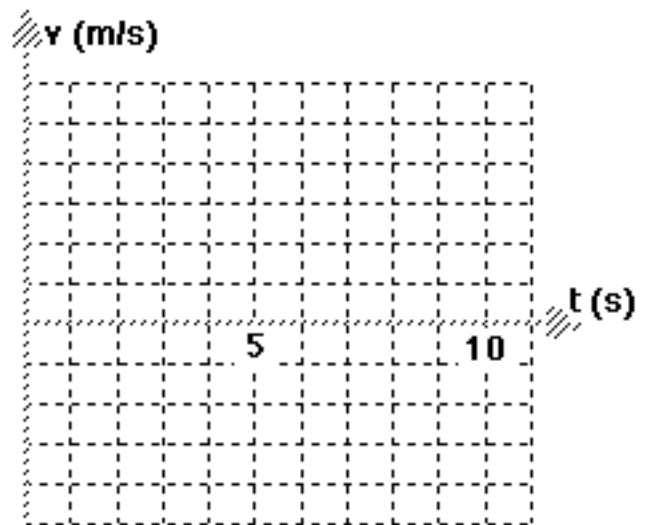
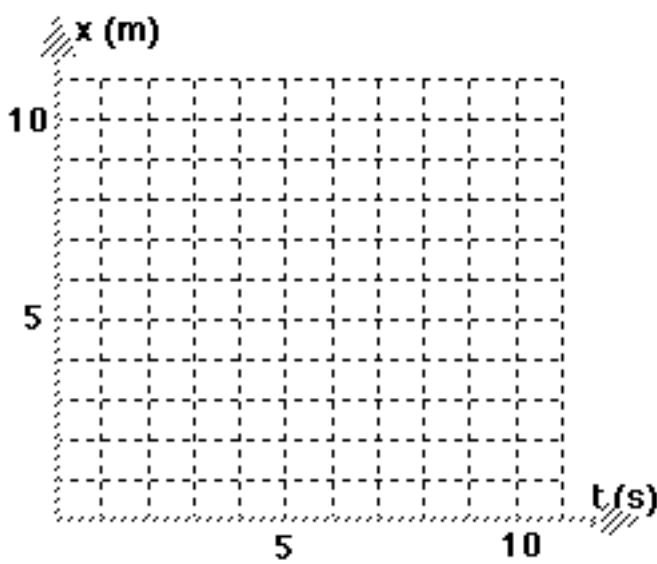
- d. Write a mathematical expression that represents the relationship between x and t , from fig. 1.
- e. Write a mathematical expression that represents the relationship between v and t , from fig. 2
- f. Describe what the area under the curve in fig. 2 represents. Cross hatch this area.

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

a. Construct a graph of position vs time.

b. Construct a graph of velocity vs time.



c. Draw a motion map for the object.

d. Determine the displacement from $t = 3.0\text{s}$ to 5.0s using graph B.

e. Determine the displacement from $t = 7.0\text{ s}$ to 9.0 s using graph B.