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## Constant Velocity Graphing Wkst 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 $\mathbf{x}$ vs $\mathbf{t}$ (see below).
c. Draw a qualitative graphical representation of $\mathbf{v}$ vs $\mathbf{t}$ (see below).

fig. 1

fig. 2
d. What does the slope of the line in fig. 1 represent?
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.

| $\mathrm{t}(\mathrm{s})$ | $\mathrm{x}(\mathrm{m})$ |
| :---: | :---: |
| 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 $\mathrm{t}=3.0$ s to 5.0 s using graph B.
e. Determine the displacement from $t=7.0 \mathrm{~s}$ to 9.0 s using graph B.

