

**Worksheet #7: v-t Graphs: Plotting, Calculating Slope, Describing Motion from Multistep Graphs, and Determining the Area under the Line**

**1. Plotting v-t Graphs**

Graph each of the following sets of data, using proper graphing techniques.

a.

Speed (m/s)	0.0	5.0	10.0	15.0	20.0	25.0
Time (s)	0.0	2.0	4.0	6.0	8.0	10.0

c.

v (m/s)	0	20	40	60	80
t (s)	0	5	10	15	20

b.

Velocity(m/s)	0	25	50	75	100
Time (s)	0	10	20	30	40

d.

$\bar{v}$ (km/h)	10	10	10	10	10
t (h)	1	2	3	4	5

**2. Slope of v-t Graphs**

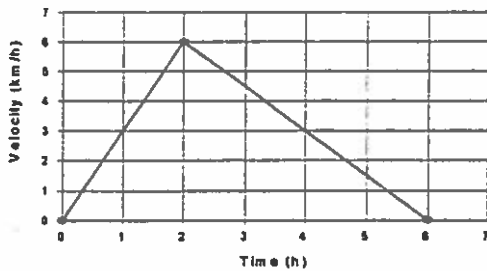
For each of the graphs plotted in 1, calculate the slope of the line of best fit. (ie acceleration)

**Describing Motion**

For each of the graphs below, calculate the slope for each section, and describe the motion represented by each.

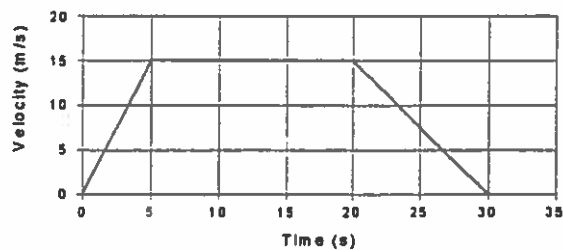
a.

Velocity vs Time



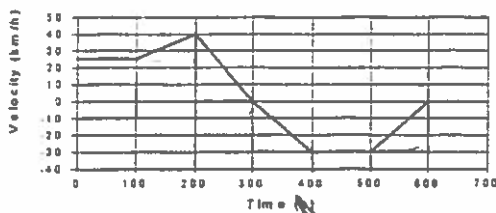
b.

Velocity vs Time



c.

Velocity vs Time



**Area Under the Line**

For each of the graphs in 3, calculate the area under the curve and use it to find both the distance and displacement of each.

**Graph Paper for Part 1**

