Moving Man Assignment

Name _____

Set-Up

Go to the "Moving Man" website at
http://www.mste.uiuc.edu/users/Murphy/MovingMan/MovingMan.html

1. Click the Restart button near the upper right corner. You'll need to click this button every time you want to start a new graph.

2. Use these settings for the best results:

# of graphs	Top graph	Second graph	Third graph	Filtering	Interval
One	Distance			None	15 seconds

3. Click the Rescale button (upper right) until the grid appears with about 8 meters on the vertical axis.

4. Click and drag the Moving Man and try to move him in such a way that the distance vs time graph is a straight line.

Trial 1

1. Quickly move the Moving Man so that he is at school, i.e. about 10 m from home. **Very slowly** move him toward his home. Move as slowly as possible, but at a steady pace. Continue until he arrives at home.

2. As accurately as you can, find four points from your graph. You will have to approximate, of course. List your data points in the chart below.

Time (Seconds)	Distance (Feet)
0	10
	0 (or close to 0)

Trial 2

3. Quickly move the Moving Man so that he is at school, i.e. about 10 m from home. *Quickly* move him toward his home. Move quickly at a steady pace. Continue until he arrives at home.

4. As accurately as you can, find four points from your graph. You will have to approximate, of course. List your data points in the chart below.

Time (Seconds)	Distance (Feet)
0	10
	0 (or close to 0)

HOMEWORK

Trial 1

Type in the answers to the following questions in the spaces below, showing as much work as possible OR write it out by hand, scan it in and send it to me.

1. Choose any two points in your table for Trial 1 and find the slope. What does the slope mean in terms of the moving man? (1)

2. Find a formula (straight line) for *D* in terms of *T.*   (2)

3. Find the *d*-intercept and the *t*-intercept of your model. Interpret these in terms of the walking student. (2)

Trial 2

4. Choose any two points in your table for Trial 2 and find the slope. What does the slope mean in terms of the moving man? (1)

5. Find a formula (straight line) for *D* in terms of *T*.   (2)

6. Find the *d*-intercept and the *t*-intercept of your model. Interpret these in terms of the walking student. (2)