

Name, Date, Hr/Per \_\_\_\_\_

## The Tortoise & the Hare: Distance-Time Graphing

A tortoise roams around through the courtyard outside a deranged teacher's classroom, leaving behind the data below.

**Objective:** Graph the information on a distance-time graph and extract information on the speed of the tortoise for the various time intervals.

**Data:**

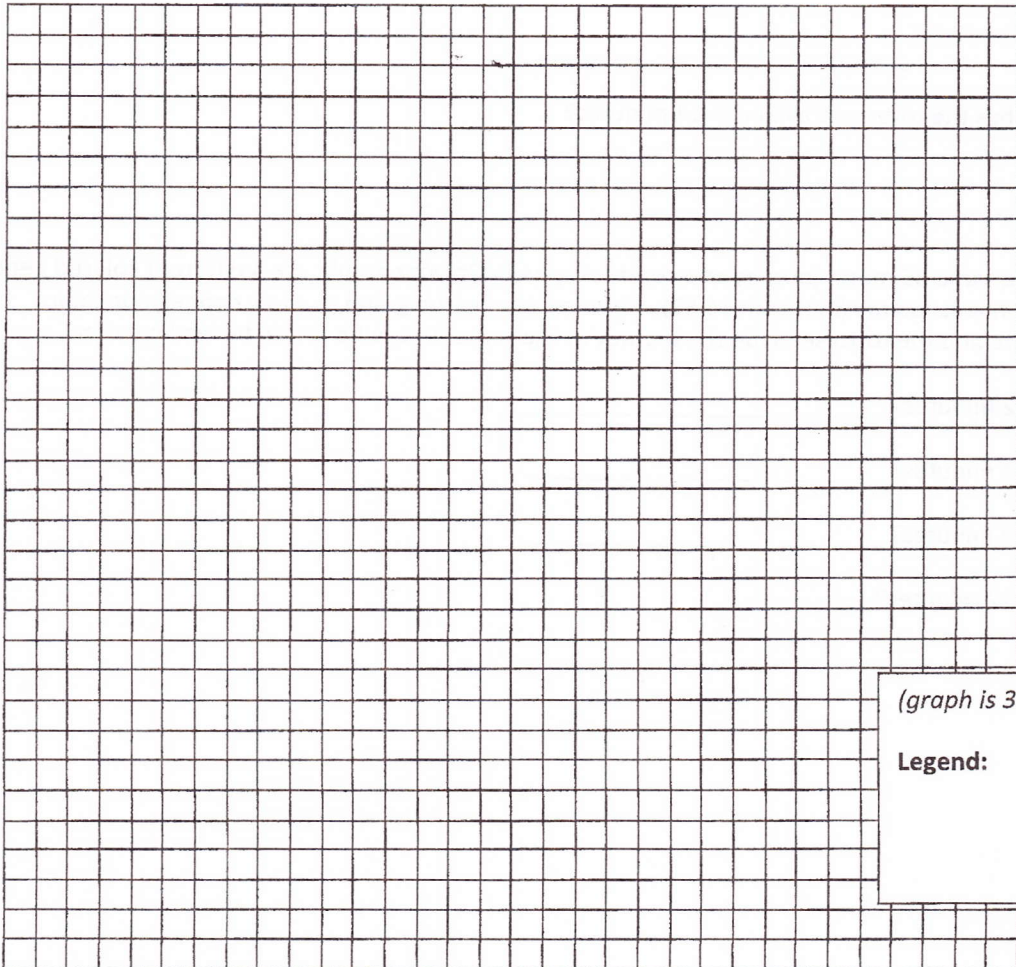
**Materials:** graph paper, ruler, pencil, and calculator

**Procedure:**

1. With the graph paper provided and information from your data table
  - a. title your graph
  - b. label your graph axes – don't forget units!
  - c. graph the data provided in the table below
2. Find the speed for each time interval given in the data table.

Position	Time (minutes)	Distance (meters)	Interval	Speed (m/min)
A	0	0	----	----
B	2	5	AB	
C	4	30	BC	
D	5	35	CD	
E	7	35	DE	
F	8	70	EF	
G	11	70	FG	
H	16	85	GH	

Title: \_\_\_\_\_



(graph is 32 x 32)  
**Legend:**

**\*\*SHOW ALL WORK\*\***

**Questions:**

1. Which interval(s) represent(s) the highest speed?
2. Which interval(s) represent(s) the lowest speed?
3. What is the average speed from A to C?
4. What is the average speed from D to F?
5. What was the average speed for the whole trip?
6. How long has the tortoise taken to cover 50 meters?
7. How far has the tortoise traveled in 14 minutes?

A hare makes the same 85 meter journey at a constant speed. On your graph, use a different colored pencil to plot the line which connects points (0,0) and (16,85). Create a key on the graph to show define your colors.

8. If the hare and the tortoise made the journey at the same time, who would be leading after...

- a. 2 minutes? \_\_\_\_\_
- b. 4 minutes? \_\_\_\_\_
- c. 7 minutes? \_\_\_\_\_
- d. 12 minutes? \_\_\_\_\_