Analysis Questions: The Turtle & the Hare

1. Fill in the missing information on the data tables below (you should use your graph as a reference):

Turtle

Time (min)	Distance (m)
0	
	100
10	
15	300
20	400
25	500
30*	

*predict where the turtle would be if the finish line was extended so the race needed to continue for 30 min

Hare

Time (min)	Distance (m)
5	220
12	
	340
20	460
25	

2. What was the **turtle's average speed** after 5 minutes? What was his average speed for the entire race? How do the two speeds **compare**?

Speed after 5 min =_____

Speed for the entire race = _____

Show all your work here (include any equations and units):
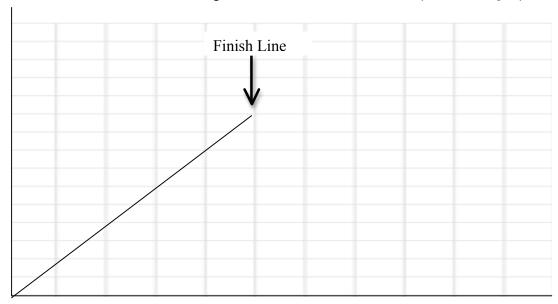
How do the speeds compare?

3. Which of the two animals traveled at a **constant speed**? Cite **two pieces** of evidence to support your answer.

  Animal that traveled at a constant speed:_____

  What does the term **constant** mean?_____

  _____

*Number 1 piece of evidence:

*Number 2 piece of evidence:

4. In what **Time Period** (or from what **time** to what **time**) was the hare moving at his greatest speed? How are you able to determine the hare's greatest speed from your graph? Find the speed of the hare during interval.

5. During what time interval(s) in the race was the hare stationary? How do you know? (Use the slope of the line on the graph to support your answer?

6. After the race, the turtle took his friends to Porto's for dinner. However, he had to return to the **starting line** to retrieve his wallet. In the space below, **sketch a graph** of what the turtle's return trip back to the starting line would look like given that the turtle still traveled at a **same constant speed**. Fill in as much information on the graph as you can, **including any appropriate axis labels and numbering** that are necessary to complete the graph.

Finish Line