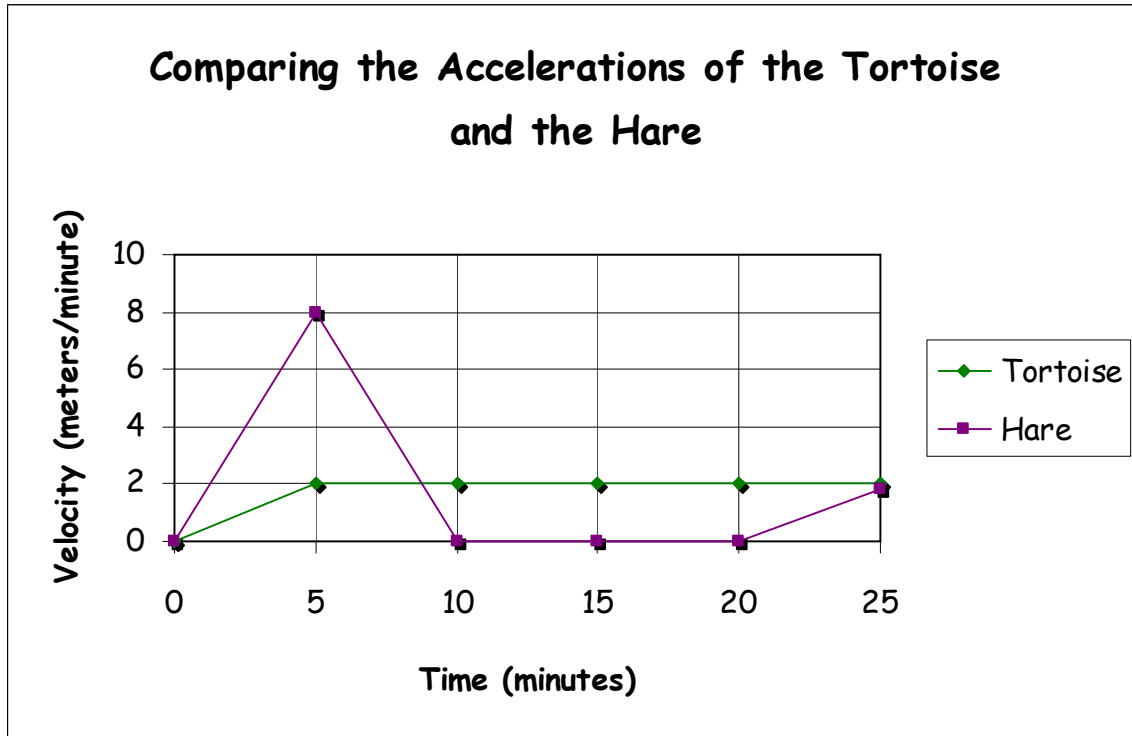


Name: _____ Section: _____
Understanding Velocity-Time Graphs

Directions: Use your knowledge of velocity-time graphs to answer the questions that follow.

Part 1



1. What does each point plotted on the graph represent?
2. What does the Tortoise's line tell you about its acceleration?
3. What does the Hare's line tell you about its acceleration?

4. Compare and contrast the Tortoise and the Hare's acceleration for the periods below. Show your work!

a. 0-5 minutes

b. 5-10 minutes

c. 10-20 minutes

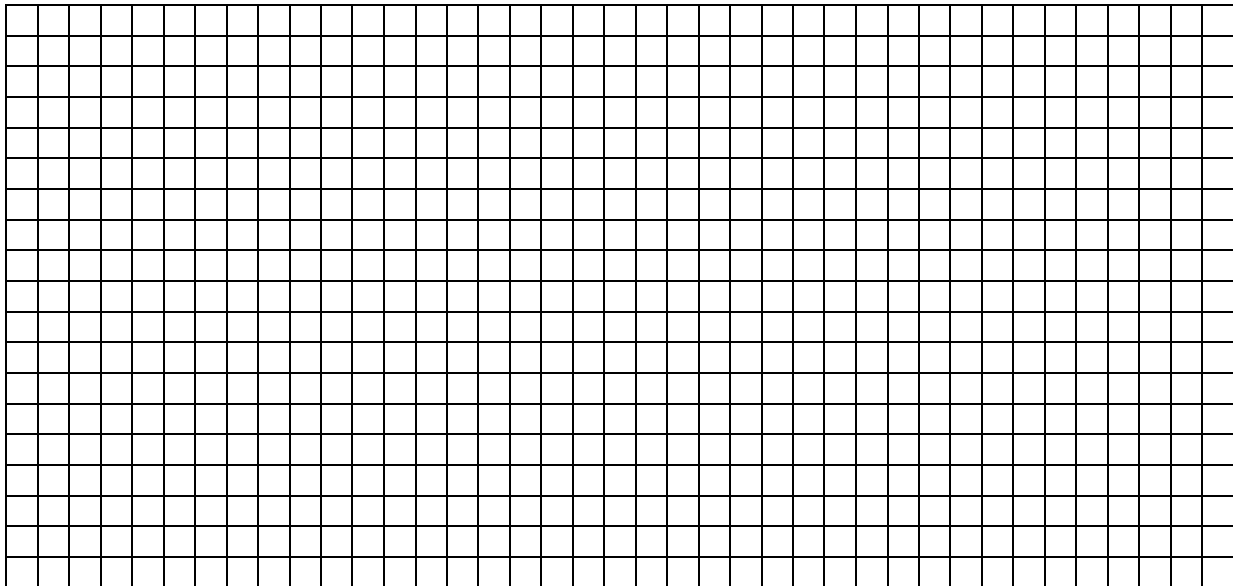
d. 20-25 minutes

5. Consider their acceleration and provide a brief summary of the events that took place while the Tortoise raced the Hare.

Part 2

The data below shows the acceleration of a cheetah as it chases down dinner. Use the data to create a velocity-time graph.

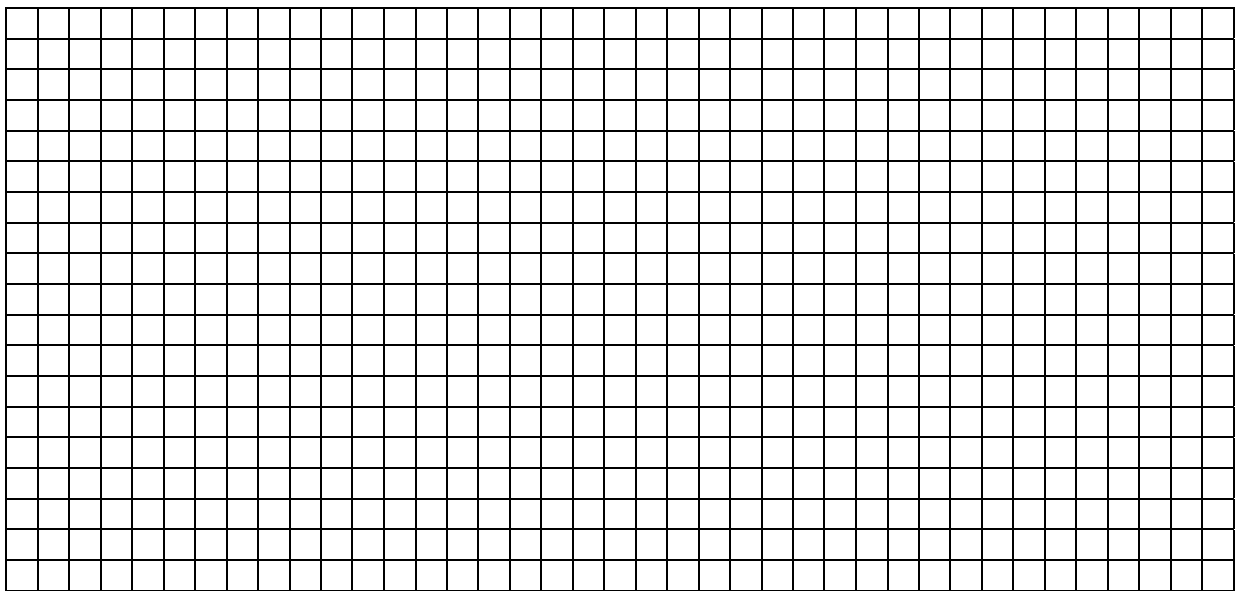
Time (seconds)	Velocity (m/s)
0	0
1	30
2	30
3	30
4	30
5	24



1. How would you describe the cheetah's acceleration for the first four seconds?
2. What is the cheetah's acceleration for the first four seconds? Show your work!
3. Describe what happens to the cheetah's acceleration between seconds four and five. Why do you think is the reason for this?

Part 3

Generate and organize your own data in a table, and use the data to create a line graph. You should have enough data to plot at least four points on your graph.



1. How would you describe the acceleration(s) represented on your graph?
2. What is the acceleration for two consecutive intervals plotted on your graph? Show your work!
3. Provide a brief summary of the events that took place.