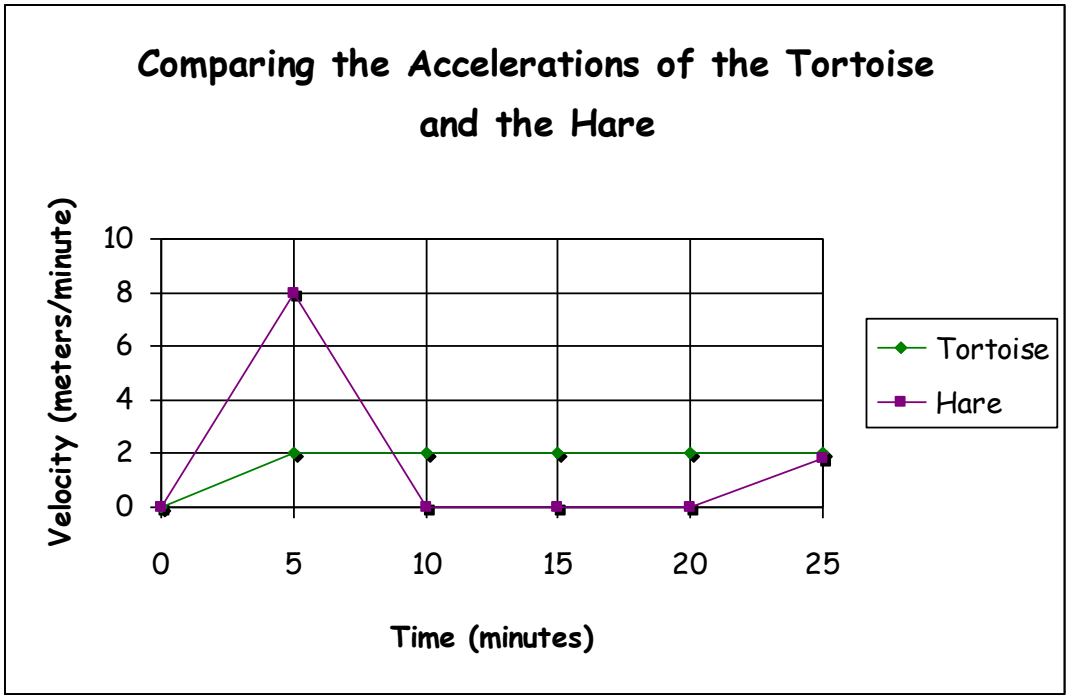
Name: _____ Section: _____

Understanding Velocity-Time Graphs

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

Part 1



1. What can be determined from a velocity-time graph?

2. What does the Tortoise's line tell you about its acceleration?
   a. From 0-5 minutes

   b. From 5-25 minutes

3. What does the Hare's line tell you about its acceleration?
    a. From 0-5 minutes

    b. From 5-10 minutes

    c. From 10-20 minutes

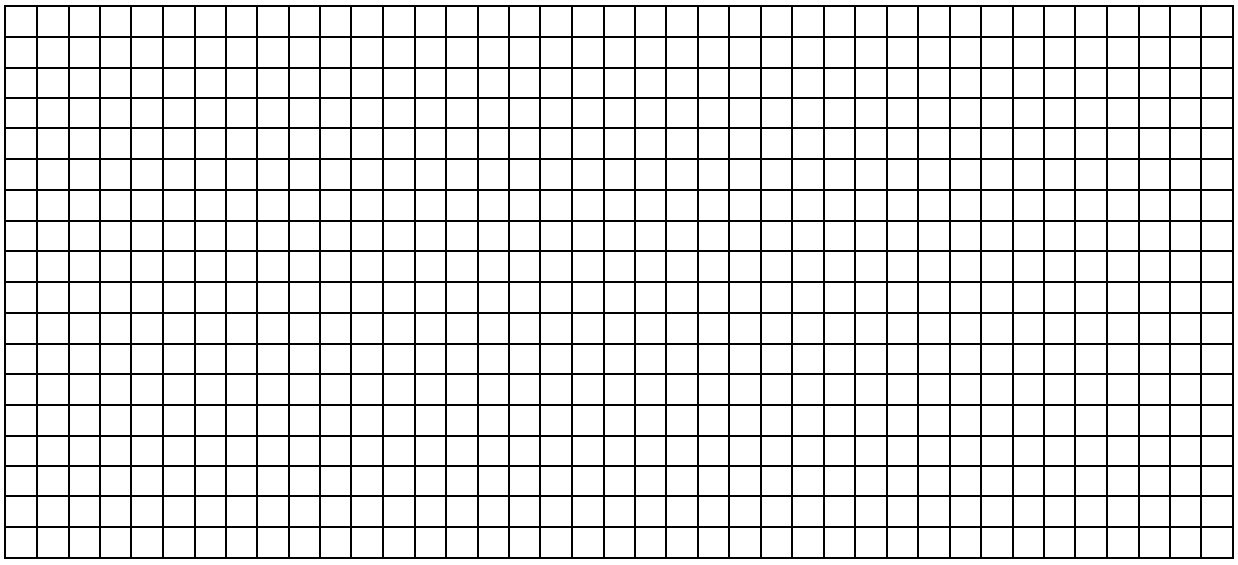
    d. From 20-25 minutes

4. 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	**15**
6	**0**



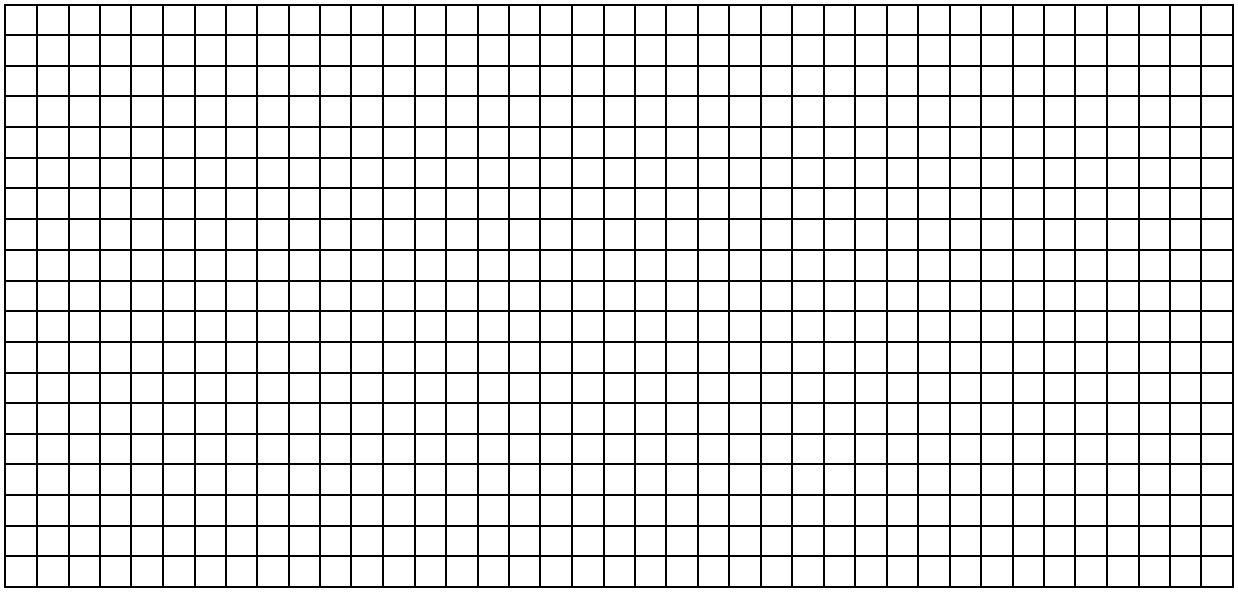
1. How would you describe the cheetah's acceleration during the 0-1 second interval?

2. How would you describe the cheetah's acceleration during the 1-4 second interval?

3. Describe what happens to the cheetah's acceleration during the 4-6 second interval. Why do you think is the reason for this?

Part 3

Generate a line graph (velocity–time) and provide a detailed summary of events below.



Summary