$\qquad$ Pd $\qquad$ Date $\qquad$ Module 1 Topic A Quiz SG Turn in this Study Guide on the day of your quiz in order to earn +5 EXTRA CREDIT on the quiz.

1) A hiker's elevation-vs-time graph is shown below. He hikes at a constant speed the entire time. Write a story to describe the hike.

2) The table shows the number of people who attended concerts as a band started to get famous. Sketch a graph with no numbers that shows the general pattern of the number of people.
(Hint: Will it be linear, quadratic, or exponential?)

| Concert | Attendees |
| :---: | :---: |
| 1 | 505 |
| 2 | 1002 |
| 3 | 2027 |
| 4 | 4700 |

3) Car A and Car B are traveling to get home. Car A starts from 150 miles away and travels at a constant speed of 50 mph . Car B starts from 200 miles away and travels at a constant speed of 75 mph .

a. When does Car B catch up to Car A? At what distance away from home?
b. How long will it take for Car A to reach home?

## Time (hrs)

4) A skydiver gets in an airplane which climbs at a constant speed for 10 min to $10,000 \mathrm{ft}$. The skydiver spends 2 minutes at this height gathering her courage. Then, she jumps out of the plane in free fall down $8,000 \mathrm{ft}$. At 2,000 ft, she deploys her parachute and glides at a constant rate back to the ground. Sketch an elevation-vs-time graph for the path of the skydiver.


Time (sec)

