

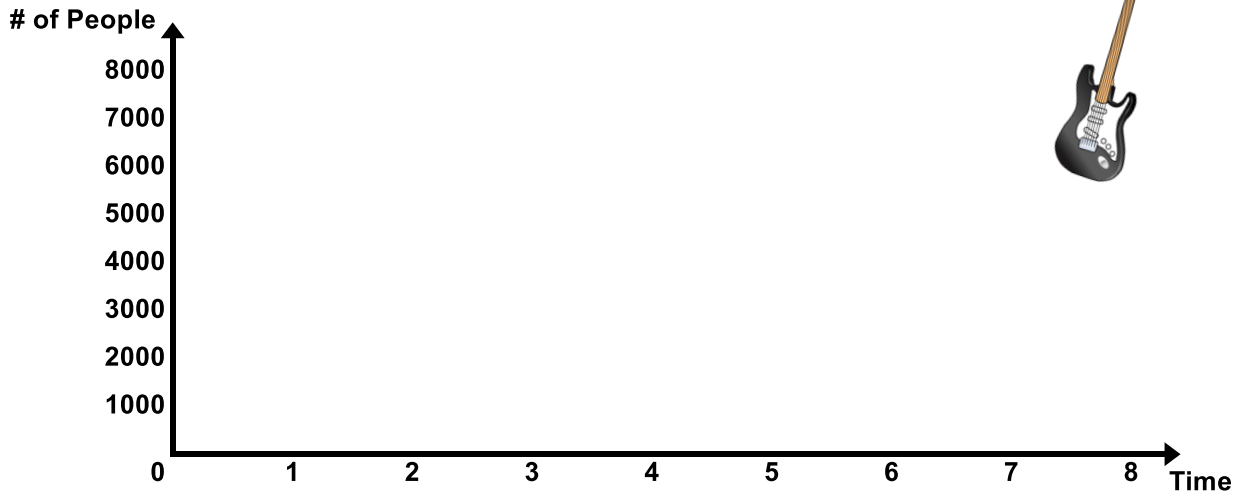
### 5.3g Class Activity: From Stories to Graphs



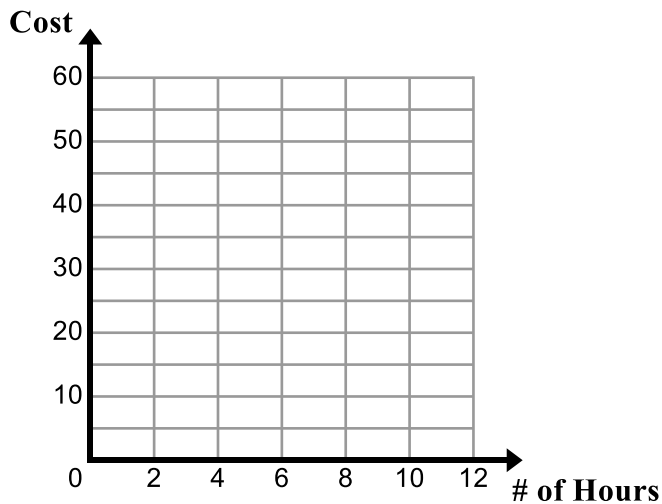
**Directions:** Sketch a graph to match each of the following stories. Label key features of your graph.

Story	Graph
<p>1. Zach walks home from school each day. Sketch a graph of Zach's distance from school as a function of time since the bell rang if the following happens: When the bell rings, Zach runs to his locker to grab his books and starts walking home. When he is about halfway home, he realizes that he forgot his math book so he turns around and runs back to school. After retrieving his math book, he realizes that he is going to be late so he sprints home.</p>	
<p>2. Solitude is offering a ski clinic for teens. The cost of the class is \$30 per student. A minimum of 5 students must sign up in order for Solitude to hold the class. The maximum number of students that can participate in the class is 12. Sketch a graph that shows the revenue Solitude will bring in dependent on the number of students that take the class.</p>	
<p>3. A biker is riding up a hill at a constant speed. Then he hits a downhill and coasts down the hill, picking up speed as he descends. At the bottom of the hill, he gets a flat tire. Sketch a graph that shows the distance traveled by the biker as a function of time.</p>	

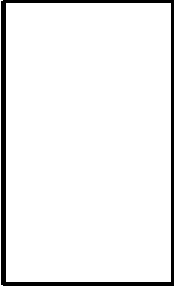

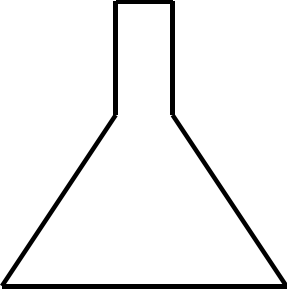

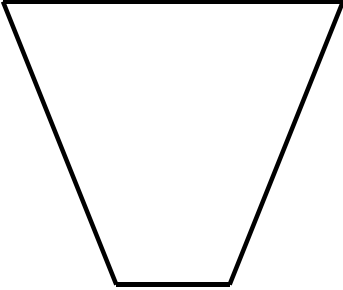

4. A concert for a popular rock group is sold out. The arena holds 8,000 people. The rock group is scheduled to take the stage at 8 pm. A band that is not very well known is opening for the rock band at 6:30 pm. The rock band is scheduled to play for 2 hours and the staff working the concert have been told that the arena must be cleared of people by 11:30 pm. Sketch a graph of the number of people in the arena from 5 pm to midnight. Time 0 on the grid below is 5 pm.

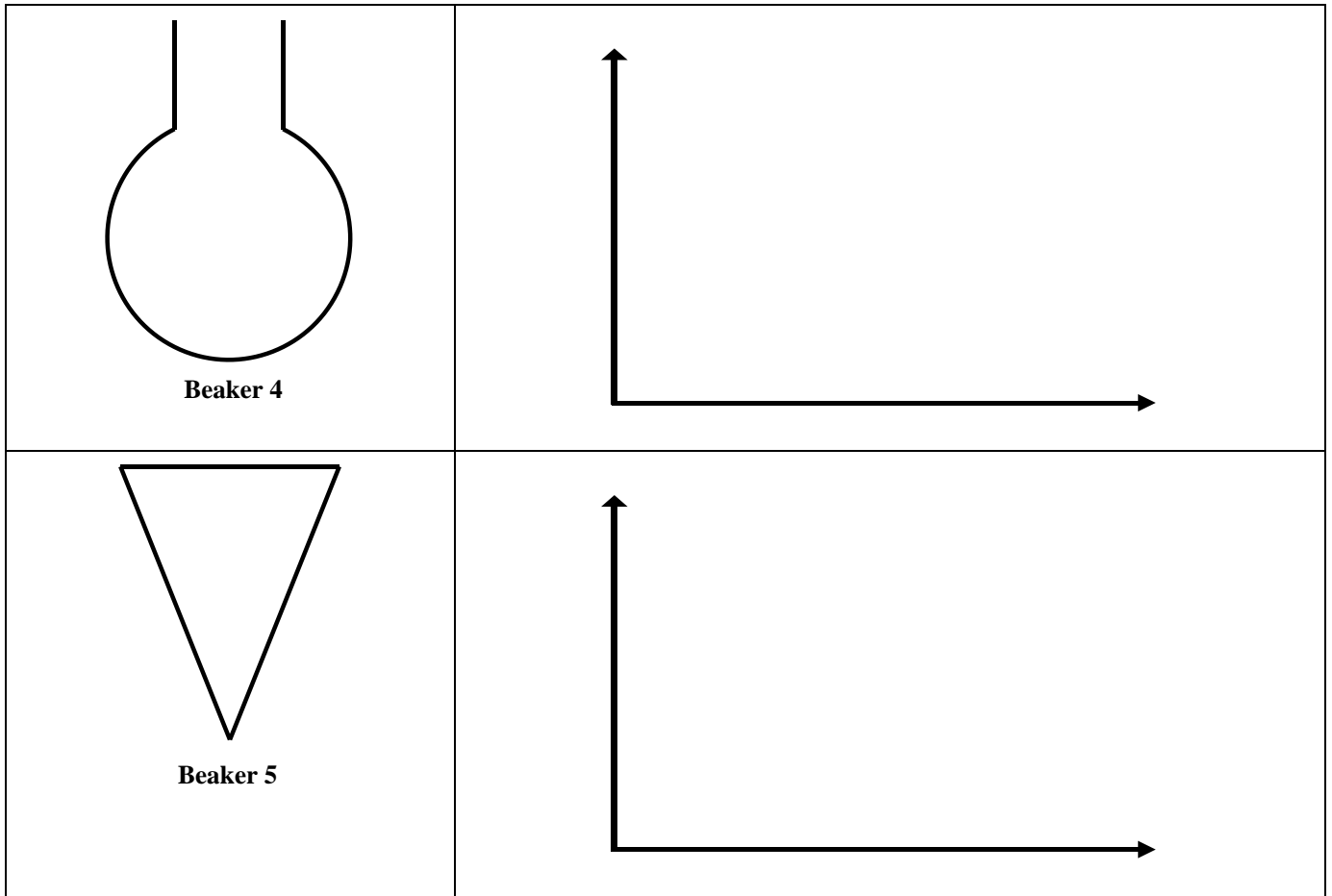


5. A parking garage charges \$5 per hour and has a maximum cost of \$40 for 12 hours. Sketch a graph of the total cost depending on how many hours a car is in the garage.



6. Your science teacher has the beakers shown below. He is going to fill them with water from a faucet that runs at a constant rate. Your job is to sketch a graph of the height of the water in each of the beakers over time.

Beaker	Graph of the height of the water over time
 <p style="text-align: center;"><b>Beaker 1</b></p>	
 <p style="text-align: center;"><b>Beaker 2</b></p>	
 <p style="text-align: center;"><b>Beaker 3</b></p>	



7. Now consider the volume of the water in each of the beakers over time. Sketch a graph of the volume of the water in each of the beakers over time.

