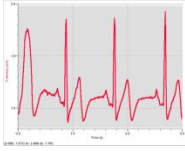


Algebra I
Lesson 4.1 – Graphing Relationships
Mrs. Snow, Instructor

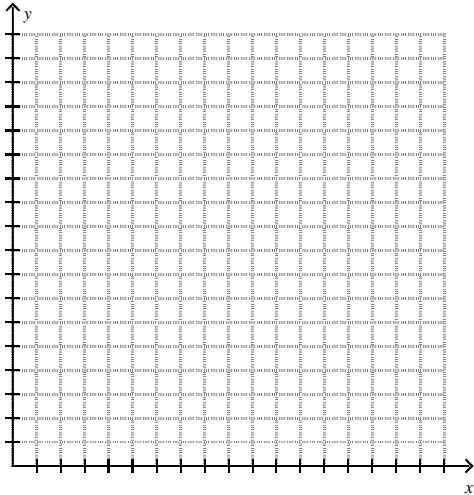


What does this graph look like? Cardiologists can study an EKG and analyze their patients' heartbeat. Graphs can be used to illustrate many different situations such as the functioning of your heart, seismic pattern of an earthquake, or tracking of a satellite.

It is important to know how to relate a graph to a given situation by using accurate words in the description:

Segment Description	Key Words
Horizontal	constant, stayed the same, no change
Slanting upward	rose steadily, increase
Slanting downward	dropped sharply, decrease

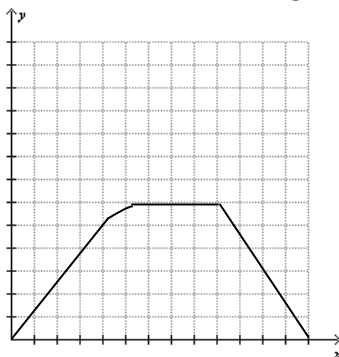
Draw a graph that describes the following situation:
 The temperature increased steadily for several hours then remained constant. At the end of the day, the temperature increased slightly again before dropping sharply to a temperature less than the initial temperature reading. .



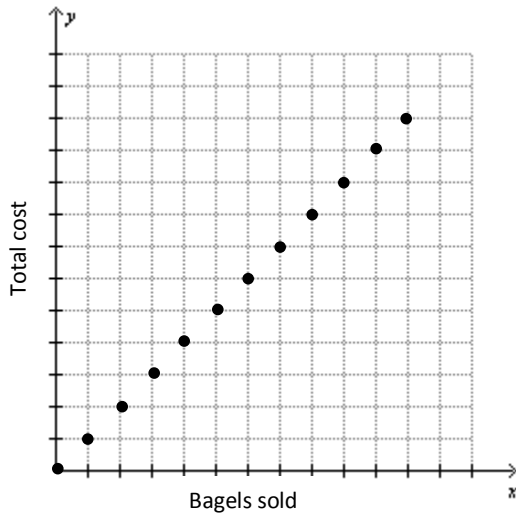
What is the starting temperature? Starting time? Since it was not stated, it can all be relative that is, we don't need to assign values to the grid lines.

1. Identify or underline the temperature changes
2. Sketch a graph that would approximate the situation.
3. Label axes.

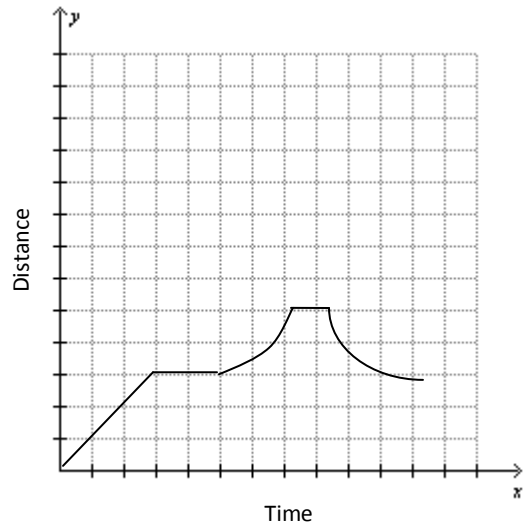
Describe a situation for filling an aquarium tank full of water:



Sometimes data presented on a graph are just points other times the data is connected by a line or curve:



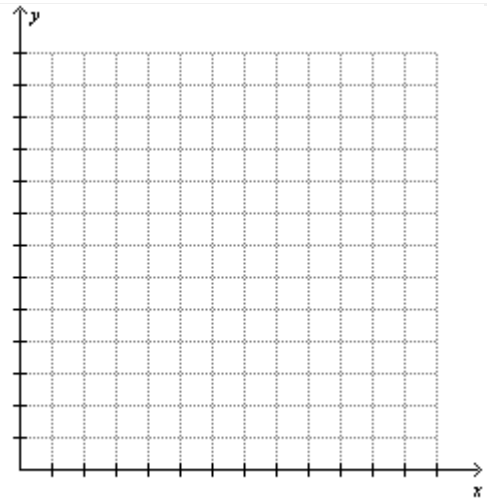
Discrete graph – shows only points



Continuous graph – show connected lines or curves

Sketch a graph the situation, tell whether the graph is continuous or discrete.

Jamie is taking an 8-week keyboarding class. At the end of each week, she takes a test to find the number of words she can type per minute. She improves each week.



Henry begins to drain a water tank by opening a valve. Then he opens a second valve. Then he closes the first valve. He leaves the second valve open until the tank is empty.

