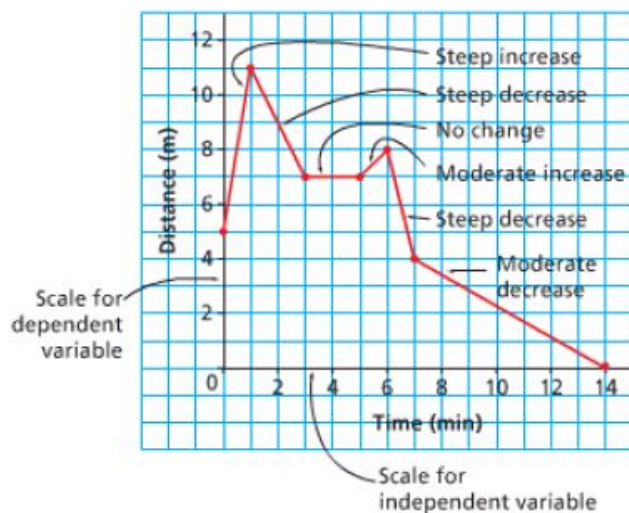


Section 5.3 - Interpreting and Sketching Graphs

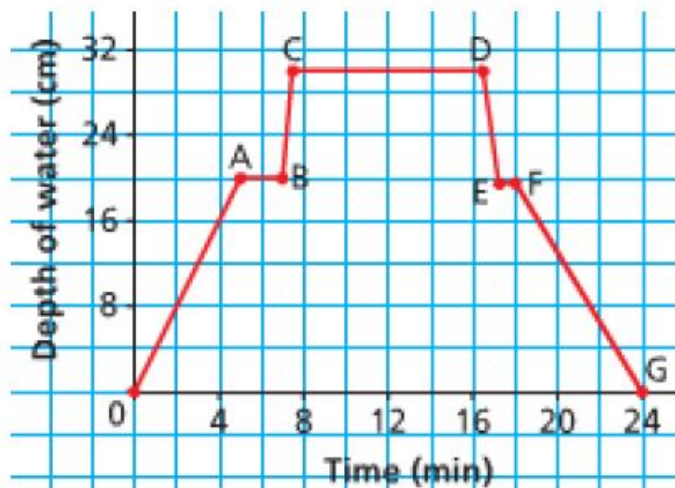
In this section we will examine, describe, and answer questions based on graphs. We will also draw graphs based on a description.

The following properties can be used to describe a line graph.



Example 1:

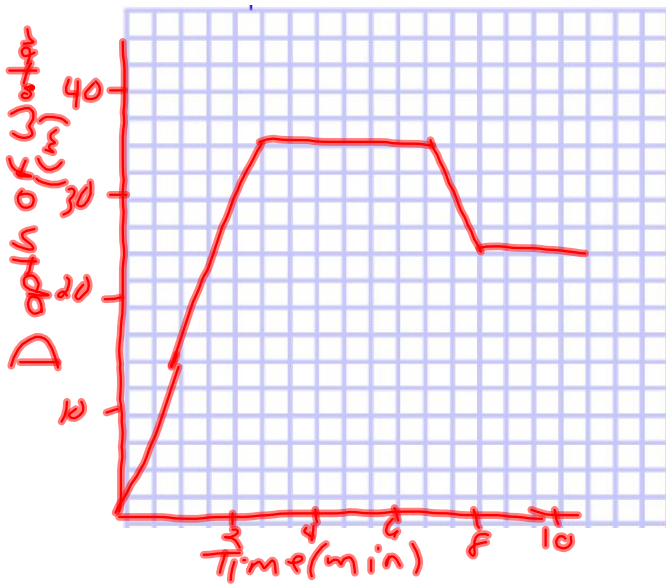
The following graph shows the depth of water in a bath tub as a function of time:



Describe what the graph is showing. What does each segment of the graph represent?

Sketch a graph to represent the following situation:

- You put the plug into the bathtub and turn on the water.
- you leave the bathroom and return to discover that the bath has overflowed.
- You turn off the tap and pull out the plug to let some of the water out. Then put the plug back in.



Example 2: Interpreting a graph
 Each point on the graph represents a person.
 Answer the following questions using the graph

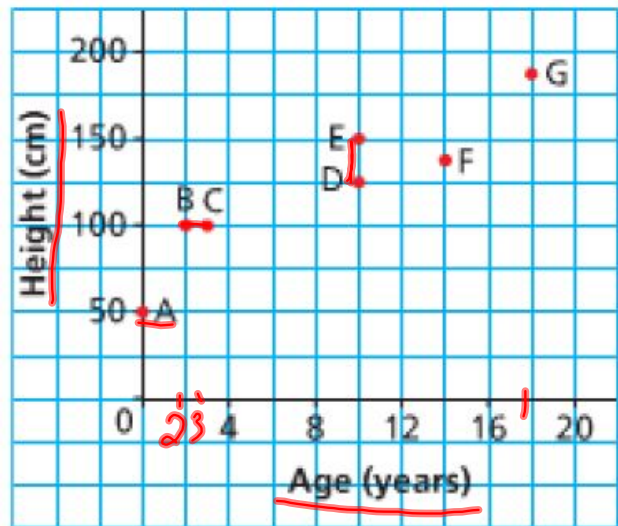
a) Which person is the oldest? **G**
 what is his or her age? **18**

b) Which person is the youngest? **A**
 what is his or her age? **0**

c) which two people have the same height?
 what is the height? **B, C 100cm**

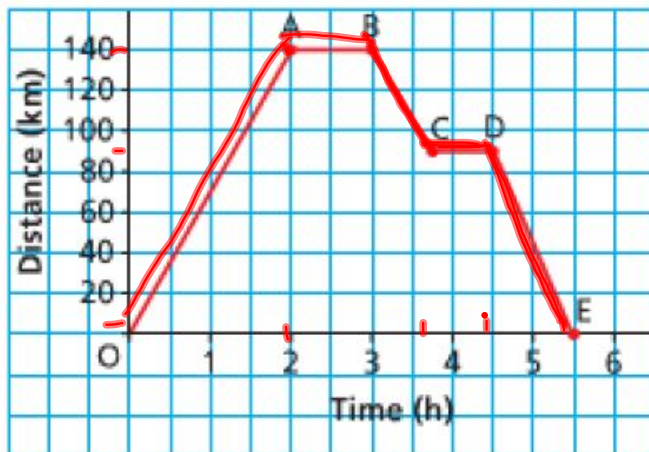
d) Which two people have the same age?
 what is the age? **E, D 10years**

e) Which of person B or C is taller for their age? **B**



Example 3: Describing a graph

The following graph represents a day trip from St. John's to Placentia. A distance of approximately 140 Km. Describe the journey for each segment of the graph.

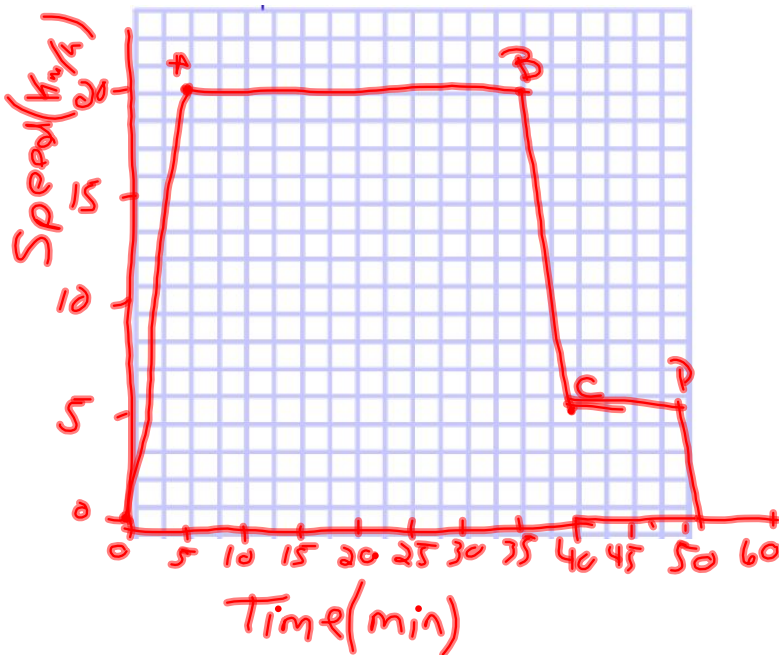


- OA - The car takes 2 hours to drive 140 km
 A-B: The car stops for 1 hour.
 B-C: The car travels 50 km back towards St. John's in 45 min
 C-D: The car stops for 45 minutes.
 D-E: The car travels 90 km in 1 hour.

Example 4: Sketch a graph.

Sam went on a bike ride. He accelerated until he reached a speed of 20km/h then he cycled for 30 minutes at approximately 20km/h. Sam arrived at the bottom of a hill and his speed decreased to approximately 5km/h for 10 min as he climbed the hill. He stopped at the top of the hill for 10 min.

Sketch a graph of speed as a function of time. Label each section of the graph, and explain what it represents.



HOMEWORK

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