

**Example 3****Using Function Notation to Determine Values**

The equation  $V = -0.08d + 50$  represents the volume,  $V$  litres, of gas remaining in a vehicle's tank after travelling  $d$  kilometres. The gas tank is not refilled until it is empty.

- a) Describe the function.

Write the equation in function notation.

$$V(d) = -0.08d + 50$$

- b) Determine the value of  $V(600)$ .

What does this number represent?

$$V(600) = -0.08(600) + 50$$

- c) Determine the value of  $d$  when  $V(d) = 26$ .

What does this number represent?

$$= 2 \text{ L}$$

$$\begin{aligned} 26 &= -0.08d + 50 \\ -24 &= -0.08d \\ \frac{-24}{-0.08} &= \frac{-0.08d}{-0.08} \\ d &= \underline{300 \text{ km}} \end{aligned}$$

## 5.3 Interpreting and Sketching Graphs

### LESSON FOCUS

Describe a possible situation for a given graph and sketch a possible graph for a given situation.

### Make Connections

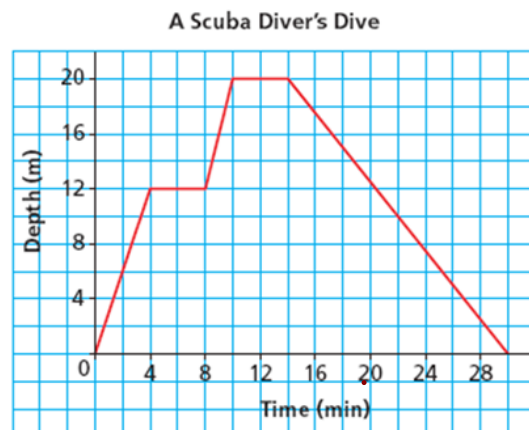
In math, a graph provides much information. This graph shows the depth of a scuba diver as a function of time.

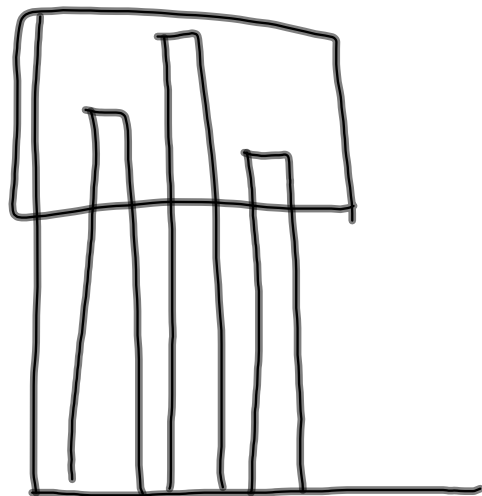
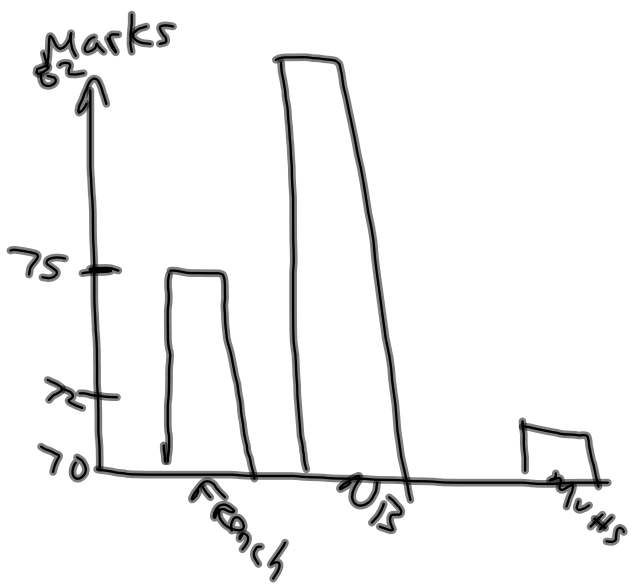
How many minutes did the dive last?

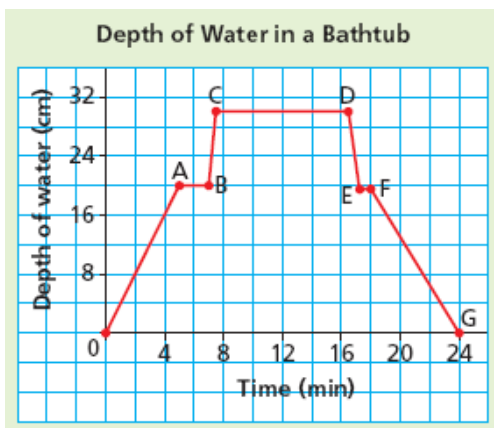
At what times did the diver stop her descent?

What was the greatest depth the diver reached?

For how many minutes was the diver at that depth?







OA →

Given the graph shown at the right, provide a brief explanation of what could possibly be happening at each of the 7 segments labelled on the graph

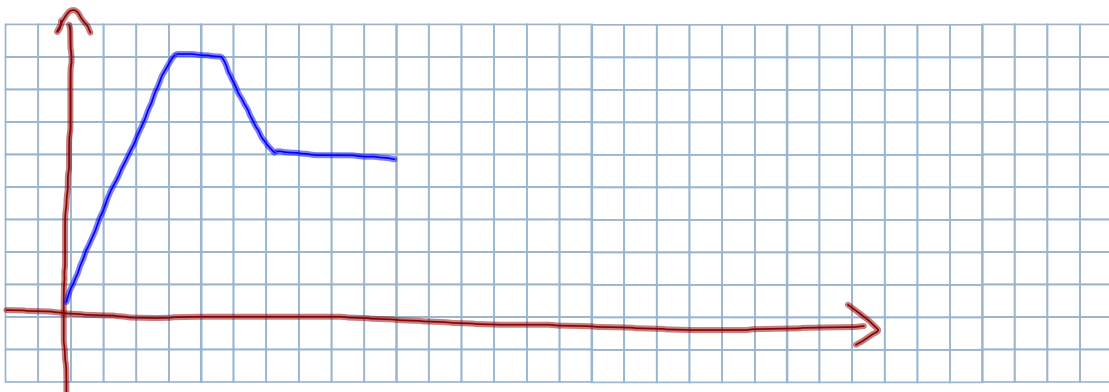
- I will be asking for people to share their description with the class

Sketch a graph to represent this situation:

You put the plug in the bath and turn on the taps.

You leave the bathroom and return to discover that the bath has overflowed.

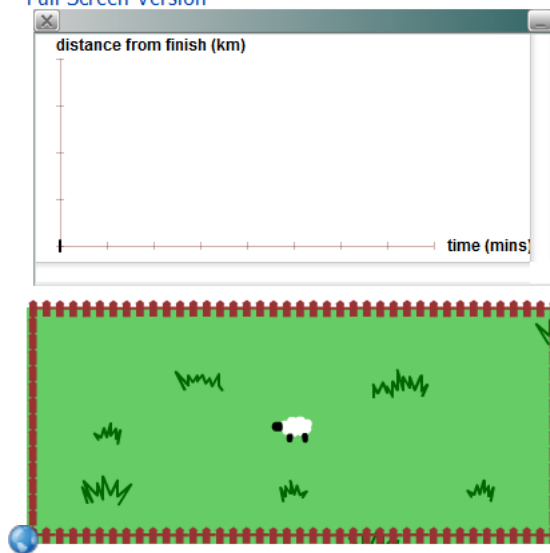
You turn off the taps and pull out the plug to let out some water. You put the plug back in.



## Interactive Website...Let's check it out

In the interactivity below, you can move the little man using the arrow keys on your computer and the graph records how far away from the sheep he is. Before trying this problem, you might like to explore what happens when you move the man in different ways.

[Full Screen Version](#)



A little graphing humor...

NOTES ON WRITING AND DRAWING

## GRAPH A STORY WITH MR. VONNEGUT

SATURDAY, DECEMBER 17TH, 2005

