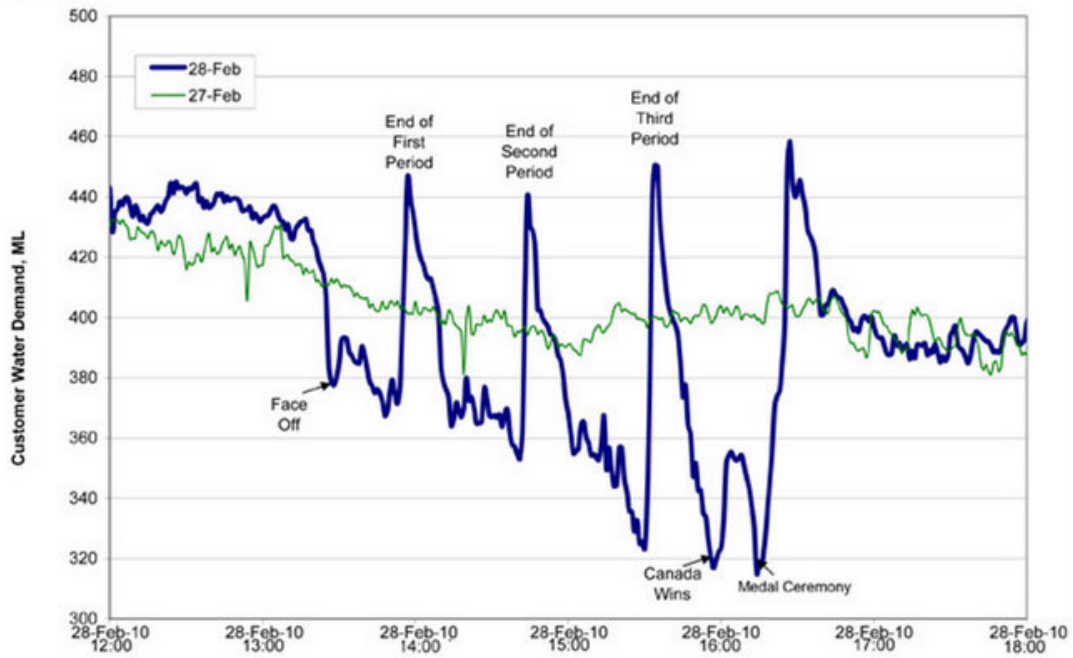Water Consumption in Edmonton During Olympic Gold Medal Hockey Game
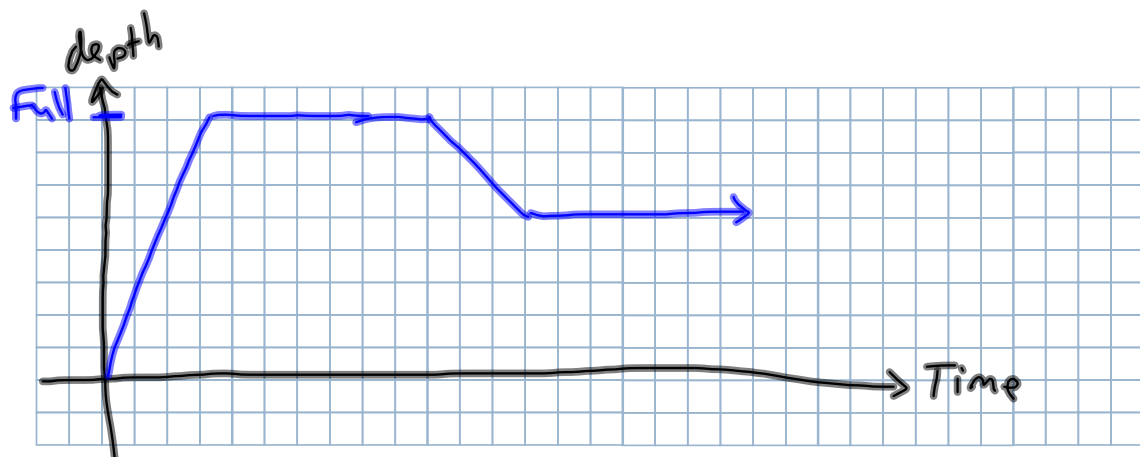
Sketch a graph to represent this situation:
  You put the plug in the bath and turn on the taps.
  You leave the bathroom and return to discover that the bath has overflowed.
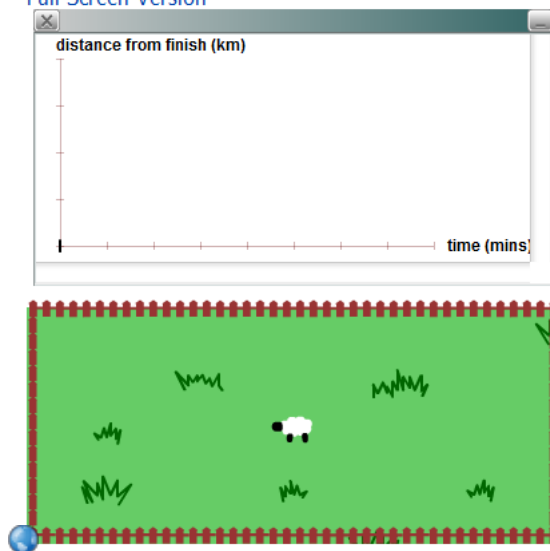  You turn off the taps and pull out the plug to let out some water. You put the plug back in.

# 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.
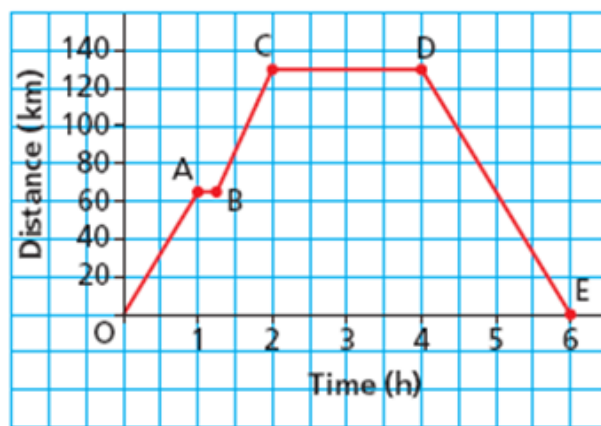
Full Screen Version

distance from finish (km)

time (mins)

Describe the journey for each segment of the graph.

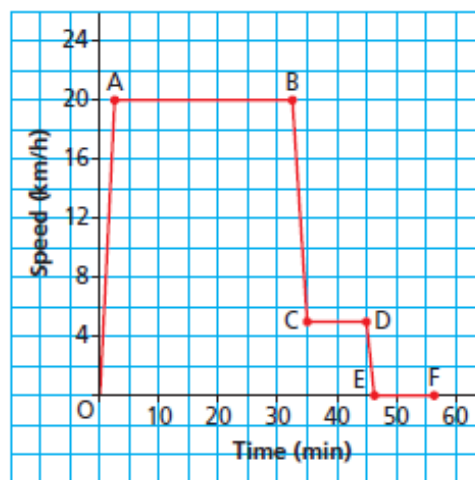The distance between Winnipeg and Winkler is 130 km.

**Day Trip from Winnipeg to Winkler, Manitoba**

Samuel went on a bicycle ride. He accelerated until he reached a speed of 20 km/h, then he cycled for 30 min at approximately 20 km/h. Samuel arrived at the bottom of a hill, and his speed decreased to approximately 5 km/h for 10 min as he cycled up the hill. He stopped at the top of the hill for 10 min.
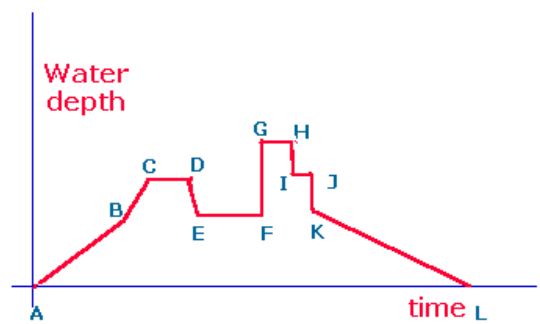
Sketch a graph of speed as a function of time. Label each section of the graph, and explain what it represents.

**Samuel's Bicycle Ride**

| Segment | Journey |
|---|---|
| OA | Samuel's speed increases from 0 to 20 km/h, so the segment goes up to the right. |
| AB | Samuel cycles at approximately 20 km/h for 30 min. His speed does not change, so the segment is horizontal. |
| BC | Samuel's speed decreases to 5 km/h, so the segment goes down to the right. |
| CD | Samuel cycles uphill at approximately 5 km/h for 10 min. His speed does not change, so the segment is horizontal. |
| DE | Samuel slows down to 0 km/h, so his speed decreases and the segment goes down to the right. |
| EF | Samuel remains stopped at 0 km/h for 10 min, so the segment is horizontal. |

Based upon the graph below, answer the following question with as many details as you can justify from the graph.



**Tell the Story...**

If the tub is filled during AB, describe what happens in the rest of the segments (BC, CD, etc.).

# A little graphing humor...

## GRAPH A STORY WITH MR. VONNEGUT

SATURDAY, DECEMBER 17TH, 2005

Practice Problems...

Page 281 - 283

#3, 4, 5, 6, 8, 9, 10, 11, 12, 13, 18