Interpreting Slope and Rate of Change In Context - Step-by-Step Lesson
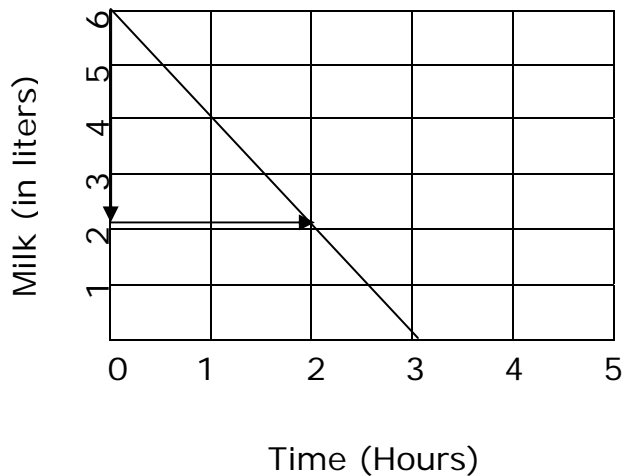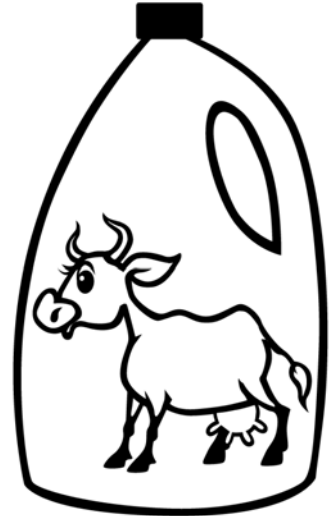
1. Andrew had 6 liters of milk in his jug. He was making milk shakes at the rate of 4 liters of milk shake in 2 hours. He had 2 liters of milk left. The graph shows Andrew situation.

Milk (in liters)

0   1   2   3   4   5

Time (Hours)

a. Find the slope of the line.

b. What does this slope tell us?

c. How many liters of milk is Andrew using per hour?

Explanation:

Step 1a) First we have to see what is being asked.

Find the slope of the line.

Time (in hour)

Slope $= \dfrac{Vertical\ change}{Horizontal\ change} = \dfrac{-4}{2} = $ -2

Step 2b) What does this slope tell us?

Since the slope is -2, we know that while Andrew is making milk shakes he uses 2 liters of milk every hour. The negative value of the slope tells us that the amount of milk in the jug is decreasing.

Step 3c) How many liters of milk is Andrew's using per hour?

The $\dfrac{-4}{2} \dfrac{change\ in\ milk}{change\ in\ hour}$ tells us that Andrew use 2 liters of milk for every one hour.