Name _____          Date _____

**Interpreting Slope and Rate of Change in Context - Guided Lesson Explanation**

### Explanation#1

The problem should fit into the formula:  $y = mx + b$

m is the slope and b is the y-intercept.

$y = \$0.15x + \$50$

1a) Following the same equation, we just plug the miles (70).

$y = \$0.15(70) + \$50$

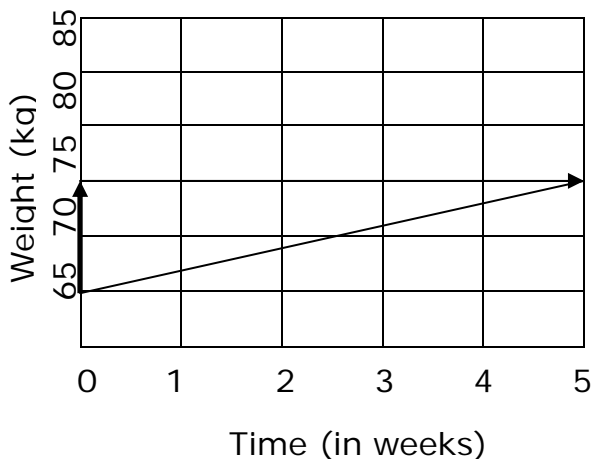1b) What would be the total cost of a motorbike that was driven 90 miles?

We just plug in the mileage as x.

$y = \$0.15 (90) + \$50$

$y = \$13.5 + \$50 = \$63.5$


### Explanation#2

Find the slope of the line.



0    1    2    3    4    5

Time (in weeks)

$\text{Slope} = \dfrac{Vertical\ change}{Horizontal\ change} = \dfrac{10}{5} = 2$

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Step 2b) What does this slope tell us?

Since the slop is 2, we know that Jessica gained 2 kg of weight every week. The positive value of the slope tells us that Jessica's weight is increasing.

Step 3c) What is Jessica's weight gain per week?

The $\dfrac{10}{5} \dfrac{change\ in\ weight}{change\ in\ week}$ tells us that Jessica gained 2 kg of weight every week.

**Explanation#3**

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

The problem should fit into the formula:

y = mx + b

m is the slope and b is the y-intercept.

y = 2x + 7

Step 2b) What would be the total amount of flour that was used for 55 people?

We just plug in the value of x.

y = 2 (55) + 7

y = 110 + 7 = 117