

Name \_\_\_\_\_

Date \_\_\_\_\_

**Understanding the y-Intercept - Guided Lesson Explanation****Explanation#1**

y is 2 times x.

Write this relationship as an equation.

y is 2 times x

$$y = 2x$$

Now plug  $x = 6$  into this equation and solve for y.

$$y = 2x$$

$$y = 2(6) \qquad \text{Plug in } x = 6$$

$$y = 12$$

If Pete purchases 6 ice pops, the total cost is \$18.

**Explanation#2**

Proportional quantities have a constant ratio. This constant ratio is called the constant of variation. The constant of variation often represents a rate or a cost.

To find the constant of variation, divide "amount earned" by "Time spent (hours)".

Now we make a table

No. of hours work	Calculation of total amount he earned	Total money he earned per hour
5	25	\$5
6	30	\$5

The constant of variation is 5. Answer is: \$5



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### **Explanation#3**

r represents the total collection. r is equal to the \$20 for maintenance which is constant and rent for month is \$250. The number of months will vary and is represented by m.

An expression for total collection:

$$r = 250m + 20$$

So the answer is  $r = 250m + 20$ .

