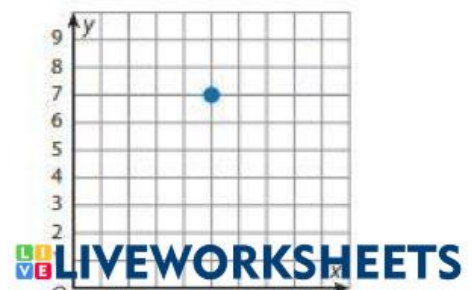


Prepare for Representing Proportional Relationships

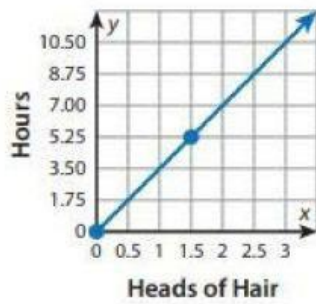
- 1 Think about what you know about graphing. Fill in each box. Use words, numbers, and pictures. Show as many ideas as you can.

Word	In My Own Words	Example
x-coordinate		
y-coordinate		
ordered pair		
origin		

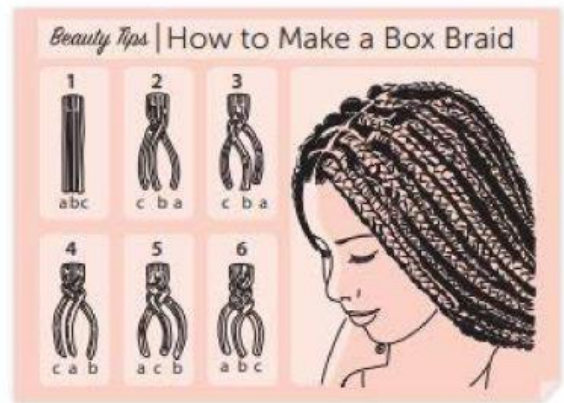
- 2 Fadil says that the ordered pair for the point shown is $(7, 5)$. Explain why Fadil is incorrect.



- 10 Ellema's little sisters want box braids. They complain that Ellema braids too slowly. So, she makes a graph to show them how fast she is.



- a. What does the point $(0, 0)$ mean?
- b. What does the point $(1.5, 5.25)$ mean?



Relationships

- Study the Example showing how to interpret a graph of a proportional relationship. Then solve problems 1–5.

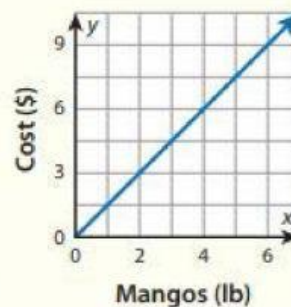
Example

The graph shows the proportional relationship between the pounds of mangos bought and the cost. What do the points $(0, 0)$ and $(3, 4.5)$ mean in this situation? What is the constant of proportionality for this relationship?

The point $(0, 0)$ means that 0 pounds of mangos cost \$0.

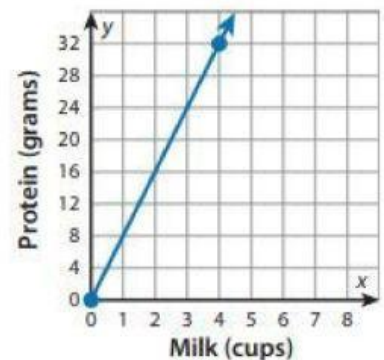
The point $(3, 4.5)$ means that 3 pounds of mangos cost \$4.50.

Look for the point on the line with the x -coordinate of 1. The y -coordinate of this point is the constant of proportionality. The line passes through the point $(1, 1.5)$. So, the constant of proportionality is 1.5.



- 1 The graph shows the proportional relationship between grams of protein and cups of milk.

- What is the constant of proportionality for the relationship between grams of protein and cups of milk?
- What does the point $(0, 0)$ mean in this situation?



- What does the point $(4, 32)$ mean in this situation?

- 2 Both lines on the graph represent proportional relationships. What is the constant of proportionality for each relationship? Explain how you know.

