Pg 122; 3-7, 12-14, 16,18

Tell whether the ordered pair is a solution to the equation. (Example 1)

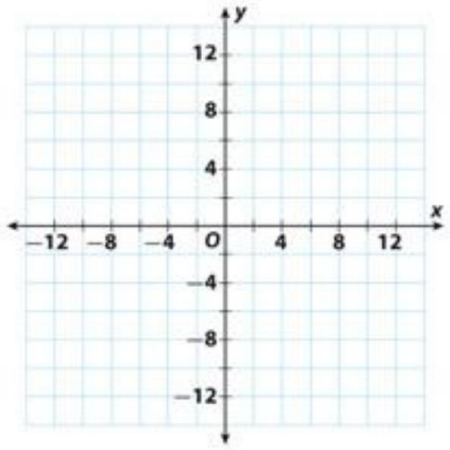
3. $2x + y^2 = 10; (3, 2)$

4. $\frac{1}{2}x - 4y = 4; (10, \frac{1}{2})$

5. $x^2 + y^2 = 2; (0, 1)$

6. Complete the table of values and graph the ordered pairs to find solutions of the equation $4x - 6 = y$. (Explore Activity and Example 2)

x	$4x - 6 = y$	(x, y)
	$4(\quad) - 6 = y$	
	$4(\quad) - 6 = y$	
	$4(\quad) - 6 = y$	
	$4(\quad) - 6 = y$	
	$4(\quad) - 6 = y$	

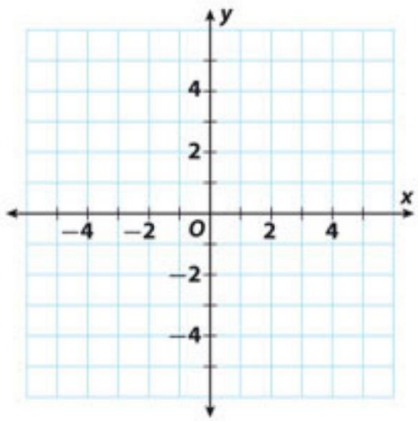


7. Kelly is saving money to buy a concert ticket. Her savings y for x days can be represented by the equation $y = x + 10$. Graph the equation. (Example 2)

More on the next page

12. a. Complete the table for the equation $-2x + y = 3$. Then draw the graph.

x	y

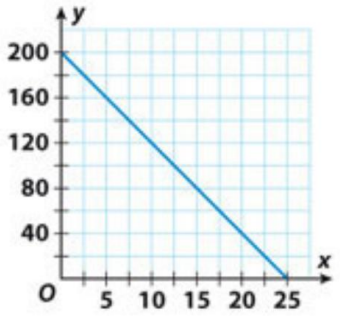


b. Using the graph, locate another solution to the equation. Explain how you can check to see if you are correct.

_____

_____

13. Multiple Representations Trish can run the 200-meter dash in 25 seconds. The equation $8x + y = 200$ gives the distance y that Trish has left to run x seconds after the start of the race. The graph of this equation is shown.



a. Identify three points on the graph and write their coordinates below.

_____

_____

b. Choose one of the ordered pairs and explain what the values mean.

_____

_____

_____

c. Select one ordered pair. Show that the ordered pair is a solution to $8x + y = 200$.

_____

_____

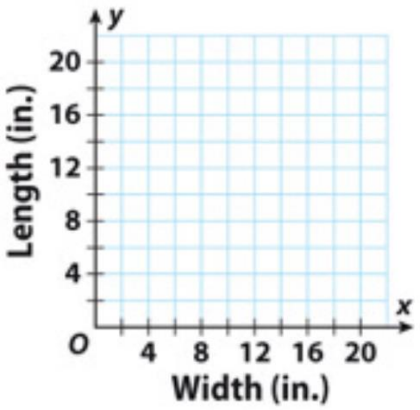
d. Select a point not on the line. Show that the ordered pair represented by this point is not a solution of the equation $8x + y = 200$.

_____

More on the next page

14. Alex is making a rectangular wall hanging from fabric scraps. He has 36 inches of trim to go around the outside border, and he wants to use all of the trim. Let x represent the width of the wall hanging and let y represent the length. The solutions to the equation $2x + 2y = 36$ give the possible dimensions of Alex's wall hanging. Complete the table and graph the equation.

x	y	(x, y)
2		
4		
6		
8		
10		



16. **Justify Reasoning** Jackie wants to earn \$250 this summer by babysitting and dog walking. She earns \$20 each time she babysits and \$15 each time she walks dogs. This situation can be represented by the equation $20x + 15y = 250$. Use the equation to determine whether or not Jackie will earn \$250 if she babysits 8 times and walks dogs 6 times. Justify your answer.

18. **Explain the Error** Chanasia thinks that (3, 2) is a solution of the equation $5y + 10x = 35$ because $5(3) + 10\ (2) = 35$. Explain her error.