

Additional Exercises 4.1
Form I
 Graphing Linear Equations in Two Variables

Plot the given points in a rectangular coordinate system and then state the quadrant in which each point lies.

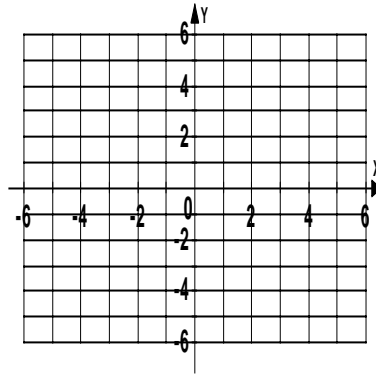
1. $(3, 5)$

2. $(-4, 1)$

3. $(-1, -2)$

4. $(2, 3)$

5. $(3, -4)$



1. _____

2. _____

3. _____

4. _____

5. _____

Determine whether the ordered pair is a solution of the given equation.

6. $(2, -2)$
 $y = x - 4$

6. _____

7. $(-1, -4)$
 $x - y = 3$

7. _____

8. $(2, 0)$
 $2x - y = -4$

8. _____

Find the solution to the equation using the value given for x .

9. $y = 7x$; $x = 6$

9. _____

10. $y = 6x + 5$; $x = 2$

10. _____

11. $y = -3x - 4$; $x = -1$

11. _____

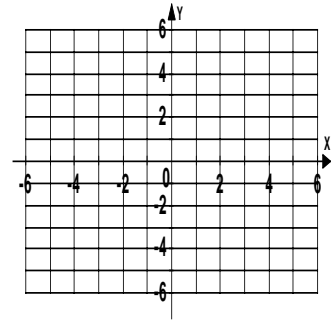
Name _____

Date _____

Graph the linear equation in two variables.

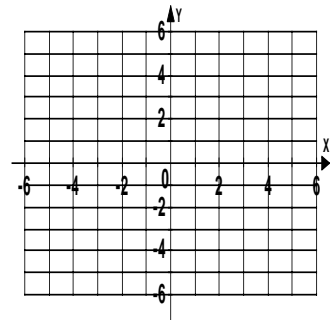
12. $y = 2x$

12.



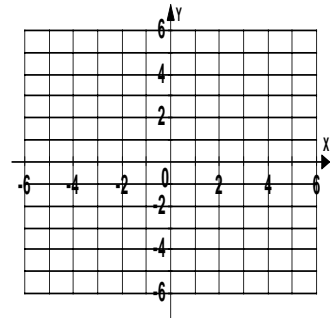
13. $y = -x - 1$

13.



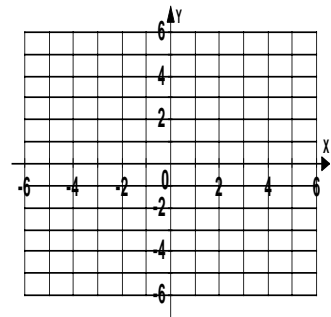
14. $y = 4x + 3$

14.



15. $y = \frac{1}{3}x - 5$

15.

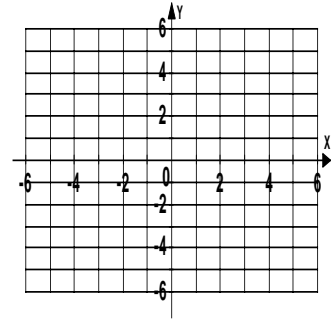


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Date _____

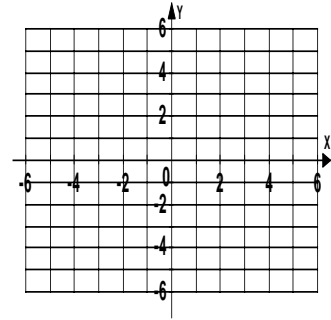
16. $y = 3$

16.



17. $x = 2$

17.



18. The linear equation in two variables $y = 0.10x + 175$ models the total weekly cost, y , in dollars, for renting and driving it x miles. the equation indicates that the rental company charges a fixed amount of \$175 for the week plus a cost of \$0.10 for each mile the car is driven. Find the solution of $y = 0.10x + 175$ using 185 for x .

18. _____

19. The linear equation in two variables $y = 32x$ models the speed, y , in feet per second, of a ball dropped from a tower x seconds after it is dropped. The equation indicates that the speed of the ball increases by 32 feet per second for every second that passes. Find a solution of $y = 32x$ using 3 for x .

19. _____

20. The linear equation in two variables $y = 124 - 8x$ models the amount of water, y , in ounces, remaining in a leaky bucket x minutes after the bucket is filled. The equation indicates that the bucket initially contains 124 ounces of water and loses 8 ounces each minute. Find a solution of $y = 124 - 8x$ using 3 for x .

20. _____

Additional Exercises 4.1
Form II
Graphing Linear Equations in Two Variables

Plot the given points in a rectangular coordinate system and then state the quadrant in which each point lies.

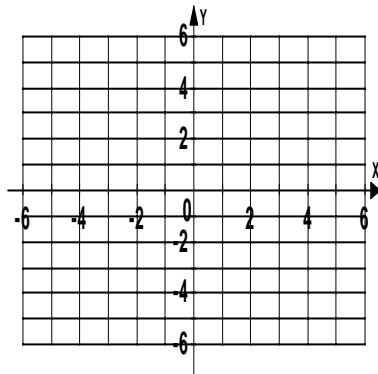
1. $(1, -5)$

2. $(-2, 4)$

3. $(-3, -3)$

4. $(6, 1)$

5. $(-4, 2)$



1. _____

2. _____

3. _____

4. _____

5. _____

Determine whether the ordered pair is a solution of the given equation.

6. $(3, 1)$
 $y = x - 4$

6. _____

7. $(3, -5)$
 $x - y = 2$

7. _____

8. $(1, 2)$
 $2x + 3y = 8$

8. _____

Find the solution to the equation using the value given for x .

9. $y = -7x - 6 ; x = 5$

9. _____

10. $y = -8x - 3 ; x = 4$

10. _____

11. $y = -2x + 5 ; x = -1$

11. _____

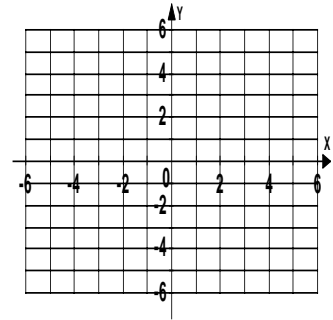
Name _____

Date _____

Graph the linear equation in two variables.

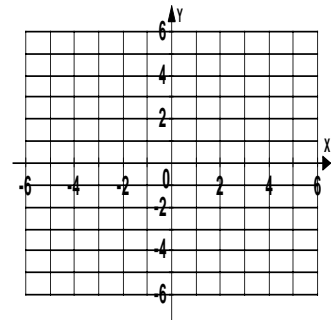
12. $y = -3x$

12.



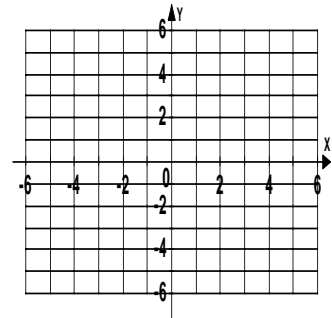
13. $y = 2x - 4$

13.



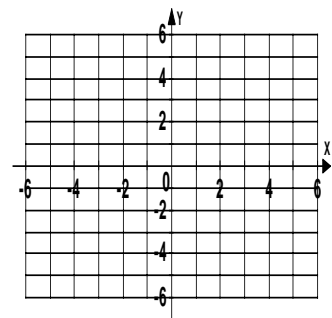
14. $y = \frac{4}{5}x + 1$

14.



15. $y = -\frac{2}{3}x - 3$

15.

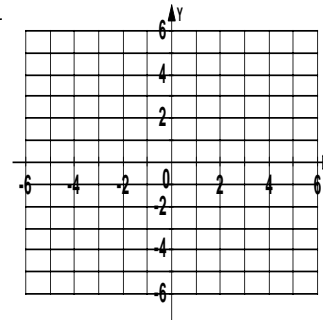


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Date _____

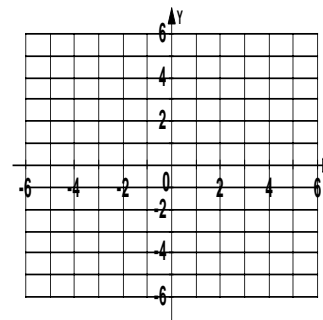
16. $y = 5x$

16.



17. $y = -1$

17.



Solve the problem.

18. The linear equation in two variables $y = 2x + 40$ models the total cost, y , in dollars, for towing a car x miles. The equation indicates that the towing company charges a fixed amount of \$40 to send a truck to pickup the car plus a cost \$2 for each mile the car is towed. Find the solution of $y = 2x + 40$ using 3 for x .

18. _____

19. The linear equation in two variables $y = 0.05x + 12.95$ models the total monthly charge, y , in dollars, for a long distance telephone customer who talked for x minutes long distance. The equation indicates that the customer is charged a fixed amount of \$12.95 per month plus a charge of \$0.05 for each minute of long distance. Find the solution of $y = 0.05x + 12.95$ using 205 for x .

19. _____

20. The linear equation in two variables $y = 500x + 2993$ models the altitude above sea level, y , in feet, of an airplane x minutes after taking off from a high plateau. The equation indicates that the airplane's altitude is initially 2993 feet above sea level and increases 500 feet each minute. Find a solution of $y = 500x + 2993$ using 2 for x .

20. _____

Additional Exercises 4.1
Form III
 Graphing Linear Equations in Two Variables

Plot the given points in a rectangular coordinate system and then state the quadrant in which each point lies.

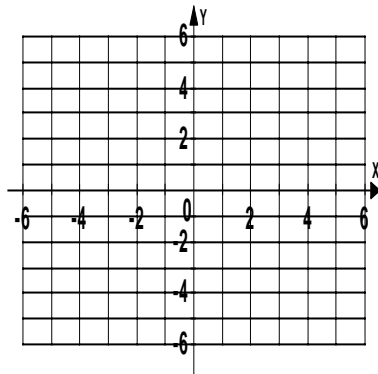
1. $(4, -1)$

2. $(-2, -3)$

3. $(3, 2)$

4. $(2, -3)$

5. $(-1, 4)$



1. _____

2. _____

3. _____

4. _____

5. _____

Determine whether the ordered pair is a solution of the given equation.

6. $\left(-\frac{1}{2}, \frac{1}{4}\right)$
 $x + 2y = 0$

6. _____

7. $(-4, 0)$
 $x - 4 = 0$

7. _____

8. $(6, -4)$
 $2x - 3y = 12$

8. _____

Find the solution to the equation using the value given for x .

9. $y = \frac{2}{3}x$; $x = -4$

9. _____

10. $y = \frac{1}{5}x$; $x = 5$

10. _____

Name _____

Date _____

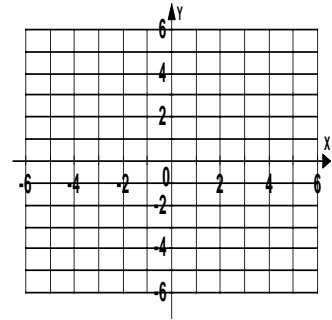
11. $y = -2x - 3$; $x = \frac{1}{2}$

Graph the linear equation in two variables.

11. _____

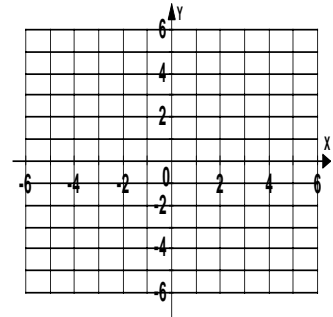
12. $y = \frac{1}{3}x - 2$

12.



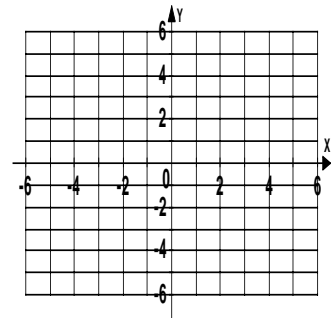
13. $y = -2$

13.



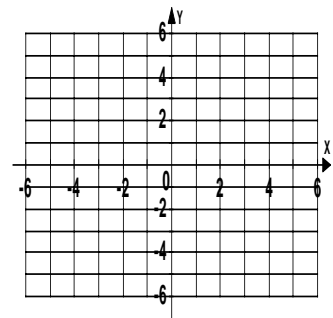
14. $y = -\frac{3}{2}x + 1$

14.



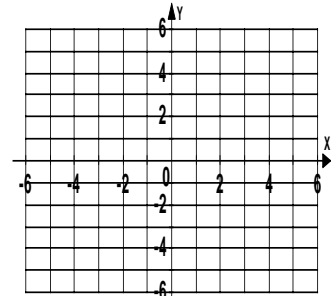
15. $y = \frac{1}{4}x$

15.



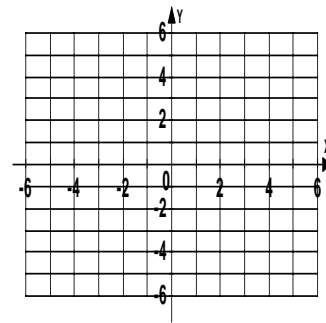
16. $y = -\frac{1}{2}x - 2$

16.



17. $y = \frac{5}{2}x + 1$

17.



Solve the problem.

18. The linear equation in two variables $y = 0.25x + 150$ models the total weekly cost, y , in dollars, for renting and driving it x miles. the equation indicates that the rental company charges a fixed amount of \$150 for the week plus a cost of \$0.25 for each mile the car is driven. Find the solution of $y = 0.25x + 150$ using 215 for x .

18. _____

19. The linear equation in two variables $y = 3x + 45$ models the total cost, y , in dollars, for towing a car x miles. The equation indicates that the towing company charges a fixed amount of \$45 to send a truck to pickup the car plus a cost \$3 for each mile the car is towed. Find the solution of $y = 3x + 45$ using 10 for x .

19. _____

20. The linear equation in two variables $y = 33.5x$ models the speed, y , in feet per second, of a ball dropped from a tower x seconds after it is dropped. The equation indicates that the speed of the ball increases by 33.5 feet per second for every second that passes. Find a solution of $y = 33.5x$ using 4 for x .

20. _____