

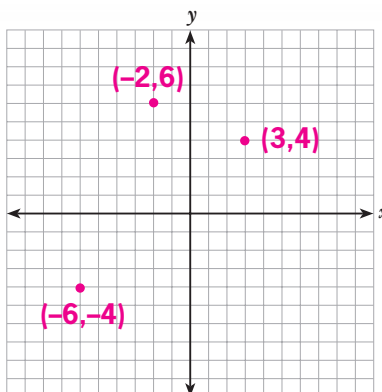
NAME _____

DATE _____

Module Test A Module 7

Graph and label each point on the coordinate plane.

1. (3, 4)
2. (-2, 6)
3. (-6, -4)



Name the quadrant in which each point lies.

4. (-10, 2) II
5. (-3, -1) III

Write an ordered pair solution.

6. Find the solution to $x + 3y = 8$ when $x = 2$.
(2, 2)
7. Find the solution to $y = \frac{x}{3}$ when $y = 14$.
(42, 14)

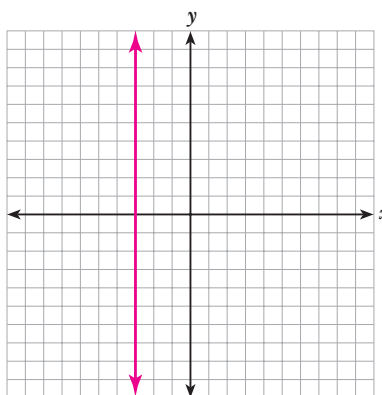
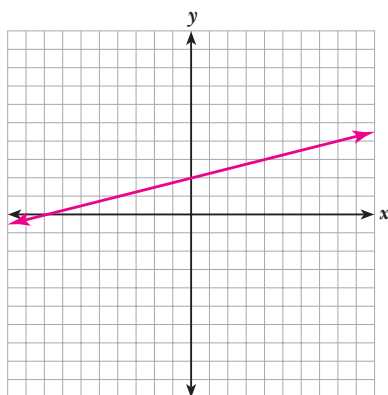
Find three solutions to each equation.

8. $y = -2$ Answers may vary. _____
9. $3x - y = 6$ Answers may vary. _____
10. $-x = 4y$ Answers may vary. _____

Graph each of the following on the coordinate plane. **Points may vary but must lie on the line shown.**

11. $-x + 4y = 8$

12. $x = -3$



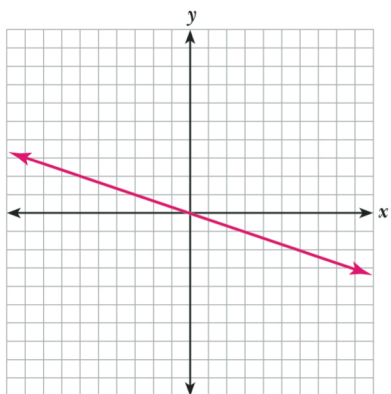
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Find 3 solutions to each equation and enter them in the table.

Then, graph each equation on the coordinate plane. **Answers in table may vary.**

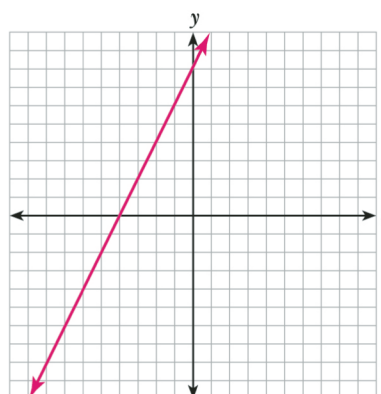
13. $x = -3y$

| x | y |
|---|---|
| | |
| | |
| | |
| | |



14. $y - 2x = 8$

| x | y |
|---|---|
| | |
| | |
| | |
| | |

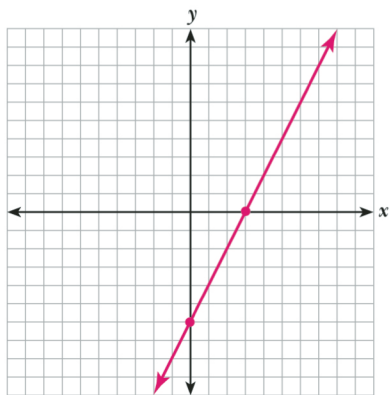


Use the intercept method to graph each equation on the coordinate plane.

15. $2x - y = 6$

x-intercept = 3

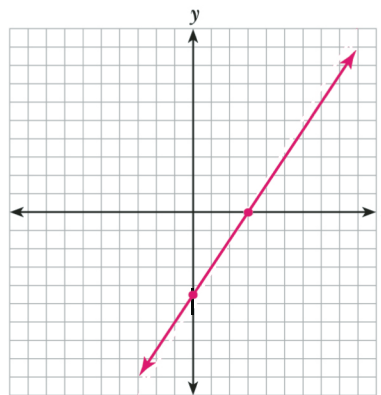
y-intercept = -6



16. $3x - 2y = 9$

x-intercept = 3

y-intercept = -4.5



Find the slope of each line.

17. $y = -3x + 4$

-3

18. $x + 6y = 18$

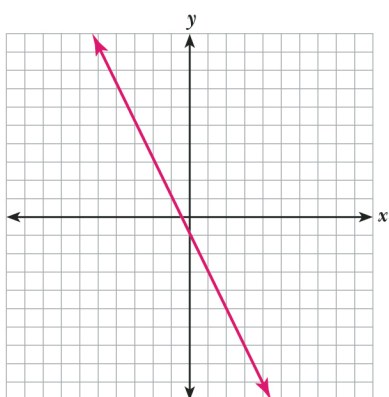
$-\frac{1}{6}$

Use the slope-intercept method to graph each equation on the coordinate plane.

19. $y = -2x - 1$

slope = -2

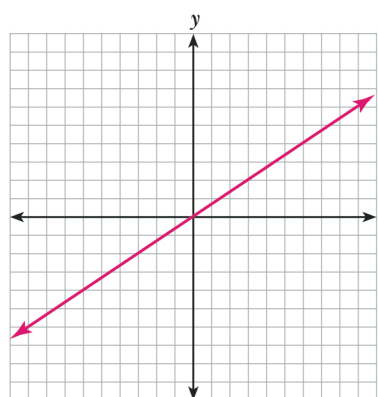
y-intercept = -1



20. $y = \frac{2}{3}x$

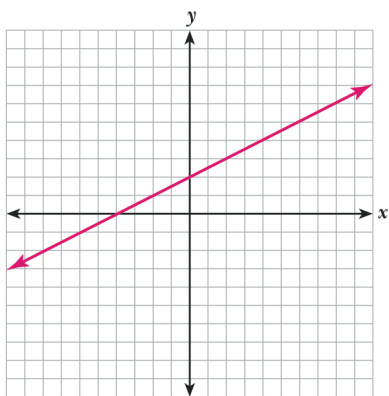
slope = $\frac{2}{3}$

y-intercept = 0

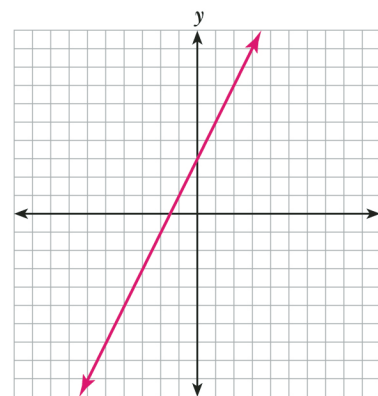


Graph each solution set on the coordinate plane.

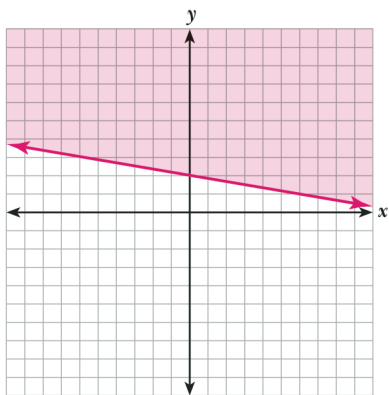
21. $x = 2y - 4$



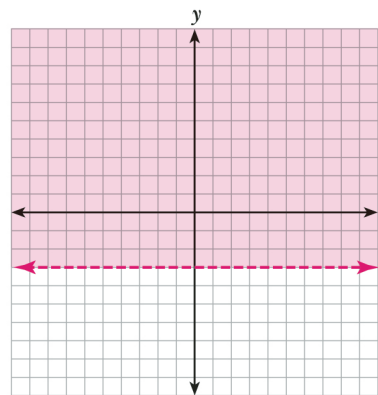
22. $y = 2x + 3$



23. $x + 6y \geq 12$



24. $y > -3$



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Solve each of the following word problems. Show all work.

26. Mandy spent \$3.50 during the ballgame at the concession stand on sodas and popcorn. A soda cost \$0.75. Popcorn cost \$0.50 a bag. If Mandy bought two sodas, how many bags of popcorn did she buy?

four bags of popcorn

27. Mark's Print Shop charges \$10 for designing an invitation and \$0.05 for each copy of the invitation. **Variables may vary.**

- a. Write an equation that describes the situation.

$$p = 10 + 0.05c$$

- b. How much does the print shop charge to design an invitation and print 100 copies of it?

\$15

28. There is a one-day-only sale at Joan's favorite store. All jeans are \$40 a pair, and all shirts are \$10 each. Find all possible combinations of shirts and jeans that Joan can buy if she spends \$130.

| jeans | shirts |
|-------|--------|
| 0 | 13 |
| 1 | 9 |
| 2 | 5 |
| 3 | 1 |

Circle your answers.

29. The rate of a red car, in miles per hour, is five less than twice the rate of a blue car. If x is the rate of the blue car in miles per hour, which one of the following expressions correctly represents the rate of the red car?

- a. $5x + 2$ b. $5x - 2$ **c. $2x - 5$** d. $5 - 2x$

30. The graph of the inequality $x < 3y + 2$ is:

- a. a solid line with shading above
- b. a dashed line with shading above**
- c. a solid line with shading below
- d. a dashed line with shading below

Answer each of the following questions in the space provided.

Show all work.

31. Margie wants to purchase a new computer. There is a \$100 down payment. The remainder of the cost is to be paid monthly in 12 equal payments.

- a. Write an equation to show Margie's total cost (c) if she pays (d) dollars a month.

$$c = 100 + 12d$$

- b. Use the equation to find the monthly payment for Margie if the cost of the computer is \$1,500.

$$\underline{\$116.67}$$

32. Explain how to use the slope-intercept method to graph the equation $y = 2x + 3$.

Possible answer: The slope of the line is 2 and the y-intercept is 3. Because the y-intercept is 3, (0, 3) is a point on the line. Because the slope is 2, from the point (0, 3) rise 2 and run 1 to get the point (1, 5). Because the slope is 2, from the point (0, 3) rise -2 and run -1 to get the point (-1, 1). Draw the line through those points.

