

Algebra I

Worksheet 3.2

Name _____

Decide which of the two points lies on the graph of the line.

1. $x + y = 6$

- a. (2, 2) b. (5, 1)

2. $3x + y = 10$

- a. (3, 1) b. (1, 3)

3. $y - x = 4$

- a. (9, 5) b. (5, 9)

4. $x - y = 2$

- a. (6, 4) b. (5, 7)

5. $x + 3y = -2$

- a. (-6, 6) b. (4, -2)

6. $-4x + y = -11$

- a. (3, 1) b. (1, 3)

7. $2x + 2y = 6$

- a. (-4, 5) b. (6, -3)

8. $6x - 2y = -4$

- a. (-1, -1) b. (-3, -2)

9. $2x - 5y = -14$

- a. (2, -2) b. (-2, 2)

10. $x = -3$

- a. (2, -3) b. (-3, 2)

11. $y = 4$

- a. (6, 4) b. (4, 6)

12. $x = 0$

- a. (0, 7) b. (-4, 0)

Solve the equation for y.

13. $x + y = 7$

14. $-x + y = 4$

15. $-x + y = 0$

16. $3x + y = 10$

17. $-2x + y = 11$

18. $4x + 2y = 6$

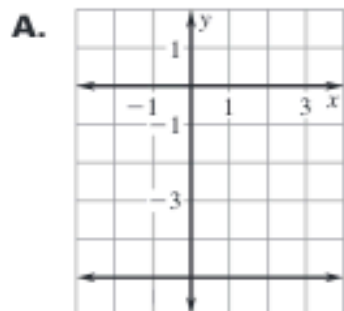
19. $x + 8y = 24$

20. $-6x + 2y = 10$

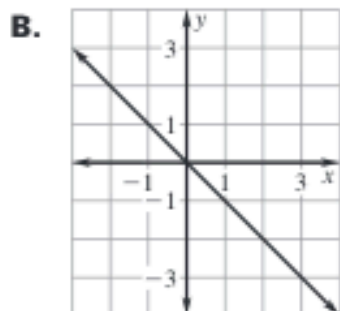
21. $2x + 3y = 12$

Match the equation with its graph.

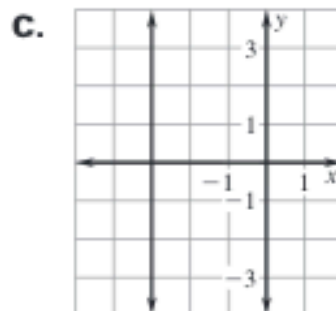
22. $x + y = 0$



23. $x = -3$

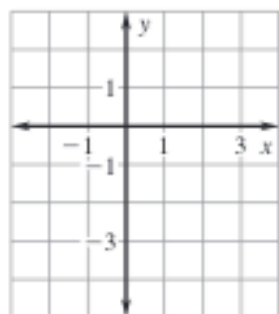


24. $y = -5$

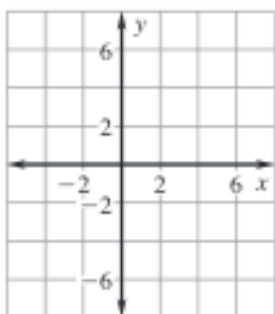


Graph the equation.

25. $x - 2 = 0$



26. $y + 5 = 0$



27. $2y = -6$



Match the equation with its range.

28. $y = 3x - 4, x \geq 2$

29. $y = 3x + 4, x \leq 1$

30. $y = 2x - 4, x \leq 3$

31. $y = 4x - 2, x \leq 3$

32. $y = 4x + 2, x \geq 2$

33. $y = 2x + 4, x \leq 1$

A. $y < 10$

B. $y < 7$

C. $y < 6$

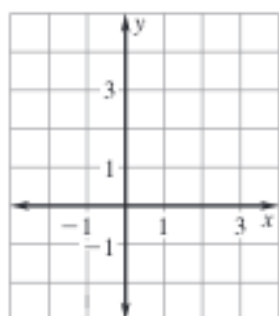
D. $y < 2$

E. $y > 2$

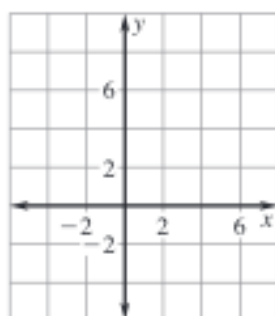
F. $y > 10$

Graph the equation.

34. $y - 4x = 0$



35. $y - x = 5$

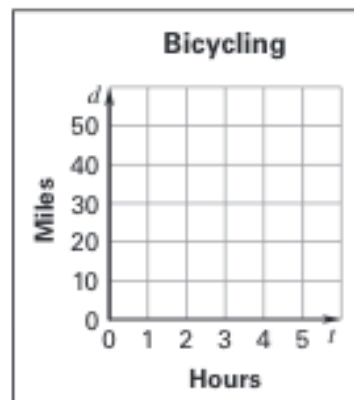
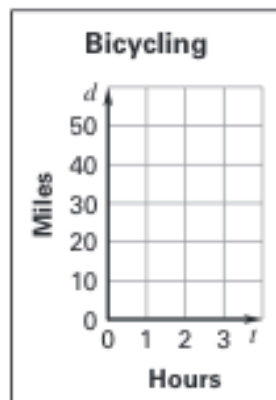


36. $y + 2x = -1$



37. Bicycling You ride your bicycle at a rate of 10 mi/h. The distance d (in miles) that you ride is given by the function $d = 10t$ where t is the time in hours.

- You ride for 3 hours. Graph the function and identify its domain and range. What is the greatest distance you can ride in 3 hours?
- Suppose you ride for 5 hours. Graph the function and identify its domain and range. What is the greatest distance you can ride in 5 hours?



38. Science Experiment You are doing a science experiment in which an object is heated in a kiln. The temperature of the kiln increases 2°F every second. The temperature t (in degrees Fahrenheit) of the kiln every second is given by the function $t = 2s$ where s is the time in seconds.

- You want the kiln to reach a maximum temperature of 700°F . Graph the function and identify its domain and range. How many seconds will it take the kiln to reach 700°F ?
- Suppose you turn off the kiln after 50 seconds. Graph the function and identify its domain and range. What is the temperature when you turn off the kiln?

