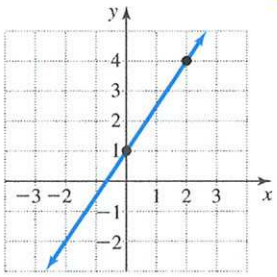
5. What form is used in this section to write an equation of a line from a description of the line?

6. What makes lines look perpendicular on a graph?

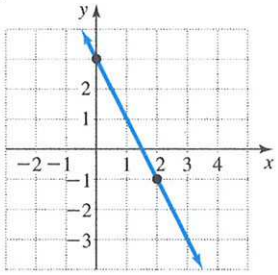
〈1〉 Slope-Intercept Form

Write an equation for each line. Use slope-intercept form if possible. See Example 1.

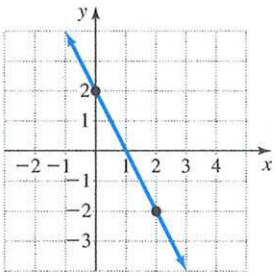
7.



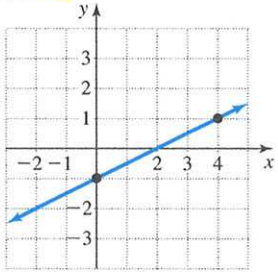
8. VIDEO



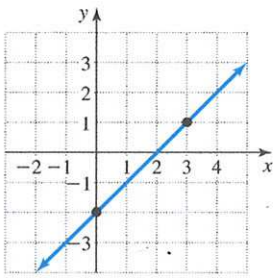
9.



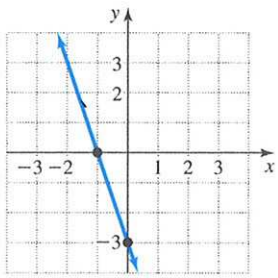
10.



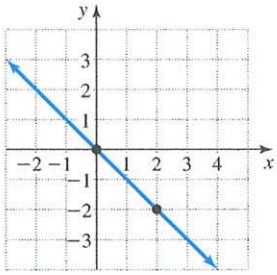
11.



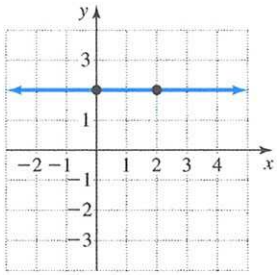
12.



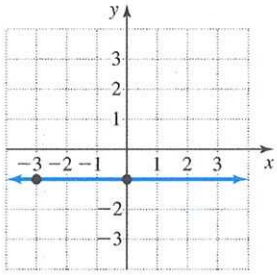
13.



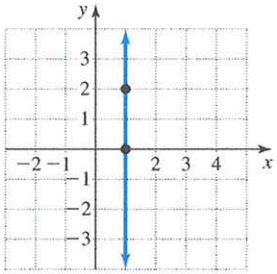
14.



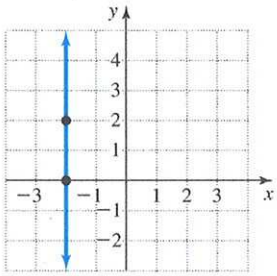
15.



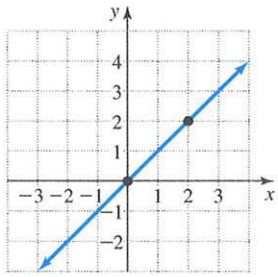
16.



17.



18.



Find the slope and y-intercept for each line that has a slope and y-intercept. See Example 2.

19. $y = 3x - 9$

20. $y = -5x + 4$

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

22. $y = \frac{1}{4}x + 2$

23. $y = 4$

24. $y = -5$

25. $y = x$

26. $y = -x$

27. $y = -3x$
28. $y = 2x$
29. $x + y = 5$
30. $x - y = 4$
31. $x - 2y = 4$
32. $x + 2y = 3$
33. $2x - 5y = 10$
34. $2x + 3y = 9$
35. $2x - y + 3 = 0$
36. $3x - 4y - 8 = 0$

37. $x = -3$
38. $\frac{2}{3}x = 4$

‹2› Standard Form

Write each equation in standard form using only integers. See Example 3.

39. $y = -x + 2$
40. $y = 3x - 5$
41. $y = \frac{1}{2}x + 3$
42. $y = \frac{2}{3}x - 4$
43. $y = \frac{3}{2}x - \frac{1}{3}$
44. $y = \frac{4}{5}x + \frac{2}{3}$
45. $y = -\frac{3}{5}x + \frac{7}{10}$
46. $y = -\frac{2}{3}x - \frac{5}{6}$
47. $\frac{3}{5}x + 6 = 0$
48. $\frac{1}{2}x - 9 = 0$
49. $\frac{3}{4}y = \frac{5}{2}$
50. $\frac{2}{3}y = \frac{1}{9}$
51. $\frac{x}{2} = \frac{3y}{5}$
52. $\frac{x}{8} = -\frac{4y}{5}$
53. $y = 0.02x + 0.5$
54. $0.2x = 0.03y - 0.1$

‹3› Using Slope-Intercept Form for Graphing

Graph each line using its y-intercept and slope.

See Examples 4 and 5.

See the Strategy for Graphing a Line Using y-Intercept and Slope on page 204.

55. $y = 2x - 1$
56. $y = 3x - 2$

57. $y = -3x + 5$
58. $y = -4x + 1$
59. $y = \frac{3}{4}x - 2$
60. $y = \frac{3}{2}x - 4$
61. $2y + x = 0$
62. $2x + y = 0$
63. $3x - 2y = 10$
64. $4x + 3y = 9$