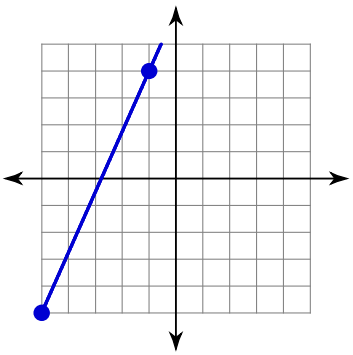
Integrated 1 Unit 1 Name_____

Review of Linear Functions (Lines)

Date_____ Period____

Find the slope of each line.

1)



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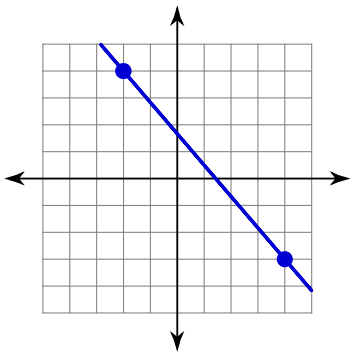

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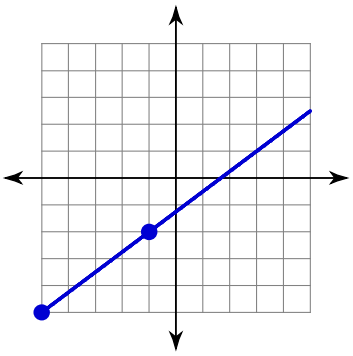

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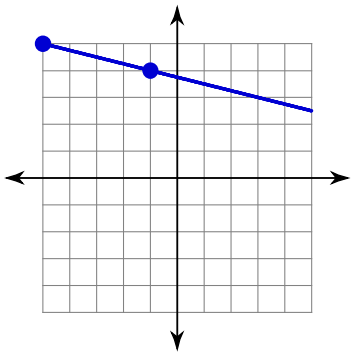


5) $y = -\frac{5}{4}x + 3$

6) $y = -\frac{1}{2}x + 2$

7) $y = -\frac{3}{4}x$

8) $y = -\frac{5}{3}x + 5$

Find the slope of the line through each pair of points.

9) $(17, -6), (-11, 7)$

10) $(3, 4), (-4, -5)$

11) $(-20, 14), (17, 15)$

12) $(11, -18), (-1, -7)$

Find the slope of a line parallel to each given line.

13) $y = \frac{2}{3}x - 2$

14) $y = \frac{9}{5}x - 5$

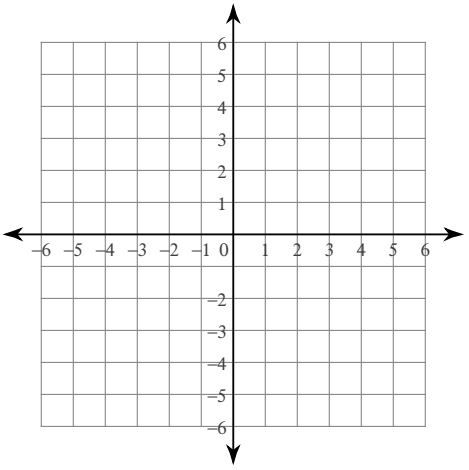
Find the slope of a line perpendicular to each given line.

15) $y = -\frac{1}{2}x - 2$

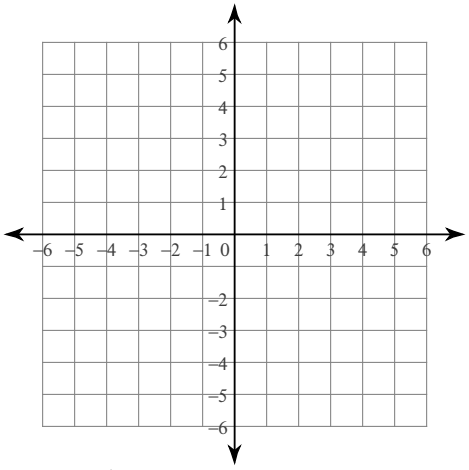
16) $y = -x - 1$

Sketch the graph of each line.

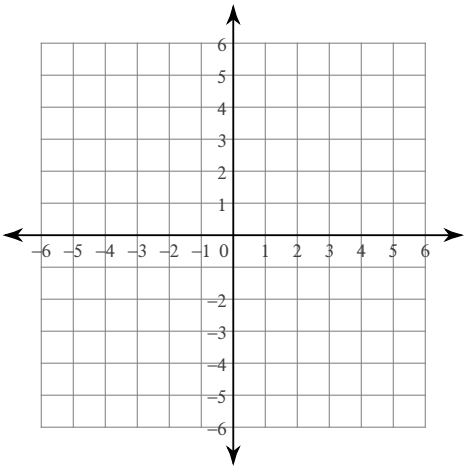
17) $y = \frac{4}{5}x + 2$



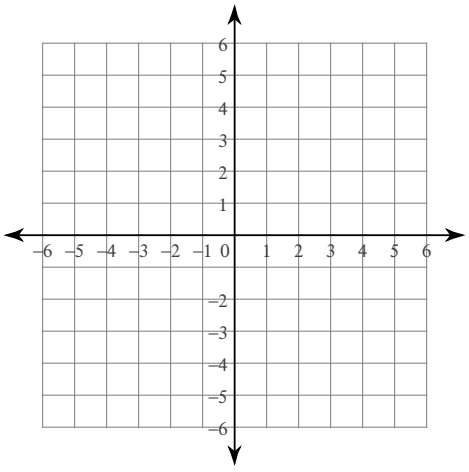
18) $y = \frac{5}{4}x - 2$



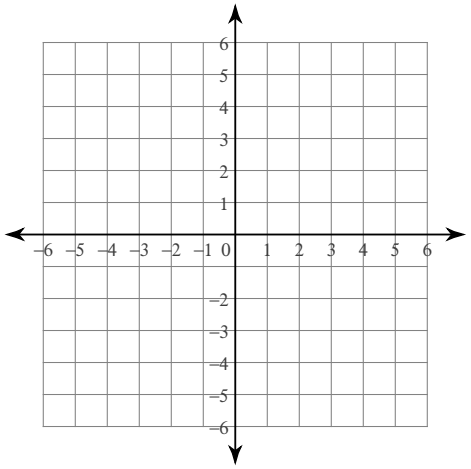
19) $y = \frac{7}{4}x - 4$



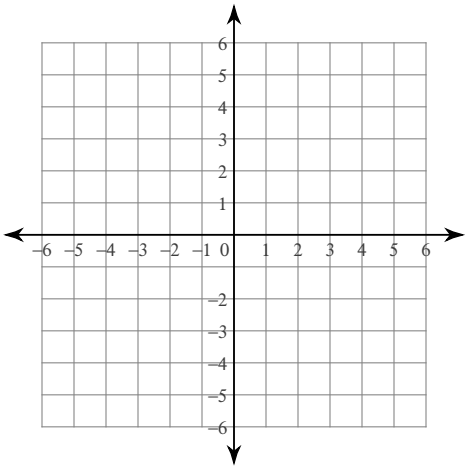
20) $y = \frac{5}{2}x - 5$



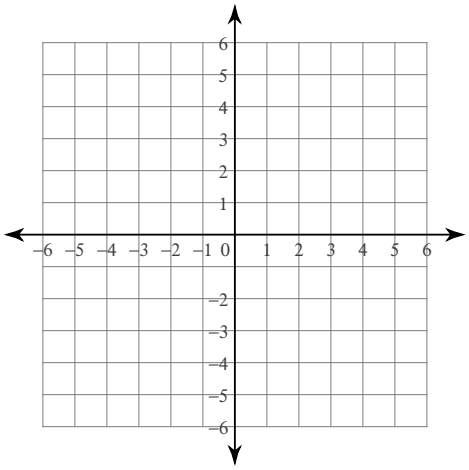
21) $y = \frac{1}{4}x - 4$



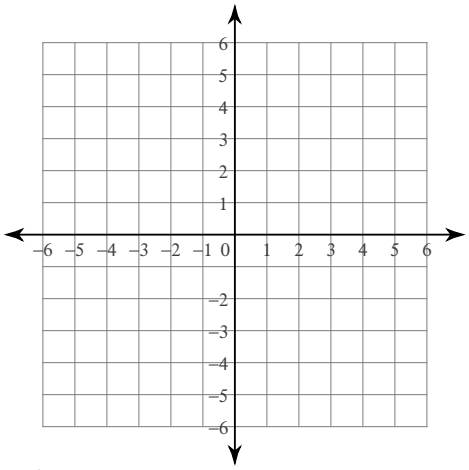
22) $y = -x + 4$



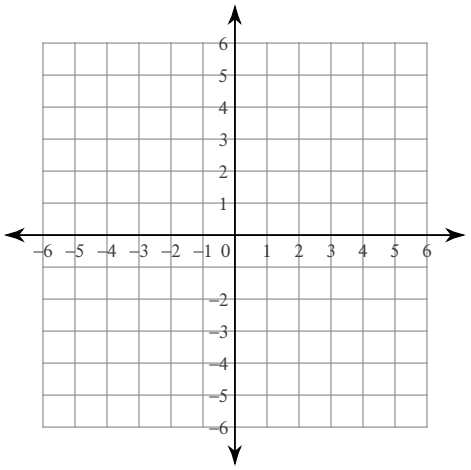
23) x-intercept = −2, y-intercept = −2



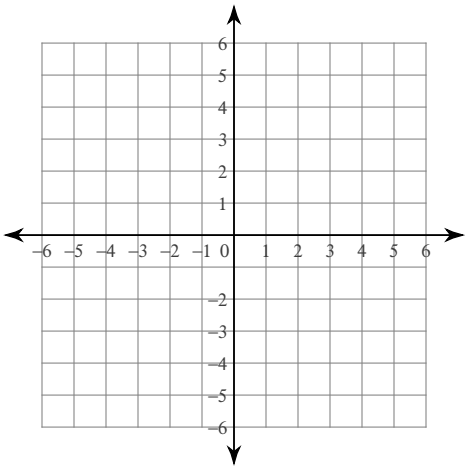
24) x-intercept = 5, y-intercept = 4



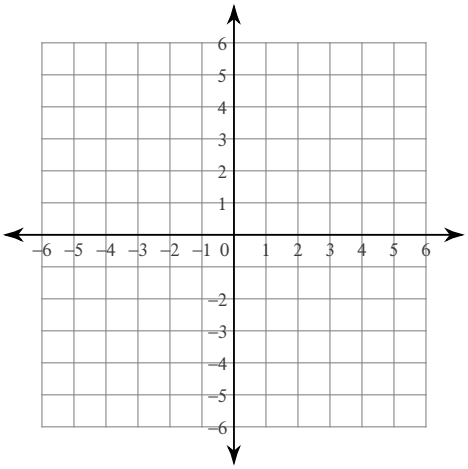
25) $3x + 4y = -12$



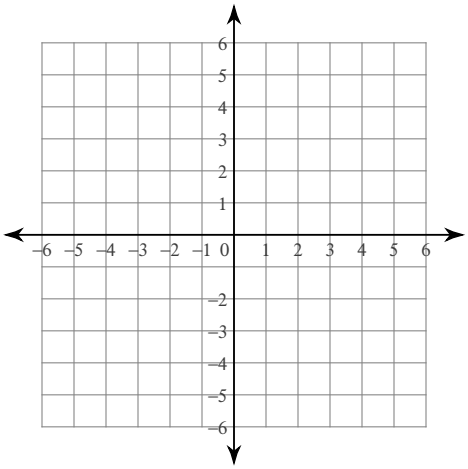
26) $5x + 3y = -6$



27) $x + y = -2$

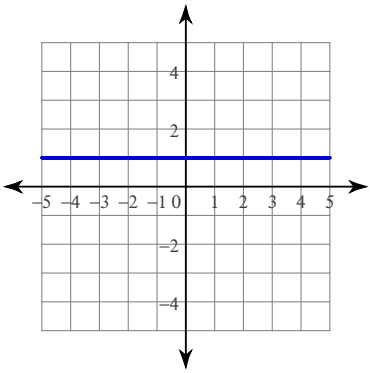


28) $2x + 5y = -10$

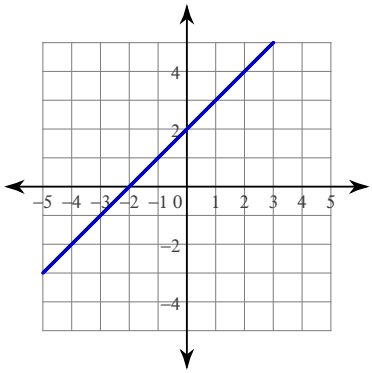


Write the slope-intercept form of the equation of each line.

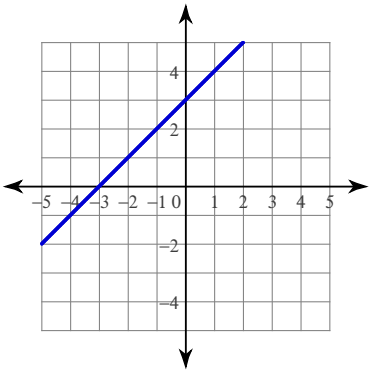
29)



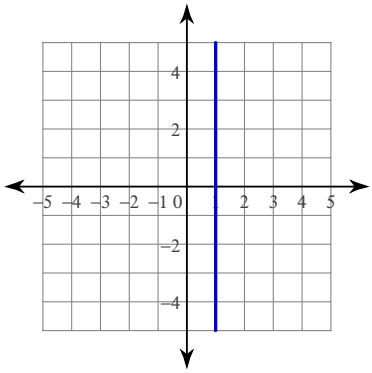
30)



31)



32)



33) $x - 2y = 7$

34) $7x + 2y = -28$

35) $2x + 3y = -6$

36) $2x + 3y = -7$

37) $4x + y = 5$

38) $4x - 3y = 6$

Write the slope-intercept form of the equation of each line given the slope and y-intercept.

39) Slope = -10, y-intercept = -5

40) Slope = $-\frac{9}{5}$, y-intercept = -4

41) Slope = $-\frac{5}{4}$, y-intercept = 5

42) Slope = 7, y-intercept = 5

Write the standard form of the equation of each line given the slope and y-intercept.

43) Slope = -4, y-intercept = 3

44) Slope = $\frac{1}{2}$, y-intercept = -1

45) Slope = $-\frac{9}{2}$, y-intercept = 4

46) Slope = $\frac{1}{5}$, y-intercept = -4

47) Slope = $\frac{5}{4}$, y-intercept = 1

48) Slope = -5, y-intercept = 3

Write the slope-intercept form of the equation of the line through the given point with the given slope.

49) through: $(-1, 1)$, slope = 1

50) through: $(2, 5)$, slope = 2

51) through: $(1, -1)$, slope = $-\frac{3}{5}$

52) through: $(5, 1)$, slope = -1

53) through: $(-4, 3)$, slope $= \frac{1}{4}$

54) through: $(4, 3)$, slope $= \frac{3}{2}$

Write the slope-intercept form of the equation of the line through the given points.

55) through: $(5, 2)$ and $(0, -5)$

56) through: $(5, 5)$ and $(-1, -1)$

57) through: $(2, 1)$ and $(4, 3)$

58) through: $(0, 2)$ and $(3, 5)$

59) through: $(1, 0)$ and $(0, -5)$

60) through: $(0, 3)$ and $(-4, 5)$

Write the slope-intercept form of the equation of the line described.

61) through: $(-5, -3)$, parallel to $y = \frac{2}{5}x - 2$

62) through: $(-1, 2)$, parallel to $y = -\frac{3}{2}x - 2$

63) through: $(-3, -5)$, parallel to $y = 2x + 2$

64) through: $(5, -1)$, parallel to $y = -x - 5$

65) through: $(-2, -1)$, parallel to $y = -3x + 3$

66) through: $(2, 3)$, parallel to $y = \frac{8}{3}x - 4$

67) through: $(-2, -4)$, perp. to $y = -\frac{2}{9}x + 4$

68) through: $(3, -4)$, perp. to $y = -7x$

69) through: $(-2, -4)$, perp. to $y = -\frac{1}{2}x$

70) through: $(4, 5)$, perp. to $y = -x + 2$

71) through: $(-5, 3)$, perp. to $y = -5x + 1$

72) through: $(-1, 1)$, perp. to $y = -x - 1$

Solve each equation.

73) $-8x + 4x = -16$

74) $20 = 4b + 7 + 5$

75) $18 = 6p + 3p$

76) $7 = 6k - 7k$

77) $2v + 7v + 14 = 6v + 2$

78) $23 - 2m = 3 - 2(5m - 2)$

79) $-3(5p - 1) - 2(1 + 3p) = 1 - 6p - 4p$

80) $-\frac{88}{45} = \frac{1}{3}r + \frac{2}{5}r$

81) $\frac{5}{4} = r + \frac{3}{2} - \frac{1}{2}r$

82) $9.89 - 2.8x = 4.5x + 0.4$

83) $-1.476 - 1.6a = 3.6a - 0.28a$

84) $21.882 + 4.9n = 4.2(1.8n + 3.69)$

85) $-24.26674 + 0.1x = -1.93(1 - 4.2x)$

Write the slope-intercept form of the equation of each line.

86) $x - 6y = -30$

87) $2x - y = 2$

Find the slope of each line.

88) $4x + 3y = -9$

89) $3x + y = -1$

90) $2x + 3y = 15$

91) $2x + y = 0$