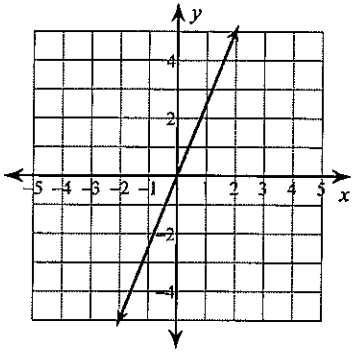


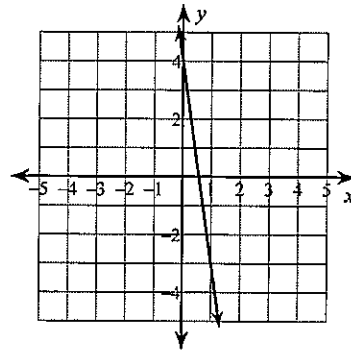
Writing the Equation of a Line

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

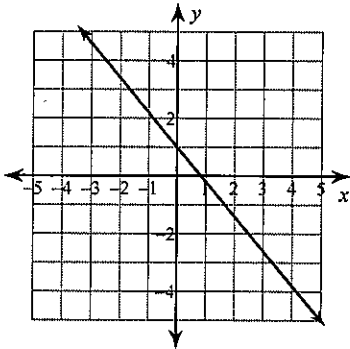
1)



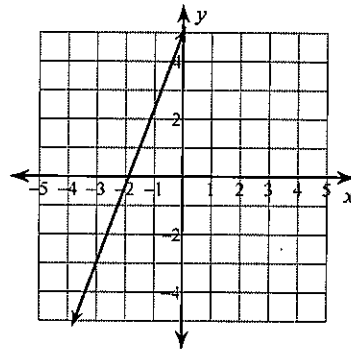
2)



3)



4)



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

5) Slope = $-\frac{7}{4}$, y-intercept = -2

6) Slope = $\frac{3}{4}$, y-intercept = -5

7) Slope = $-\frac{1}{3}$, y-intercept = 1

8) Slope = -1 , y-intercept = -1

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

9) $2x + 7y = 14$

10) $5x - 2y = -7$

11) $5x - 8y = -48$

12) $3x + y = -6$

13) $y - 2 = \frac{3}{7}(x + 5)$

14) $y - 5 = -\frac{1}{5}(x + 5)$

$$15) y - 4 = -\frac{9}{4}(x + 4)$$

$$16) y + 3 = 8(x + 1)$$

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

$$17) \text{ through: } (-2, 3), \text{ slope} = -\frac{7}{2}$$

$$18) \text{ through: } (-2, -5), \text{ slope} = \frac{1}{2}$$

$$19) \text{ through: } (5, 0), \text{ slope} = \frac{2}{5}$$

$$20) \text{ through: } (4, 1), \text{ slope} = \frac{3}{2}$$

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

$$21) \text{ through the origin and } (4, -5)$$

$$22) \text{ through: } (-4, -1) \text{ and } (0, 0)$$

$$23) \text{ through: } (-4, 4) \text{ and } (0, -1)$$

$$24) \text{ with a y-intercept of } -2 \text{ and through } (2, -4)$$

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

25) through: $(1, 2)$, slope = 1

26) through: $(-2, -3)$, slope = $\frac{5}{2}$

27) through: $(2, 3)$, slope = 0

28) through: $(-5, 5)$, slope = $-\frac{2}{5}$

Write the standard form of the equation of the line through the given points.

29) through: $(4, 4)$ and $(3, -4)$

30) through: $(4, 1)$ and $(-4, -5)$

31) through: $(3, 4)$ and with a y-intercept of 5

32) through: $(-3, 4)$ and with an x-intercept of 4

Write the standard form of the equation of the line described.

33) through: $(3, -3)$, parallel to $y = 3$

34) through: $(-5, -1)$, parallel to $y = -\frac{2}{5}x + 3$

35) through: $(4, 2)$, parallel to $x = 0$

36) through: $(5, 1)$, parallel to $y = \frac{3}{2}x - 3$

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

38) through: $(2, -4)$, perp. to $y = \frac{3}{2}x$

39) through: $(2, -2)$, perp. to $y = \frac{4}{3}x - 1$

40) through: $(2, 5)$, perp. to $y = \frac{3}{5}x$

Answers to Writing the Equation of a Line

1) $y = \frac{5}{2}x$

5) $y = -\frac{7}{4}x - 2$

9) $y = -\frac{2}{7}x + 2$

13) $y = \frac{3}{7}x + \frac{29}{7}$

17) $y = -\frac{7}{2}x - 4$

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

25) $x - y = -1$

29) $8x - y = 28$

33) $y = -3$

37) $x - y = 2$

2) $y = -7x + 4$

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

10) $y = \frac{5}{2}x + \frac{7}{2}$

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

18) $y = \frac{1}{2}x - 4$

22) $y = \frac{1}{4}x$

26) $5x - 2y = -4$

30) $3x - 4y = 8$

34) $2x + 5y = -15$

38) $2x + 3y = -8$

3) $y = -\frac{6}{5}x + 1$

7) $y = -\frac{1}{3}x + 1$

11) $y = \frac{5}{8}x + 6$

15) $y = -\frac{9}{4}x - 5$

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

23) $y = -\frac{5}{4}x - 1$

27) $y = 3$

31) $x + 3y = 15$

35) $x = 4$

39) $3x + 4y = -2$

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

8) $y = -x - 1$

12) $y = -3x - 6$

16) $y = 8x + 5$

20) $y = \frac{3}{2}x - 5$

24) $y = -x - 2$

28) $2x + 5y = 15$

32) $4x + 7y = 16$

36) $3x - 2y = 13$

40) $5x + 3y = 25$