

Writing Equations

Date _____ Period _____

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

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

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

3) Slope = $-\frac{1}{4}$, y-intercept = 3

4) Slope = -2 , y-intercept = 0

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

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

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

7) $8x - 3y = 6$

8) $x - y = 2$

9) $7x - 6y = -6$

10) $2x + y = 3$

$$11) 3x - 2y = -2$$

$$12) 5x + 6y = 36$$

$$13) y - 4 = 0$$

$$14) y - 1 = x + 4$$

$$15) y + 3 = -\frac{1}{5}(x + 5)$$

$$16) y - 1 = 4(x + 1)$$

$$17) y + 2 = \frac{1}{3}(x - 3)$$

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

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

$$19) \text{ through: } (0, 5), \text{ slope} = \frac{7}{2}$$

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

$$21) \text{ through: } (-1, -1), \text{ slope} = -1$$

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

23) through: $(2, 1)$, slope = $-\frac{1}{2}$

24) through: $(5, -4)$, slope = $\frac{1}{8}$

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

25) through: $(0, 0)$ and $(-3, -3)$

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

27) through: $(-1, 1)$ and $(0, -4)$

28) through: $(-3, -2)$ and $(0, -1)$

29) through: $(4, -5)$ and $(0, 4)$

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

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

31) through: $(-4, -2)$, parallel to $y = -\frac{3}{4}x + 5$

32) through: $(2, -4)$, parallel to $y = -\frac{5}{2}x + 3$

33) through: $(-2, 3)$, parallel to $y = x - 2$

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

35) through: $(3, 1)$, parallel to $y = \frac{4}{3}x + 2$

36) through: $(1, 0)$, parallel to $y = \frac{1}{2}x$

37) through: $(3, 4)$, perp. to $y = -\frac{8}{9}x + 3$

38) through: $(0, -1)$, perp. to $y = \frac{1}{3}x + 4$

39) through: $(-3, 4)$, perp. to $y = \frac{3}{5}x - 4$

40) through: $(3, -4)$, perp. to $y = 2x + 3$

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

42) through: $(-5, -2)$, perp. to $y = 4$

Writing Equations

Date _____ Period _____

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

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

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

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

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

3) Slope = $-\frac{1}{4}$, y-intercept = 3

$$y = -\frac{1}{4}x + 3$$

4) Slope = -2 , y-intercept = 0

$$y = -2x$$

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

$$y = \frac{7}{3}x + 3$$

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

$$y = -3x - 4$$

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

7) $8x - 3y = 6$

$$y = \frac{8}{3}x - 2$$

8) $x - y = 2$

$$y = x - 2$$

9) $7x - 6y = -6$

$$y = \frac{7}{6}x + 1$$

10) $2x + y = 3$

$$y = -2x + 3$$

$$11) 3x - 2y = -2$$

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

$$12) 5x + 6y = 36$$

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

$$13) y - 4 = 0$$

$$y = 4$$

$$14) y - 1 = x + 4$$

$$y = x + 5$$

$$15) y + 3 = -\frac{1}{5}(x + 5)$$

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

$$16) y - 1 = 4(x + 1)$$

$$y = 4x + 5$$

$$17) y + 2 = \frac{1}{3}(x - 3)$$

$$y = \frac{1}{3}x - 3$$

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

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

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

$$19) \text{ through: } (0, 5), \text{ slope} = \frac{7}{2}$$

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

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

$$y = \frac{4}{3}x - \frac{20}{3}$$

$$21) \text{ through: } (-1, -1), \text{ slope} = -1$$

$$y = -x - 2$$

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

$$y = -\frac{3}{4}x + 2$$

23) through: $(2, 1)$, slope = $-\frac{1}{2}$

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

24) through: $(5, -4)$, slope = $\frac{1}{8}$

$$y = \frac{1}{8}x - \frac{37}{8}$$

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

25) through: $(0, 0)$ and $(-3, -3)$

$$y = x$$

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

$$y = 4x + 5$$

27) through: $(-1, 1)$ and $(0, -4)$

$$y = -5x - 4$$

28) through: $(-3, -2)$ and $(0, -1)$

$$y = \frac{1}{3}x - 1$$

29) through: $(4, -5)$ and $(0, 4)$

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

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

$$y = 5$$

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

31) through: $(-4, -2)$, parallel to $y = -\frac{3}{4}x + 5$

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

32) through: $(2, -4)$, parallel to $y = -\frac{5}{2}x + 3$

$$y = -\frac{5}{2}x + 1$$

33) through: $(-2, 3)$, parallel to $y = x - 2$

$$y = x + 5$$

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

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

35) through: $(3, 1)$, parallel to $y = \frac{4}{3}x + 2$

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

36) through: $(1, 0)$, parallel to $y = \frac{1}{2}x$

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

37) through: $(3, 4)$, perp. to $y = -\frac{8}{9}x + 3$

$$y = \frac{9}{8}x + \frac{5}{8}$$

38) through: $(0, -1)$, perp. to $y = \frac{1}{3}x + 4$

$$y = -3x - 1$$

39) through: $(-3, 4)$, perp. to $y = \frac{3}{5}x - 4$

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

40) through: $(3, -4)$, perp. to $y = 2x + 3$

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

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

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

42) through: $(-5, -2)$, perp. to $y = 4$

$$x = -5$$