

Assignment

Date _____ Period _____

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

1) through: $(2, -3)$, perp. to $y = \frac{2}{7}x + 1$

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

3) through: $(2, 3)$, parallel to $y = -5x - 4$

4) through: $(5, 5)$, parallel to $y = \frac{6}{5}x + 5$

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

5) through: $(1, -4)$ and $(-3, -2)$

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

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

7) through: $(3, -2)$, slope = $-\frac{3}{8}$

8) through: $(1, -5)$, slope = -3

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

9) $-3 = 3y - x$

10) $-2y - 3 = -x$

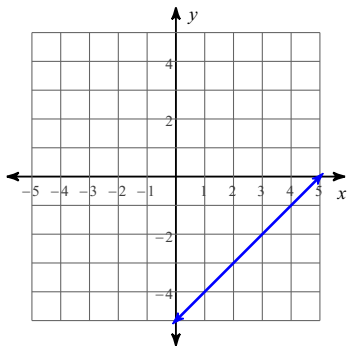
11) $3x + 1 = 2y$

12) $4y + 10x = 16$

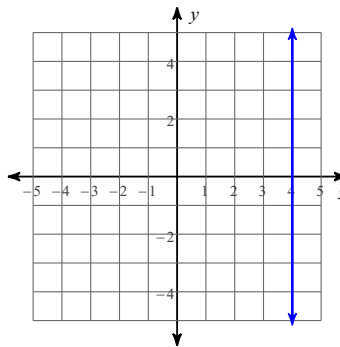
13) $y = -1$

14) $x - y = -6$

15)



16)



Find each percent change. State if it is an increase or a decrease.

17) From 146.8 to 261

18) From 222 to 193

Solve each problem.

19) 52% of what is 21?

20) 152 is what percent of 159?

21) What percent of 149 is 78?

22) 139 is 11% of what?

Evaluate each using the values given.

23) $y \times \frac{x}{4} - |y|$; use $x = -4$, and $y = 4$

24) $\frac{h}{2} - kj - h$; use $h = -10$, $j = -9$, and $k = 4$

25) $\frac{z(yx + x)}{6}$; use $x = -9$, $y = 9$, and $z = -5$

26) $n + 9 - (m^3)^2$; use $m = -1$, and $n = 5$

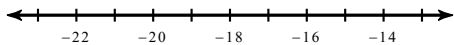
Find the value of x or y so that the line through the points has the given slope.

27) $(-2, -1)$ and $(x, 0)$; slope: $-\frac{1}{6}$

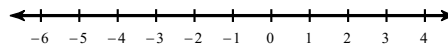
28) $(x, 3)$ and $(-7, 1)$; slope: $\frac{1}{4}$

Solve each inequality and graph its solution.

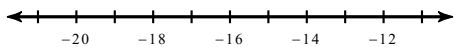
29) $-14 \leq \frac{n-8}{2}$



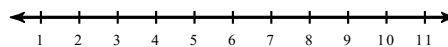
30) $-24 \leq -3(7+a)$



31) $5(r+7) \geq -40$



32) $-52 < -4(10+x)$



Solve each equation.

33) $\frac{|10+4k|}{10} = 1$

34) $|2x+7| - 6 = -1$

35) $3 + |5n+6| = 37$

36) $6 - |7a-1| = -63$

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

1) through: $(2, -3)$, perp. to $y = \frac{2}{7}x + 1$

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

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

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

3) through: $(2, 3)$, parallel to $y = -5x - 4$

$$y = -5x + 13$$

4) through: $(5, 5)$, parallel to $y = \frac{6}{5}x + 5$

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

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

5) through: $(1, -4)$ and $(-3, -2)$

$$y = -\frac{1}{2}x - \frac{7}{2}$$

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

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

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

7) through: $(3, -2)$, slope = $-\frac{3}{8}$

$$y = -\frac{3}{8}x - \frac{7}{8}$$

8) through: $(1, -5)$, slope = -3

$$y = -3x - 2$$

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

9) $-3 = 3y - x$

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

10) $-2y - 3 = -x$

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

11) $3x + 1 = 2y$

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

12) $4y + 10x = 16$

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

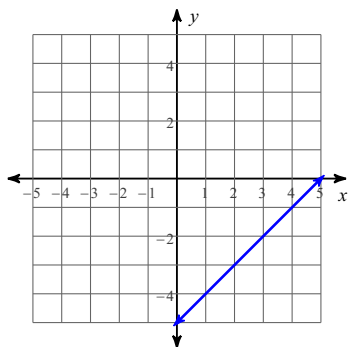
13) $y = -1$

$$y = -1$$

14) $x - y = -6$

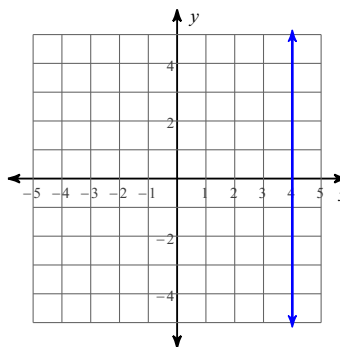
$$y = x + 6$$

15)



$$y = x - 5$$

16)



$$x = 4$$

Find each percent change. State if it is an increase or a decrease.

17) From 146.8 to 261

77.8% increase

18) From 222 to 193

13.1% decrease

Solve each problem.

19) 52% of what is 21?

40.4

20) 152 is what percent of 159?

95.6%

21) What percent of 149 is 78?

52.3%

22) 139 is 11% of what?

1263.6

Evaluate each using the values given.

23) $y \times \frac{x}{4} - |y|$; use $x = -4$, and $y = 4$

-8

24) $\frac{h}{2} - kj - h$; use $h = -10$, $j = -9$, and $k = 4$

41

25) $\frac{z(yx + x)}{6}$; use $x = -9$, $y = 9$, and $z = -5$

75

26) $n + 9 - (m^3)^2$; use $m = -1$, and $n = 5$

13

Find the value of x or y so that the line through the points has the given slope.

27) $(-2, -1)$ and $(x, 0)$; slope: $-\frac{1}{6}$

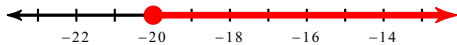
-8

28) $(x, 3)$ and $(-7, 1)$; slope: $\frac{1}{4}$

1

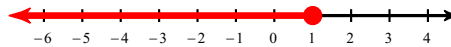
Solve each inequality and graph its solution.

$$29) -14 \leq \frac{n-8}{2}$$



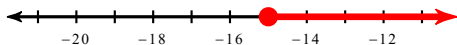
$$n \geq -20$$

$$30) -24 \leq -3(7+a)$$



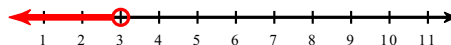
$$a \leq 1$$

$$31) 5(r+7) \geq -40$$



$$r \geq -15$$

$$32) -52 < -4(10+x)$$



$$x < 3$$

Solve each equation.

$$33) \frac{|10+4k|}{10} = 1$$

$$\{0, -5\}$$

$$34) |2x+7| - 6 = -1$$

$$\{-1, -6\}$$

$$35) 3 + |5n+6| = 37$$

$$\left\{\frac{28}{5}, -8\right\}$$

$$36) 6 - |7a-1| = -63$$

$$\left\{10, -\frac{68}{7}\right\}$$