

Assignment

Sketch the graph of each line and label the intercepts.

1) $y = -\frac{7}{3}x + 5$

2) x -intercept = -3 , y -intercept = 4

3) $0 = -y$

4) $-5 = x + y$

Sketch the graph of each linear inequality.

5) $7x + 3y < 6$

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

Evaluate each function.

7) $k(x) = 3x + 5$; Find $k\left(\frac{x}{3}\right)$

A) $-12x + 5$

B) $x + 5$

C) $14 + 3x$

D) $3x^2 + 5$

8) $p(x) = 5 + \frac{1}{2}x$; Find $p\left(\frac{3}{4}\right)$

A) $\frac{43}{10}$

B) $\frac{14}{3}$

C) $\frac{13}{3}$

D) $\frac{43}{8}$

9) $g(n) = n + 2$; Find $g(-3)$

A) 4

B) -4

C) -1

D) 11

10) $h(a) = a - 4$; Find $h(2)$

A) -3

B) -2

C) -11

D) 2

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

11) Slope = $-\frac{3}{2}$, y -intercept = -5

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

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

C) $2x + 10y = 3$

D) $5x + 10y = -3$

12) Slope = $-\frac{8}{3}$, y -intercept = -5

A) $6x + 8y = 3$

B) $3x + 8y = -6$

C) $8x - 3y = 15$

D) $8x + 3y = -15$

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

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

- A) $y = -x - 4$ B) $y = -6x - 4$
C) $y = x - 4$ D) $y = 2x - 4$

14) Slope = -8 , y-intercept = -5

- A) $y = -5x - 8$ B) $y = 5x - 8$
C) $y = 2x - 5$ D) $y = -8x - 5$

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

15) through: $(0, 0)$ and $(-2, -4)$

- A) $y = 2x$ B) $y = -2x$
C) $y = -2$ D) $y = 5x - 2$

16) through: $(4, -3)$ and $(-5, 5)$

- A) $y = -\frac{8}{9}x + \frac{5}{9}$
B) $y = \frac{5}{9}x - \frac{8}{9}$
C) $y = -\frac{5}{9}x - \frac{8}{9}$
D) $y = -\frac{8}{9}x - \frac{5}{9}$

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

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

- A) $3x + 5y = 20$ B) $3x - 5y = -20$
C) $4x - y = 4$ D) $x + y = 4$

18) through: $(1, 5)$, parallel to $y = 2x - 3$

- A) $2x - y = -3$ B) $4x - 3y = 1$
C) $3x + 2y = 1$ D) $2x + 3y = 1$

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

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

- A) $y = 2x$ B) $y = -2x$
C) $y = -2$ D) $y = -\frac{1}{5}x - \frac{2}{5}$

20) through: $(1, -5)$, perp. to $y = \frac{1}{4}x - 1$

- A) $y = 4x - 1$ B) $y = -x + 4$
C) $y = -x - 4$ D) $y = -4x - 1$

Assignment

Sketch the graph of each line and label the intercepts.

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

2) x -intercept = -3 , y -intercept = -2

3) $0 = -x - 1 + y$

4) $2x - 15 = 5y$

Sketch the graph of each linear inequality.

5) $7x + 3y > 9$

6) $y > 5x - 5$

Evaluate each function.

7) $g(a) = a^2 + 4a$; Find $g(-2a)$

- A) $9a^2 + 12a$ B) $-3 - 2a + a^2$
 C) $4a^2 - 8a$ D) $4a^2 + 8a$

8) $g(t) = -\frac{1}{3}t - \frac{4}{3}$; Find $g\left(-\frac{2}{5}\right)$

- A) $-\frac{17}{9}$ B) $-\frac{6}{5}$
 C) $-\frac{5}{3}$ D) $-\frac{29}{27}$

9) $p(a) = a - 5$; Find $p(-4)$

- A) -6 B) -14
 C) -5 D) -9

10) $w(x) = 2|-3x + 3|$; Find $w(-4)$

- A) 36 B) 12
 C) 30 D) 6

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

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

- A) $3x + 4y = 16$
 B) $3x + 4y = -16$
 C) $3x - 4y = -16$
 D) $3x - 4y = 16$

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

- A) $y = 4$ B) $-y = -2$
 C) $y = -2$ D) $y = 5$

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

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

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

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

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

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

14) Slope = -2, y-intercept = -3

A) $y = 3x - 3$

B) $y = -2x - 3$

C) $y = 3x + 3$

D) $y = -3x + 3$

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

15) through: (1, -1) and (0, -3)

A) $y = -2x - 3$

B) $y = 2x - 3$

C) $y = 4x + 2$

D) $y = -3x + 2$

16) through: (-3, -5) and (-5, -2)

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

B) $y = -\frac{3}{2}x - \frac{19}{2}$

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

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

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

17) through: (5, -4), parallel to $y = -\frac{9}{2}x - 1$

A) $37x + 2y = 9$

B) $9x + 2y = 37$

C) $37x - 2y = -9$

D) $37x + 2y = -9$

18) through: (-4, 1), parallel to $y = -\frac{2}{7}x$

A) $7x + y = 1$

B) $x - 7y = 1$

C) $7x - y = 1$

D) $2x + 7y = -1$

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

19) through: (3, -5), perp. to $y = \frac{3}{4}x + 1$

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

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

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

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

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

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

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

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

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

Assignment

Sketch the graph of each line and label the intercepts.

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

2) x -intercept = 3, y -intercept = -5

3) $-1 = x$

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

Sketch the graph of each linear inequality.

5) $8x - 3y \geq 15$

6) $y \geq 7x + 3$

Evaluate each function.

7) $h(x) = x - 2$; Find $h(x - 3)$

A) $x - 5$

B) $x + 2$

C) $-3 - x$

D) $-1 - x$

8) $f(n) = n^3 - \frac{3}{4}n^2$; Find $f(-1)$

A) $-\frac{7}{4}$

B) $-\frac{1}{27}$

C) $-\frac{5}{16}$

D) $\frac{25}{32}$

9) $h(x) = 3x + 3$; Find $h(8)$

A) 27

B) -12

C) 30

D) 6

10) $g(t) = -t + 1$; Find $g(3)$

A) 3

B) -4

C) 7

D) -2

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

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

A) $x - 5y = 25$

B) $2x + 5y = 25$

C) $x + 5y = 25$

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

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

A) $x + y = -1$

B) $3x + y = 1$

C) $x - 4y = 12$

D) $x + y = 1$

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

13) Slope = $-\frac{3}{4}$, y -intercept = 2

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

B) $y = \frac{1}{4}x + 2$

C) $y = 2x + \frac{1}{4}$

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

14) Slope = $\frac{5}{3}$, y -intercept = 0

A) $y = \frac{5}{3}x$

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

C) $y = 1$

D) $y = x$

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

15) through: (5, 3) and (-5, -4)

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

B) $y = \frac{3}{10}x - \frac{1}{2}$

C) $y = -\frac{3}{10}x - \frac{1}{2}$

D) $y = \frac{7}{10}x - \frac{1}{2}$

16) through: (0, -4) and (5, -2)

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

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

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

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

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

17) through: (-2, 4), parallel to $y = -\frac{9}{2}x - 2$

A) $2x - 3y = 10$

B) $9x + 2y = 10$

C) $9x + 2y = -10$

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

18) through: (1, -2), parallel to $y = -7x$

A) $7x - 5y = 1$

B) $7x + y = 5$

C) $7x - 5y = -1$

D) $7x - y = -5$

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

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

A) $y = -2x$

B) $y = -2$

C) $y = 3x$

D) $y = -3x$

20) through: (-4, 3), perp. to $y = -6x - 4$

A) $y = \frac{11}{3}x - \frac{1}{6}$

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

C) $y = -\frac{1}{6}x + \frac{11}{3}$

D) $y = \frac{1}{6}x + \frac{11}{3}$

Assignment

Sketch the graph of each line and label the intercepts.

1) $y = -6x + 2$

2) x -intercept = -5 , y -intercept = -2

3) $-3y = 9 - 8x$

4) $-3x = -18 + 9y$

Sketch the graph of each linear inequality.

5) $6x - 5y \geq -20$

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

Evaluate each function.

7) $f(x) = -x^2 + 3 + 2x$; Find $f(-2x)$

A) $-4x^2 + 3 - 4x$

B) $-x^2 + 3 - 2x$

C) $-x^4 + 3 + 2x^2$

D) $3 + x - \frac{1}{4}x^2$

8) $h(x) = \frac{5}{3}x + \frac{3}{2}$; Find $h\left(\frac{3}{10}\right)$

A) $\frac{51}{14}$

B) $-\frac{47}{42}$

C) $\frac{23}{6}$

D) 2

9) $f(n) = |-n - 2|$; Find $f(-10)$

A) 2

B) 3

C) 8

D) 7

10) $h(x) = -3|x + 2| + 1$; Find $h(-2)$

A) -26

B) -32

C) 1

D) -11

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

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

A) $2x + 5y = -20$

B) $x + 4y = -4$

C) $3x + 5y = -20$

D) $5x - 20y = 4$

12) Slope = 3, y -intercept = -3

A) $3x - y = 3$

B) $2x + y = -3$

C) $2x + y = 3$

D) $2x - y = 3$

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

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

- A) $y = 3x - 4$ B) $y = -2x - 4$
C) $y = -4x - 2$ D) $y = -3x - 4$

14) Slope = -1 , y-intercept = -4

- A) $y = -x - 4$ B) $y = 4x - 4$
C) $y = -4x - 4$ D) $y = 5x - 4$

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

15) through: $(4, -3)$ and $(0, -1)$

- A) $y = -\frac{1}{2}x - 1$ B) $y = -x + 2$
C) $y = 3x + 2$ D) $y = 2x - 1$

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

- A) $y = 2x - 23$
B) $y = -23x + 2$
C) $y = -23x - 7$
D) $y = -7x - 23$

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

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

- A) $20x + 4y = -5$ B) $5x + 4y = 4$
C) $20x - 4y = 5$ D) $5x - 4y = 20$

18) through: $(-5, -4)$, parallel to $y = -\frac{1}{5}x + 2$

- A) $x + 5y = 5$ B) $x - 5y = -25$
C) $x + 5y = -25$ D) $5x - y = 15$

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

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

- A) $y = -3x - 4$ B) $y = -x - 4$
C) $y = \frac{2}{5}x - 4$ D) $y = -\frac{2}{5}x - 4$

20) through: $(-3, -4)$, perp. to $y = -3x + 5$

- A) $y = \frac{1}{3}x - \frac{4}{3}$ B) $y = \frac{1}{3}x - 3$
C) $y = -\frac{4}{3}x + \frac{1}{3}$ D) $y = -3x + \frac{1}{3}$