

## Assignment

Sketch the graph of each line and label the intercepts.

1)  $y = x + 4$

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

3)  $6x = 1 + y$

4)  $5x = y + 2$

Sketch the graph of each linear inequality.

5)  $x - y \leq -4$

6)  $y \leq \frac{3}{4}x + 1$

Evaluate each function.

7)  $p(x) = -x + 1$ ; Find  $p(x + 4)$

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

8)  $f(n) = 5 + \frac{1}{3}n$ ; Find  $f(2)$

- A)  $\frac{131}{30}$           B)  $\frac{17}{3}$   
 C)  $\frac{65}{12}$           D)  $\frac{161}{30}$

9)  $h(x) = 2x - 4$ ; Find  $h(-3)$

- A)  $-8$           B)  $6$   
 C)  $8$             D)  $-10$

10)  $h(t) = |2t - 3|$ ; Find  $h(-9)$

- A)  $1$             B)  $9$   
 C)  $21$           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 = 0

- A)  $2x = 0$       B)  $5x = -2$   
 C)  $x = 0$         D)  $2x - 5y = 0$

12) Slope = 6,  $y$ -intercept = 1

- A)  $6x - y = -1$       B)  $x + y = -1$   
 C)  $x + y = 3$         D)  $x - y = 3$

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

13) Slope = 4, y-intercept = 0

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

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

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

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

15) through: (0, 1) and (-5, 0)

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

16) through: (1, 1) and (3, 5)

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

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

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

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

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

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

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

19) through: (-1, 1), perp. to  $y = x + 2$

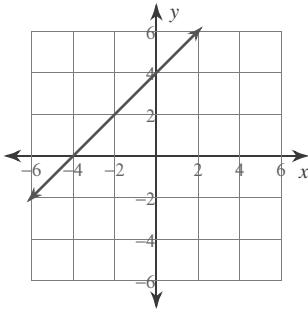
- A)  $y = 3x$       B)  $y = -x$   
C)  $y = -3x$       D)  $y = 3$

20) through: (4, 1), perp. to  $y = -5x - 3$

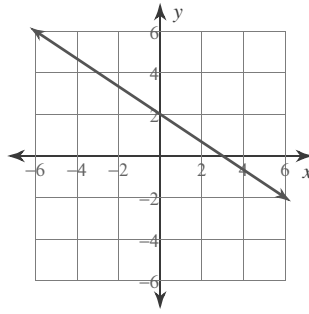
- A)  $y = -\frac{1}{5}x + \frac{1}{5}$       B)  $y = \frac{3}{5}x + \frac{1}{5}$   
C)  $y = -\frac{3}{5}x + \frac{1}{5}$       D)  $y = \frac{1}{5}x + \frac{1}{5}$

## Answers to Assignment (ID: 9)

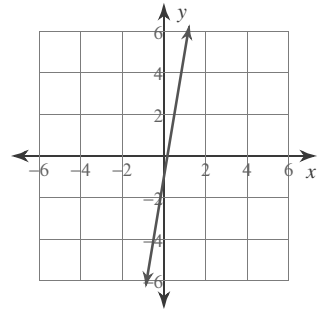
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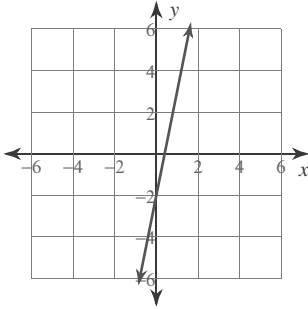
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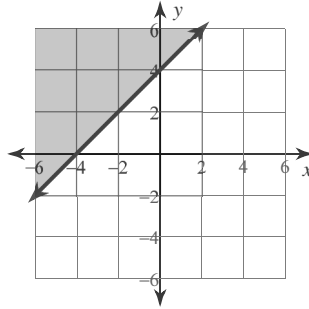
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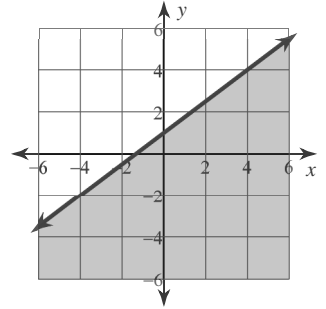
4)



5)



6)



7) B

11) D

15) D

19) B

8) B

12) A

16) A

20) D

9) D

13) C

17) B

10) C

14) B

18) B

## Assignment

Sketch the graph of each line and label the intercepts.

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

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

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

4)  $3x - 10 - 2y = 0$

Sketch the graph of each linear inequality.

5)  $4x - 5y > 20$

6)  $y < \frac{3}{4}x + 1$

Evaluate each function.

7)  $h(n) = n^3 - 3$ ; Find  $h(-4n)$

A)  $-n^3 - 3$

B)  $-64n^3 - 3$

C)  $8n^3 - 3$

D)  $24 + 27n + 9n^2 + n^3$

8)  $f(a) = a + 5$ ; Find  $f\left(\frac{1}{8}\right)$

A) 6                      B)  $\frac{23}{6}$

C)  $\frac{41}{8}$                       D)  $\frac{11}{3}$

9)  $w(n) = 2n + 3$ ; Find  $w(8)$

A)  $-11$                       B) 19

C) 1                              D)  $-1$

10)  $p(x) = 2x - 4$ ; Find  $p(-10)$

A)  $-24$                       B)  $-8$

C)  $-10$                       D) 2

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

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

A)  $6x - 3y = 5$

B)  $2x - 3y = 6$

C)  $4x + 3y = -15$

D)  $2x - 3y = 15$

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

A)  $x + 2y = -2$

B)  $x - 2y = 6$

C)  $x - 2y = -6$

D)  $x + 2y = -6$

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

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

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

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

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

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

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

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

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

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

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

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

15) through:  $(-2, -5)$  and  $(0, -4)$

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

B)  $y = -2x - 4$

C)  $y = -x - 4$

D)  $y = 2x - 4$

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

A)  $y = 3x + 1$

B)  $y = x + 3$

C)  $y = -2x + 3$

D)  $y = -3$

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

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

A)  $5x - 2y = 10$

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

C)  $5x + 2y = 10$

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

18) through:  $(3, 3)$ , parallel to  $y = -\frac{1}{3}x - 4$

A)  $x + 3y = -5$

B)  $x + 3y = 12$

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

D)  $3x - y = -12$

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

19) through:  $(-3, -5)$ , perp. to  $y = 5$

A)  $x = -3$

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

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

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

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

A)  $y = x$

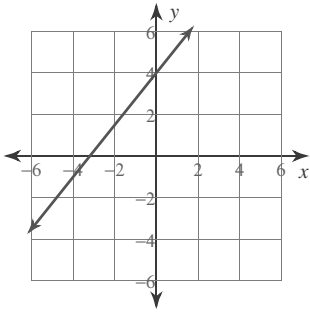
B)  $y = -x$

C)  $y = -3x$

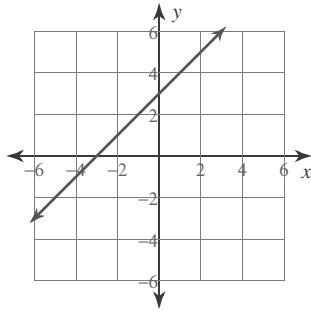
D)  $y = 3x$

# Answers to Assignment (ID: 10)

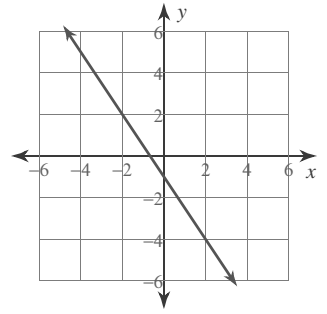
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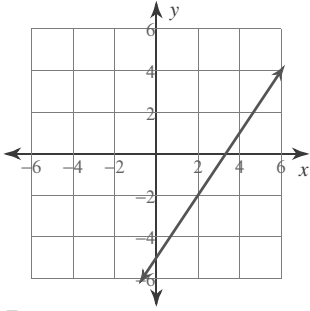
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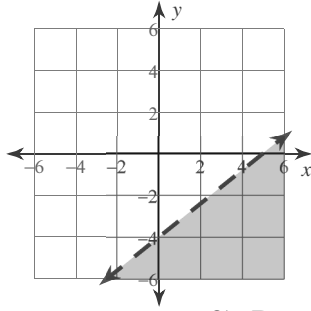
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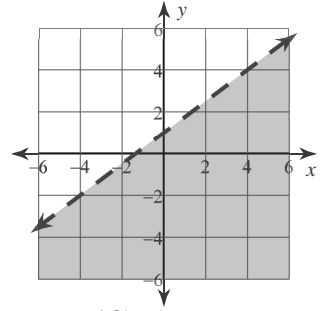
4)



5)



6)



- 7) B
- 11) C
- 15) A
- 19) A

- 8) C
- 12) A
- 16) D
- 20) B

- 9) B
- 13) B
- 17) D

- 10) A
- 14) D
- 18) B

## Assignment

Sketch the graph of each line and label the intercepts.

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

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

3)  $-5y = -8x - 20$

4)  $-x + 4 = 0$

Sketch the graph of each linear inequality.

5)  $x + 4y < 8$

6)  $y \geq 7x + 5$

Evaluate each function.

7)  $w(n) = 4n - 3$ ; Find  $w(x - 3)$

- A)  $4x - 15$       B)  $4x^2 - 3$   
 C)  $4x - 19$       D)  $12x - 3$

8)  $k(x) = x^3 + \frac{1}{2}x^2$ ; Find  $k\left(-\frac{1}{4}\right)$

- A)  $\frac{1}{64}$       B)  $10$   
 C)  $-\frac{1}{2}$       D)  $-\frac{650}{343}$

9)  $f(a) = 3a + 2$ ; Find  $f(3)$

- A)  $2$       B)  $29$   
 C)  $-19$       D)  $11$

10)  $f(t) = -4t$ ; Find  $f(-8)$

- A)  $28$       B)  $32$   
 C)  $40$       D)  $24$

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

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

- A)  $2x + 3y = 15$   
 B)  $15x - 3y = 5$   
 C)  $15x - 3y = -5$   
 D)  $5x - y = 2$

12) Slope =  $-\frac{5}{2}$ ,  $y$ -intercept =  $1$

- A)  $2x + 5y = 2$       B)  $5x + 2y = 2$   
 C)  $3x - 5y = 2$       D)  $3x + 5y = 2$

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

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

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

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

- A)  $y = 3x - 2$       B)  $y = -2x + 3$   
C)  $y = -5x - 2$       D)  $y = 5x - 2$

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

15) through: (4, 1) and (-5, 4)

- A)  $y = \frac{1}{3}x + \frac{7}{3}$   
B)  $y = -\frac{1}{3}x - \frac{1}{3}$   
C)  $y = \frac{7}{3}x - \frac{1}{3}$   
D)  $y = -\frac{1}{3}x + \frac{7}{3}$

16) through: (-3, -4) and (0, -4)

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

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

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

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

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

- A)  $5x - 2y = -8$       B)  $x + 2y = 8$   
C)  $x - y = -4$       D)  $5x + 2y = -8$

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

19) through: (5, -5), perp. to  $y = \frac{5}{9}x - 5$

- A)  $y = 5x + 4$       B)  $y = x + 4$   
C)  $y = -\frac{9}{5}x + 4$       D)  $y = -5x + 4$

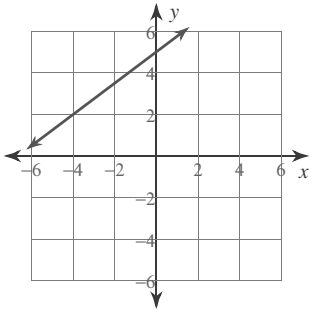
20) through: (-4, 5), perp. to  $y = 2x + 4$

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

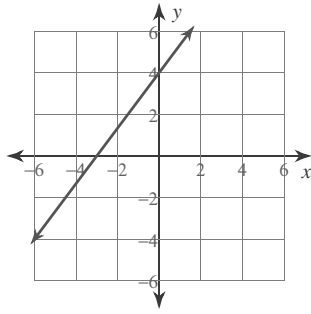


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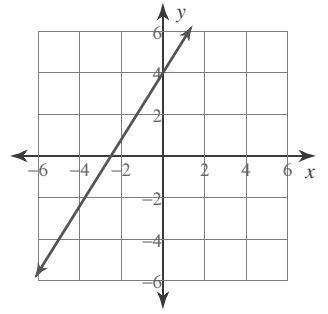
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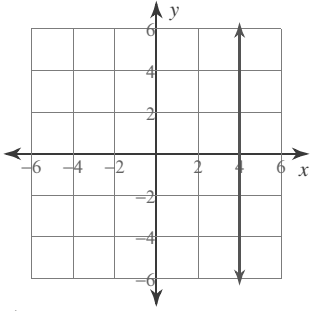
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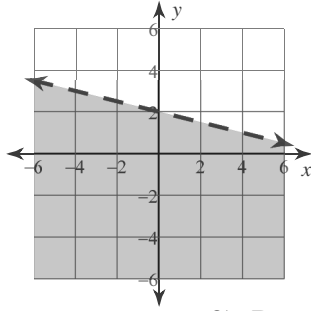
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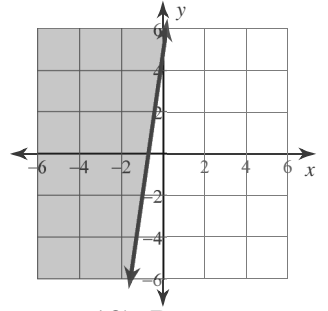
4)



5)



6)



- 7) A
- 11) A
- 15) D
- 19) C

- 8) A
- 12) B
- 16) B
- 20) C

- 9) D
- 13) B
- 17) B

- 10) B
- 14) B
- 18) B

## Assignment

Sketch the graph of each line and label the intercepts.

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

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

3)  $-x - 4 = 0$

4)  $2x = -5 + y$

Sketch the graph of each linear inequality.

5)  $x + y \leq 0$

6)  $y > -6x - 5$

Evaluate each function.

7)  $g(x) = 3x + 3$ ; Find  $g(-3x)$

- A)  $3x^2 + 3$       B)  $3 + \frac{3}{2}x$   
 C)  $-9x + 3$       D)  $3x$

8)  $f(x) = x - 1$ ; Find  $f\left(-\frac{9}{5}\right)$

- A)  $-\frac{14}{5}$       B)  $-\frac{7}{6}$   
 C)  $-\frac{4}{3}$       D)  $-\frac{7}{5}$

9)  $h(t) = |t| - 2$ ; Find  $h(-1)$

- A)  $2$       B)  $-1$   
 C)  $6$       D)  $7$

10)  $h(a) = -a + 1$ ; Find  $h(-2)$

- A)  $-3$       B)  $-1$   
 C)  $3$       D)  $-5$

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

11) Slope =  $1$ ,  $y$ -intercept =  $-1$

- A)  $x + y = 5$       B)  $x - y = 1$   
 C)  $x + y = -5$       D)  $x - y = -1$

12) Slope =  $-4$ ,  $y$ -intercept =  $0$

- A)  $x - 4y = 0$   
 B)  $4x + y = 0$   
 C)  $4x - y = -20$   
 D)  $20x - 4y = -1$

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

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

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

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

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

A)  $y = x + 4$

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

C)  $y = -3x + 4$

D)  $y = -x + 4$

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

15) through: (-3, -3) and (-1, 2)

A)  $y = \frac{5}{2}x + \frac{9}{2}$

B)  $y = -\frac{5}{2}x + \frac{9}{2}$

C)  $y = \frac{9}{2}x - \frac{5}{2}$

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

16) through: (-5, 5) and (1, -5)

A)  $y = -x - \frac{10}{3}$

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

C)  $y = -\frac{5}{3}x - \frac{10}{3}$

D)  $y = x - \frac{10}{3}$

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

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

A)  $x + 4y = 4$

B)  $x + 4y = -4$

C)  $4x - 4y = -1$

D)  $x + 4y = -20$

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

A)  $x + y = 5$

B)  $x - y = 4$

C)  $x + y = -4$

D)  $x - y = -4$

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

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

A)  $y = 5x + 6$

B)  $y = 6x + 5$

C)  $y = 4x + 6$

D)  $y = -2x + 6$

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

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

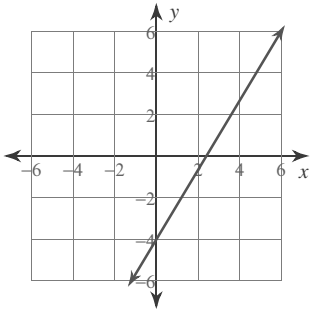
B)  $y = \frac{2}{3}x - 3$

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

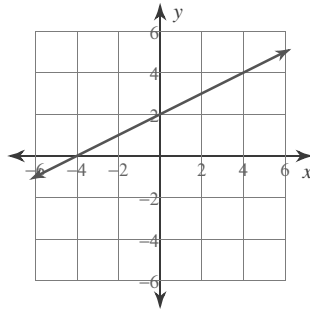
D)  $y = \frac{5}{3}x - 3$

# Answers to Assignment (ID: 12)

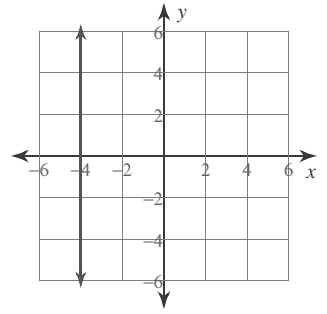
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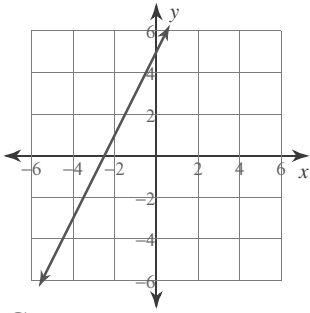
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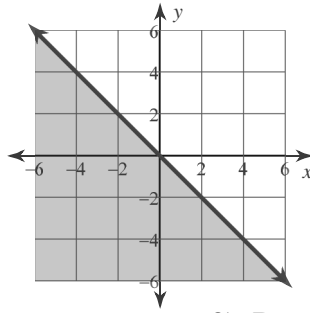
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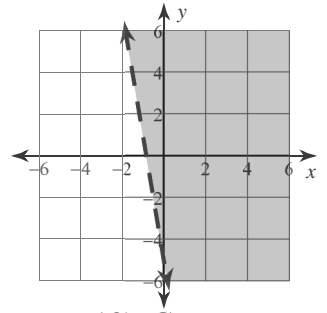
4)



5)



6)



- 7) C
- 11) B
- 15) A
- 19) D

- 8) A
- 12) B
- 16) C
- 20) D

- 9) B
- 13) C
- 17) D

- 10) C
- 14) B
- 18) D