

Assignment

Evaluate each using the values given.

1) $yx \div 4$; use $x = 4$, and $y = 4$

Simplify each expression.

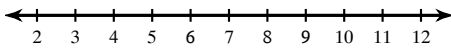
2) $6(-2 + 9x) - 4(2x - 6)$

Solve each equation.

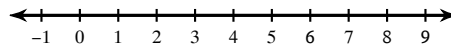
3) $-4x - 13 = -(2x + 8) + 7$

Solve each inequality and graph its solution.

4) $101 \geq 4(b + 6) + 7b$

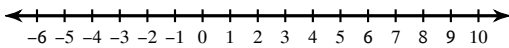


5) $140 \leq 4(6n + 5)$

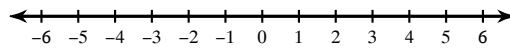


Solve each compound inequality and graph its solution.

6) $-8x \leq -40$ or $x - 9 \leq -12$

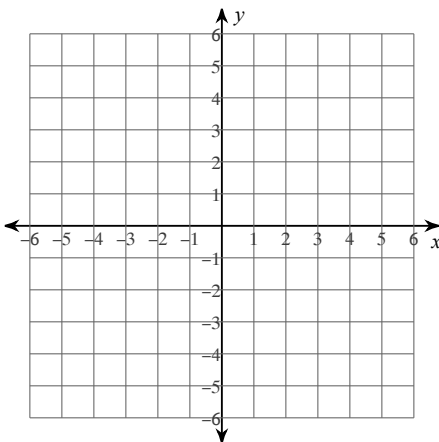


7) $-10 < n - 9 \leq -8$

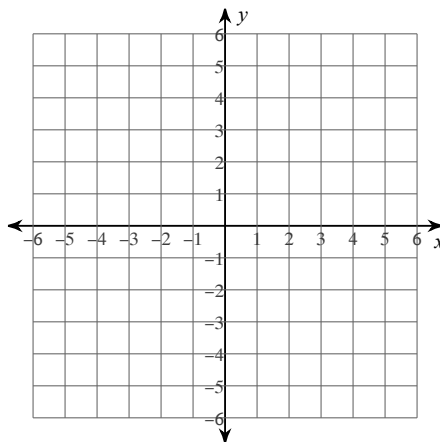


Sketch the graph of each line.

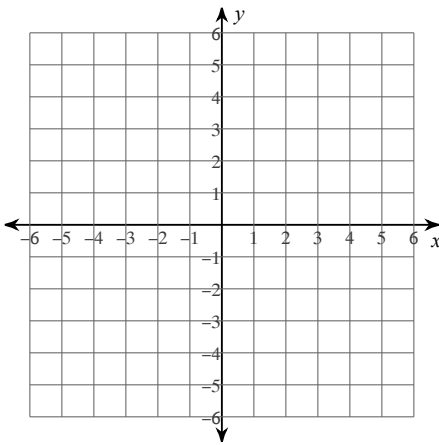
8) x -intercept = -2 , y -intercept = 3



9) $y = -x + 3$



10) $4x + 5y = 10$



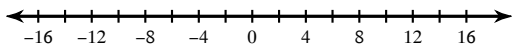
Solve each equation.

11) $\frac{|-10n + 4|}{4} = 4$

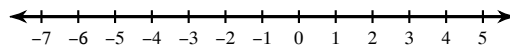
12) $1 + |6n + 4| = 21$

Solve each inequality and graph its solution.

13) $\left| \frac{n}{5} \right| \leq 3$

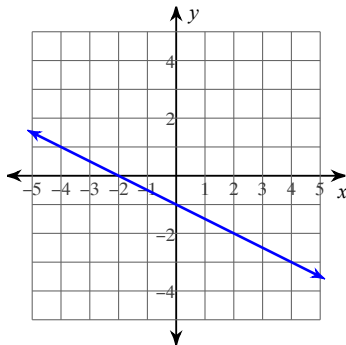


14) $|-3x| < 12$



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

15)



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

16) Slope = -3 , y-intercept = -1

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

17) $4x - 3y = 3$

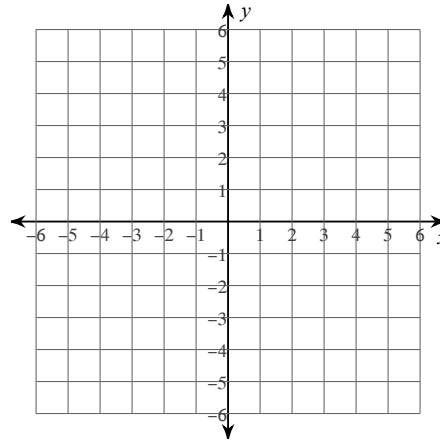
18) $y - 3 = -\frac{6}{5}(x + 1)$

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

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

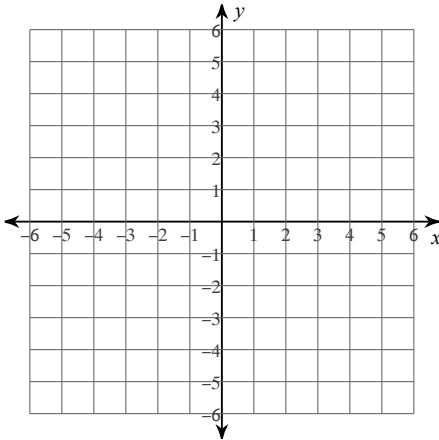
Graph each equation.

20) $y = |x + 3| - 1$



Sketch the graph of each linear inequality.

$$21) y \geq -\frac{1}{4}x + 3$$



Solve each system by graphing.

$$22) y = -\frac{5}{2}x + 2$$

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

Solve each system by elimination.

$$23) \begin{aligned} 7x + 3y &= 13 \\ -7x - 3y &= -13 \end{aligned}$$

Simplify. Write "undefined" for expressions that are undefined.

$$24) \begin{bmatrix} 5 & -5 \\ -5 & 3 \\ -1 & 4 \end{bmatrix} + \begin{bmatrix} 3 & 3 \\ -2 & -1 \\ 1 & 1 \end{bmatrix}$$

$$25) -3 \begin{bmatrix} -3 & -6 & -5 & -3 \end{bmatrix}$$

Factor each completely.

$$26) 3x^2 + 6x$$

$$27) 6p^2 - 18p + 12$$

$$28) 7n^2 + 39n - 70$$

$$29) 5n^2 + 48n - 20$$

$$30) 25n^2 + 40n + 16$$

$$31) 4k^2 - 12k + 9$$

Solve each equation by factoring.

32) $m^2 = -3m$

33) $k^2 - k = 0$

Factor each completely.

34) $30x^3 + 25x^2 + 48x + 40$

35) $2x^3 - 6x^2 - 7x + 21$

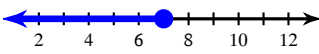
Answers to Assignment (ID: 1)

1) 4

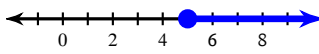
2) $12 + 46x$

3) $\{-6\}$

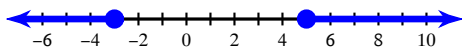
4) $b \leq 7$:



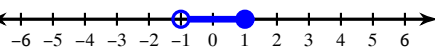
5) $n \geq 5$:



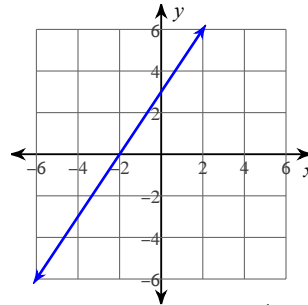
6) $x \geq 5$ or $x \leq -3$:



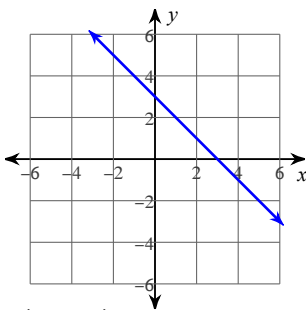
7) $-1 < n \leq 1$:



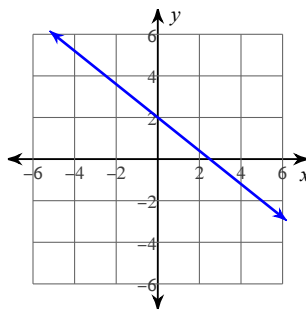
8)



9)



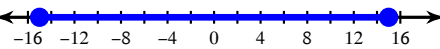
10)



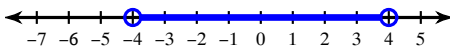
11) $\left\{-\frac{6}{5}, 2\right\}$

12) $\left\{\frac{8}{3}, -4\right\}$

13) $-15 \leq n \leq 15$:



14) $-4 < x < 4$:



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

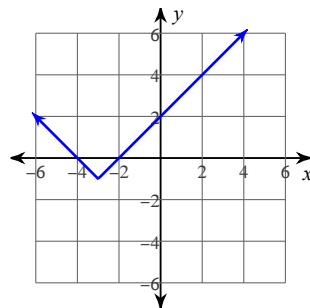
16) $y = -3x - 1$

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

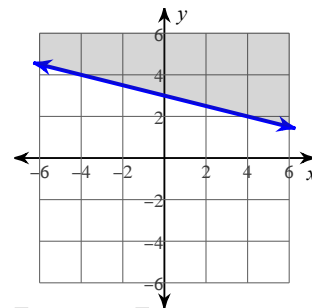
18) $y = -\frac{6}{5}x + \frac{9}{5}$

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

20)



21)



22) $(2, -3)$

23) Infinite number of solutions

24) $\begin{bmatrix} 8 & -2 \\ -7 & 2 \\ 0 & 5 \end{bmatrix}$

25) $\begin{bmatrix} 9 & 18 & 15 & 9 \end{bmatrix}$

26) $3x(x + 2)$

27) $6(p - 1)(p - 2)$

28) $(7n - 10)(n + 7)$

29) $(5n - 2)(n + 10)$

30) $(5n + 4)^2$

31) $(2k - 3)^2$

32) $\{-3, 0\}$

33) $\{1, 0\}$

34) $(5x^2 + 8)(6x + 5)$

35) $(2x^2 - 7)(x - 3)$