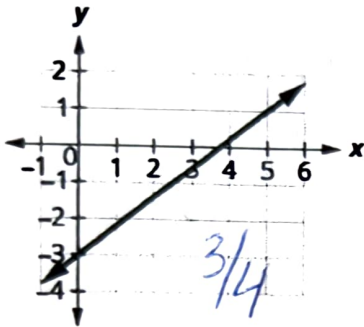
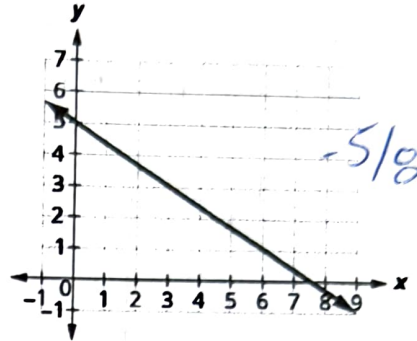


1.

Find the slope of the line shown.



Find the slope of the line shown.



2.

Find the slope of each line:

Ⓐ  $x = 8$     Ⓑ  $y = -5$ .

UNDEFINED  
OR  
NO SLOPE      SLOPE = 0

3.

Use the slope formula to find the slope of the line between the points (1, 2) and (4, 5).

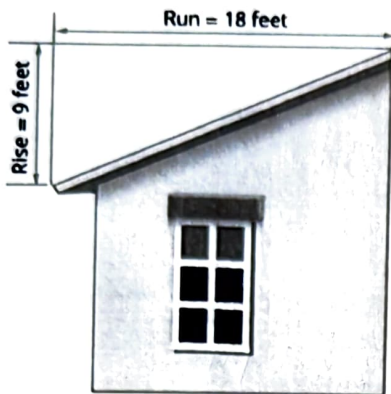
$$\frac{5-2}{4-1} = \frac{3}{3} = 1 \quad \text{or} \quad \frac{2-5}{1-4} = \frac{-3}{-3} = 1$$

Use the slope formula to find the slope of the line through the points (-2, -3) and (-7, 4).

$$\frac{-3-4}{-2-(-7)} = \frac{-7}{5}$$

5.

The 'pitch' of a building's roof is the slope of the roof. Knowing the pitch is important in climates where there is heavy snowfall. If the roof is too flat, the weight of the snow may cause it to collapse. What is the slope of the roof shown?



$$\frac{9}{18} = \frac{1}{2}$$

6.

Identify the slope and y-intercept of the line with equation  $y = -3x + 5$ .

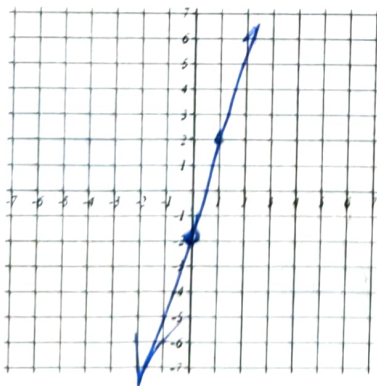
$$m = -3 \quad b = 5$$

Identify the slope and y-intercept of the line with equation  $x + 2y = 6$ .

$$\begin{array}{r} -x \qquad -x \\ \hline 2y = 6 - x \\ \frac{2y}{2} = \frac{6-x}{2} \\ y = 3 - \frac{1}{2}x \end{array}$$

7.

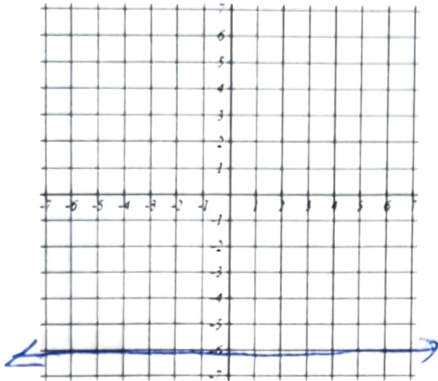
Graph the line of the equation  $y = 4x - 2$  using its slope and y-intercept.



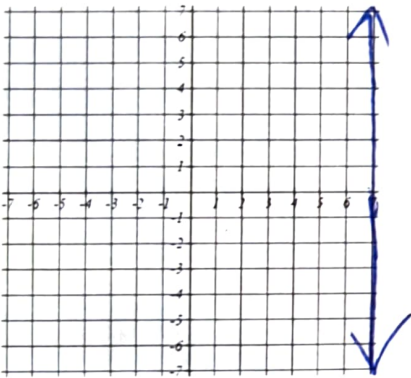
$$m = \frac{4}{1} \quad b = -2$$

8. GRAPH

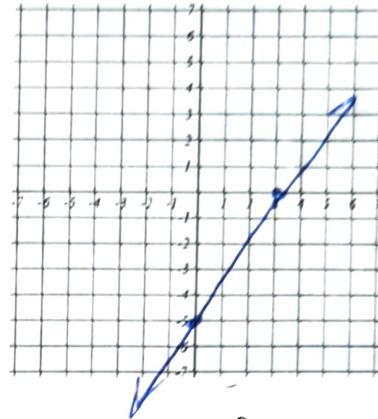
a)  $y = -6$



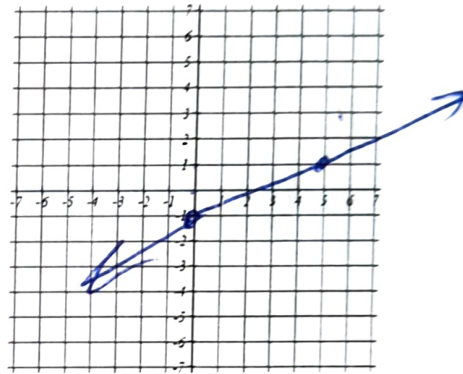
c)  $x = 7$



b)  $5x - 3y = 15$



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



Correct up  
 $x\text{-int} = 3$   
 $y\text{-int} = -5$   

$$\begin{array}{r} 5x - 3y = 15 \\ -5x \qquad -5y \\ \hline -3y = 15 - 5x \\ -3 \quad -3 \quad -3 \\ \hline y = -5 + \frac{5}{3}x \end{array}$$

9.

Stella has a home business selling gourmet pizzas. The equation  $C = 4p + 25$  models the relation between her weekly cost,  $C$ , in dollars and the number of pizzas,  $p$ , that she sells.

(a) Find Stella's cost for a week when she sells no pizzas.

$\$25$

(b) Find the cost for a week when she sells 15 pizzas.

$4(15) + 25 = 85$

(c) Interpret the slope and C-intercept of the equation.

\* Make \$4 per pizza sold

\* She sells 0 pizzas ~~###~~  
 her cost will be \$25

10.

Use slopes to determine if the lines  $3x - 2y = 6$  and  $y = \frac{3}{2}x + 1$  are parallel.

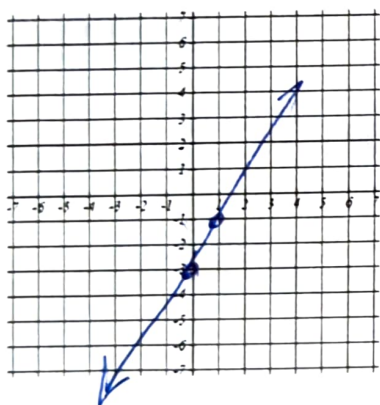
$$m = -\frac{3}{-2} = \frac{3}{2} \quad m = \frac{3}{2} \quad \text{parallel}$$

Use slopes to determine if the lines  $y = -4$  and  $y = 3$  are parallel.

$$\text{parallel} \\ m = 0$$

11.

Use slopes and y-intercepts to determine if the lines  $y = 2x - 3$  and  $-6x + 3y = -9$  are parallel. You may want to graph these lines, too, to see what they look like.



Same line  
Not Parallel

$$\begin{array}{r} -6x + 3y = -9 \\ +6x \qquad \qquad +6x \\ \hline 3y = -9 + 6x \\ \frac{3y}{3} = \frac{-9}{3} + \frac{6x}{3} \\ y = -3 + 2x \end{array}$$

12.

Use slopes to determine if the lines,  $y = -5x - 4$  and  $x - 5y = 5$  are perpendicular.

$$m = -5 \quad m = -\frac{1}{-5} \quad \perp$$

Use slopes to determine if the lines,  $7x + 2y = 3$  and  $2x + 7y = 5$  are perpendicular.

$$m = -\frac{7}{2} \quad m = -\frac{2}{7} \quad \text{Not } \perp$$

13.

Determine whether each ordered pair is a solution to the inequality  $y > x + 4$ :

- Ⓐ (0, 0)   Ⓑ (1, 6)   Ⓒ (2, 6)   Ⓓ (-5, -15)   Ⓔ (-8, 12)

$0 > 0 + 4$   
F

$6 > 1 + 4$   
T

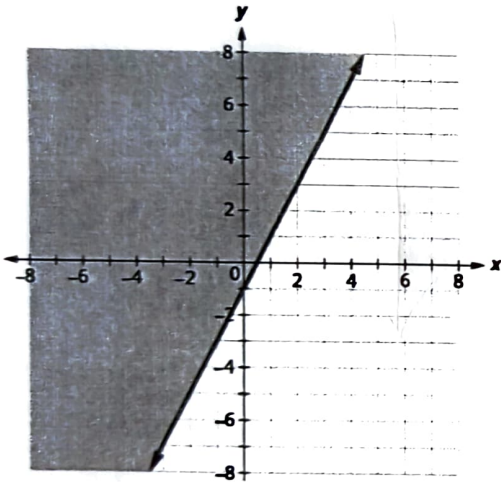
$6 > 2 + 4$   
F

$-15 > -5 + 4$   
F

$12 > -8 + 4$   
T

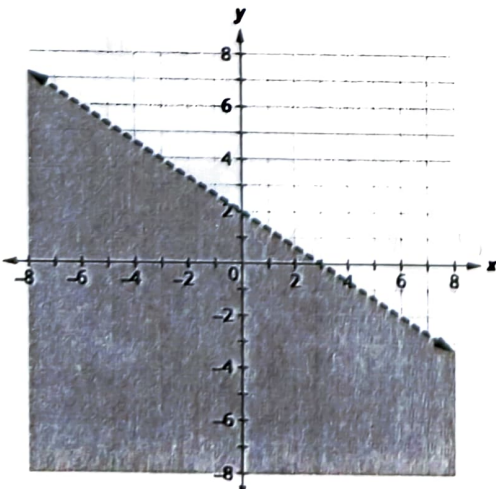
14.

The boundary line shown is  $y = 2x - 1$ . Write the inequality shown by the graph.



~~$y = 2x - 1$~~   
 $y < 2x - 1$

The boundary line shown is  $2x + 3y = 6$ . Write the inequality shown by the graph.



$2x + 3y = 6$   
 $-2x \quad -2x$   

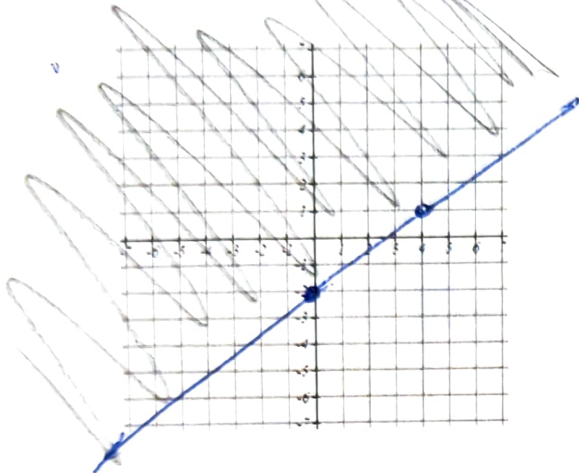
---

 $3y = 6 - 2x$   
 $3 \quad 3 \quad 3$   
 $y = 2 - \frac{2}{3}x$   
 $y < 2 - \frac{2}{3}x$

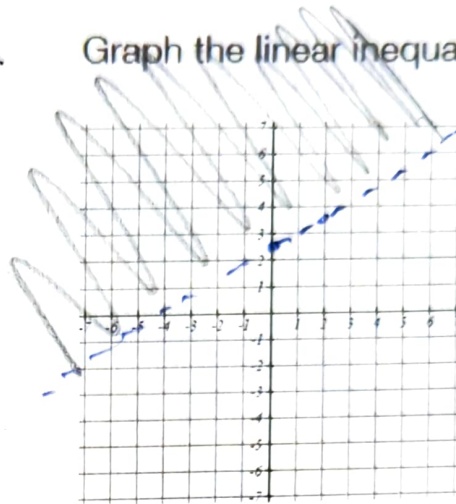


15.

Graph the linear inequality  $y \geq \frac{3}{4}x - 2$ .

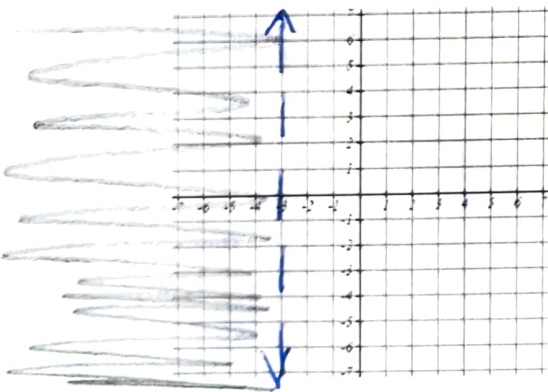


Graph the linear inequality  $x - 2y < 5$ .



$$\begin{aligned} x - 2y &< 5 \\ -x &\quad -y \\ \hline -2y &< 5 - x \\ \frac{-2y}{-2} &\quad \frac{5-x}{-2} \\ y &> 2.5 + \frac{1}{2}x \end{aligned}$$

Graph the linear inequality  $x < -3$ .



Graph the linear inequality  $y > 3$ .

