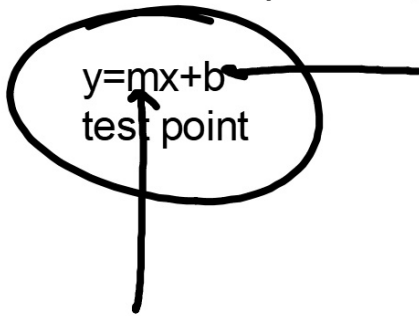
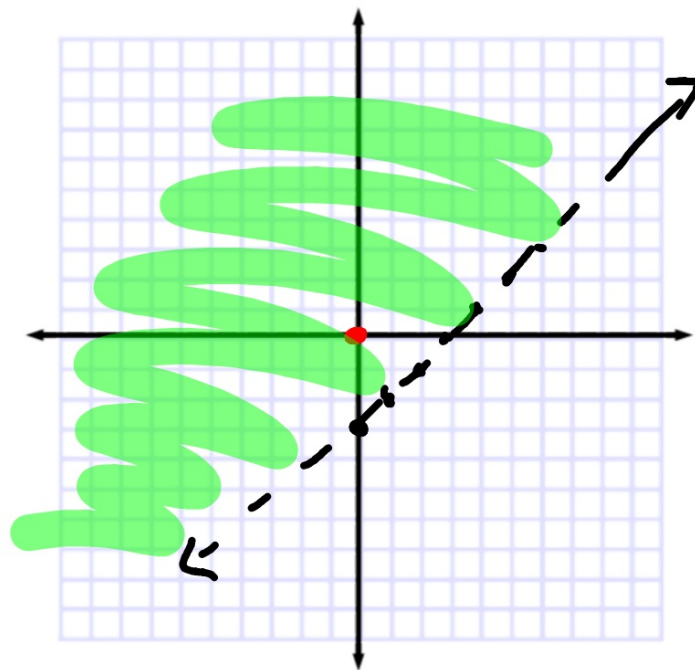


Algebra 1            5.6  
Graph linear inequalities  
Solve inequalities (related equations)



45.  $y > x - 3$   
 $0 > 0 - 3$   
 $0 > -3$   
 $y = \frac{1}{1}x - 3$



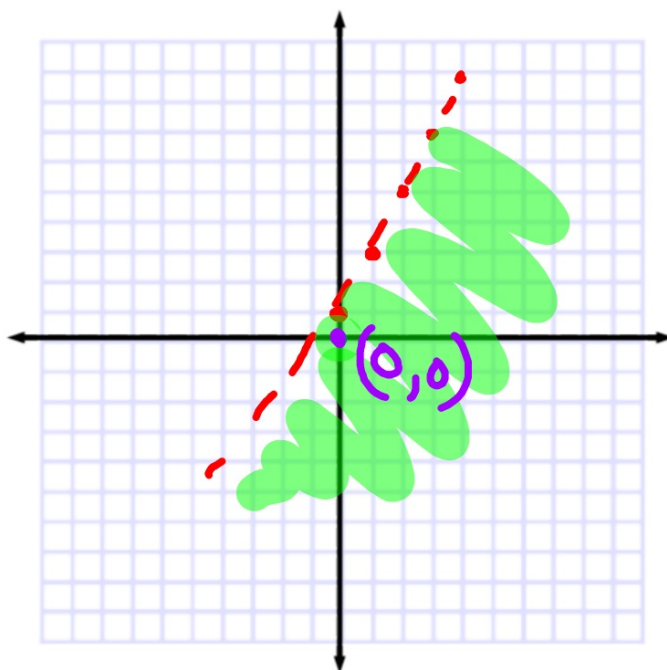
46.  $y < 2x + 1$

$0 < 2 \cdot 0 + 1$

$0 < 1$

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

$y = mx + b$



### Example 6

Graph  $2x - y > 3$ .

$$2 \cdot 0 - 0 > 3$$

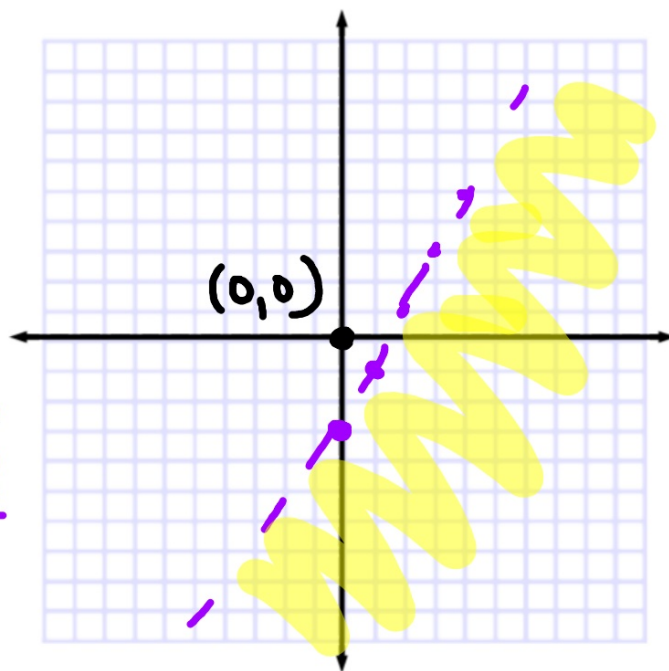
$$0 - 0 > ?$$

$$2x - y = 3$$

$$-2x \quad -2x$$

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

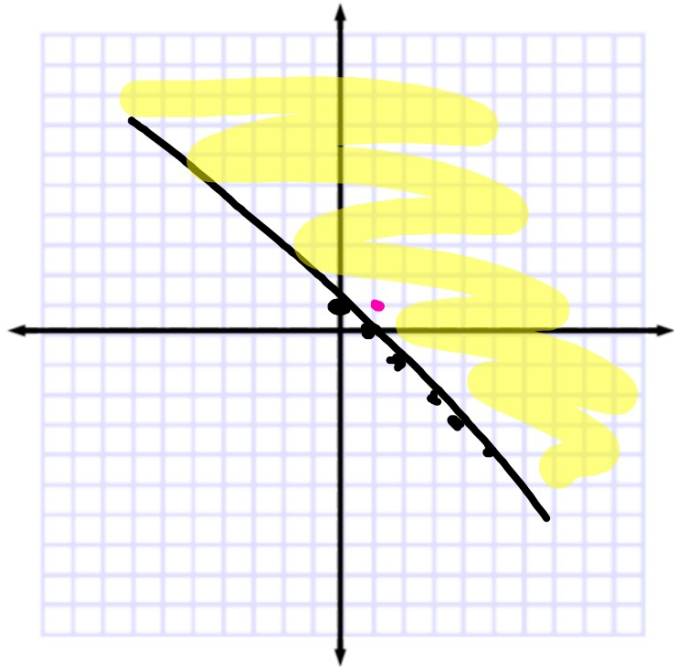
$$y = 2x - 3$$



$$1 + 1 \geq 1$$

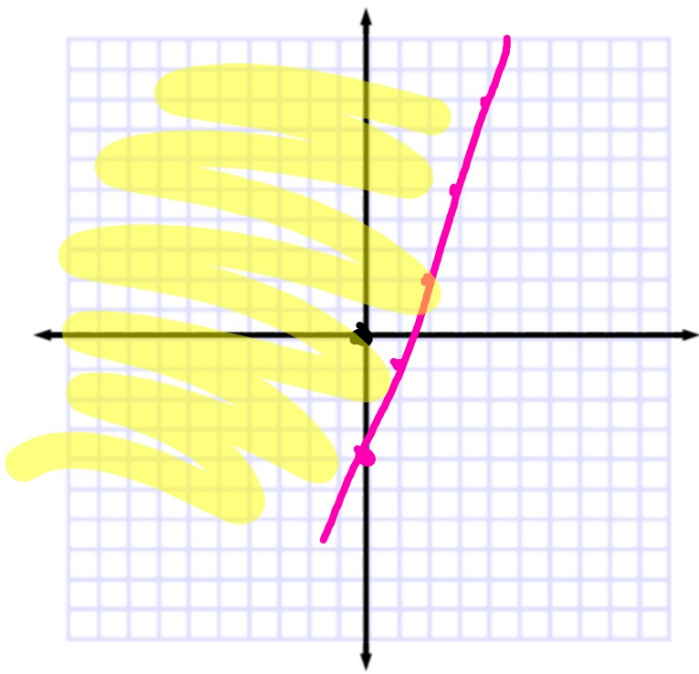
50.  $x + y \geq 1$

$$\begin{array}{r} x + y = 1 \\ -x \quad -x \\ \hline y = -1x + 1 \end{array}$$



47.  $3x - y \leq 4$

$$\begin{array}{r} 3x - y \leq 4 \\ 3x - y - 4 \leq 0 \\ -y \leq -3x + 4 \\ y \geq 3x - 4 \end{array}$$



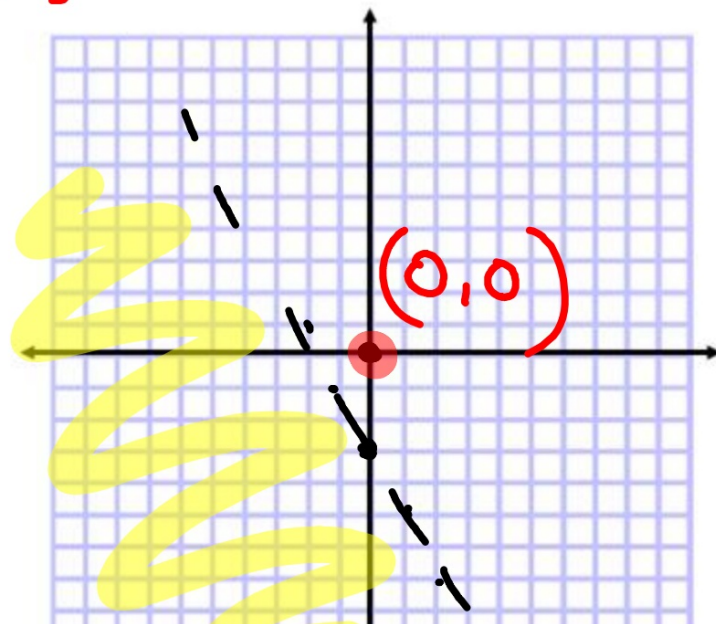
$$19. \begin{array}{r} 2x + y < -3 \\ -2x \quad \quad -2x \end{array}$$

$$y = -2x - 3$$

$$0 < -2 \cdot 0 - 3$$

$$0 < -3$$

$$0 > -3$$



Solve related equations: Where is it higher >  
(or lower?<)

~~Use a graph~~ to solve each inequality.

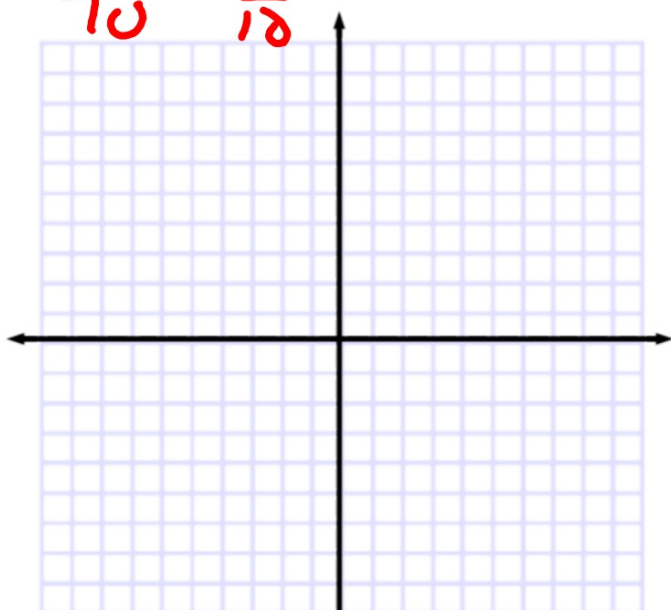
24.  $10x - 8 < 22$

25.  $20x - 5 > 35$

26.  $4y - 77 \geq 23$

+8 +8

$\frac{10x}{10} < \frac{30}{10}$





~~Use a graph to solve each inequality.~~

31.  $3x + 2 < 0$

<

32.  $4x - 1 > 3$

33.  $-6x - 8 \geq -4$

40.  $2x - 3y \leq 1$

$2 \cdot 0 - 3 \cdot 0 \leq 1$

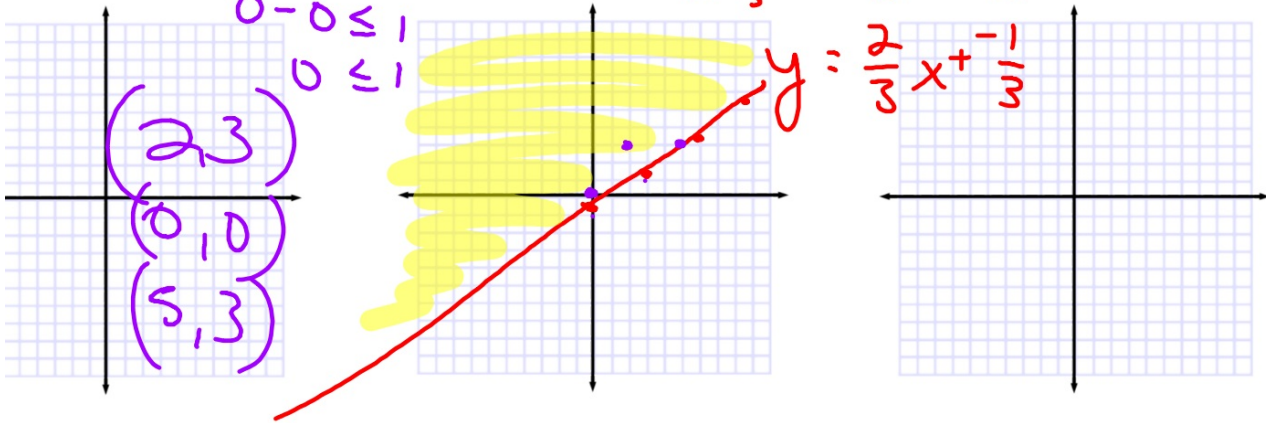
$0 - 0 \leq 1$

$0 \leq 1$

$2x - 3y = 1$

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

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



WB 5.6 pr.

$$\begin{aligned} x &< -4 \\ | &< -4 \end{aligned}$$

$$(-s, -s)$$

