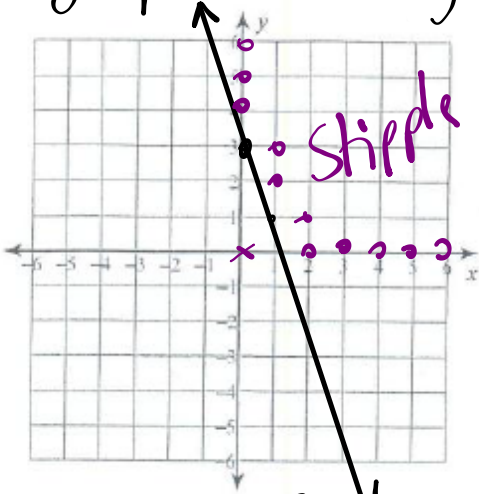


Warm Up... Graph each of the following:

$$\begin{array}{c|c|c} \text{LS} & \neq & \text{RS} \\ \hline 0 & -2(0)+3 & \\ \hline \neq & 3 & \text{NO} \end{array}$$

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

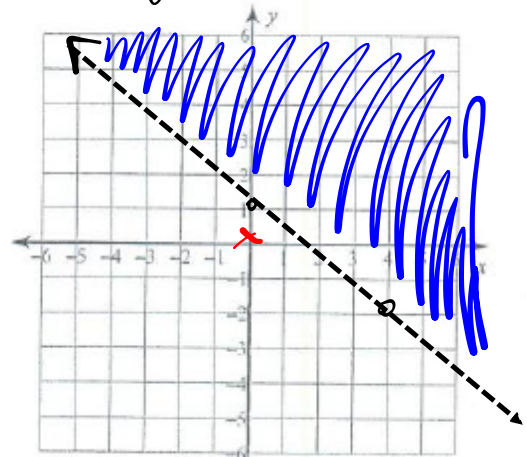


$y = -2x + 3$

$x \in W$   
 $y \in W$  } Q1  
 ↑  
 Stippled  
 (dots)

$$\begin{array}{c|c|c} \text{LS} & > & \text{RS} \\ \hline 3(0)+4(0) & & 4 \\ \hline 0 & & > \end{array}$$

2)  $3x + 4y > 4$



$$3x + 4y = 4$$

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

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

p. 221 Hw???

6a, c, b Shipped  
Q1

6a)  $\{(x,y) \mid 2x - y \geq 5y + 2x + 12, x \leq 0, y \leq 0\}$

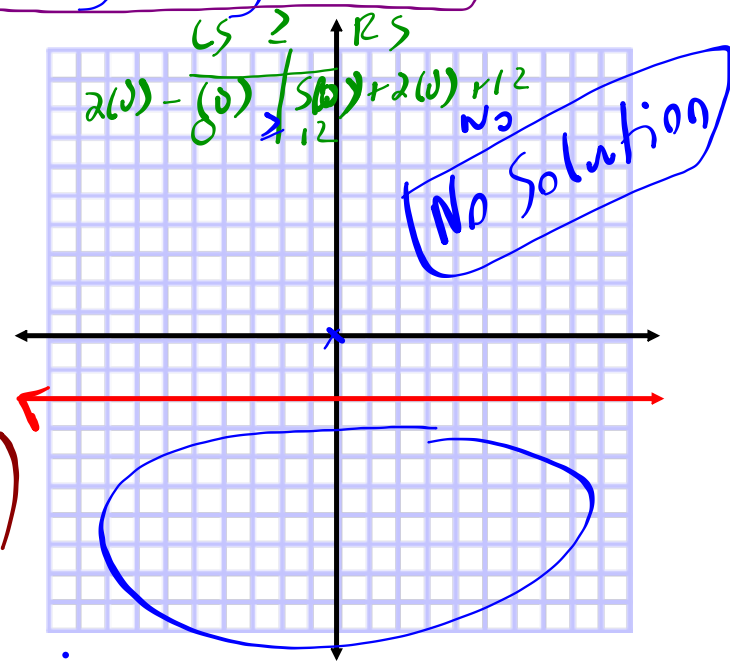
Points

$$2x - y = 5y + 2x + 12$$

$$-y - 5y = 2x - 2x + 12$$

$$-6y = 12$$

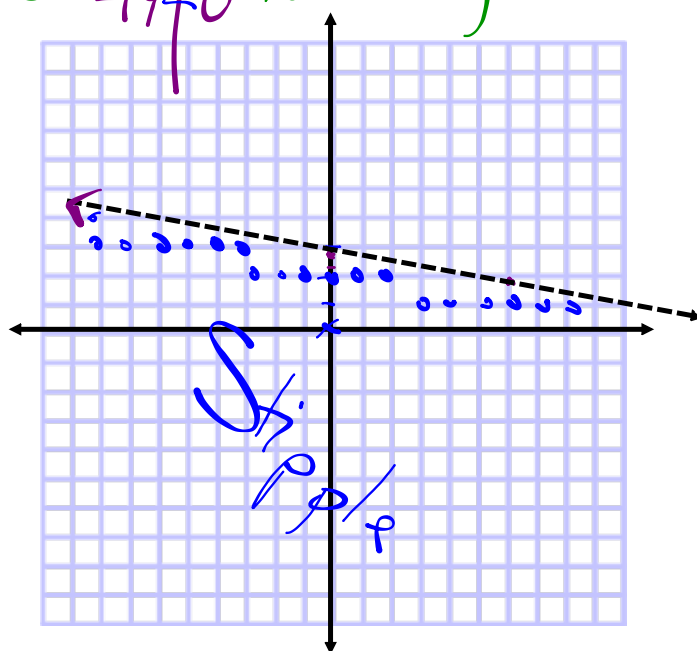
$$y = -2 \text{ (horizontal)}$$



b)  $x + 6y - 14 < 0$   $LS < RS$   
 $\frac{-14}{-6} < 0$   $x \in I$   $y \in I$

$$\frac{6y}{6} = \frac{-x}{6} + \frac{14}{6}$$

$$y = \frac{-x}{6} + 2.\bar{6}$$



b.c)

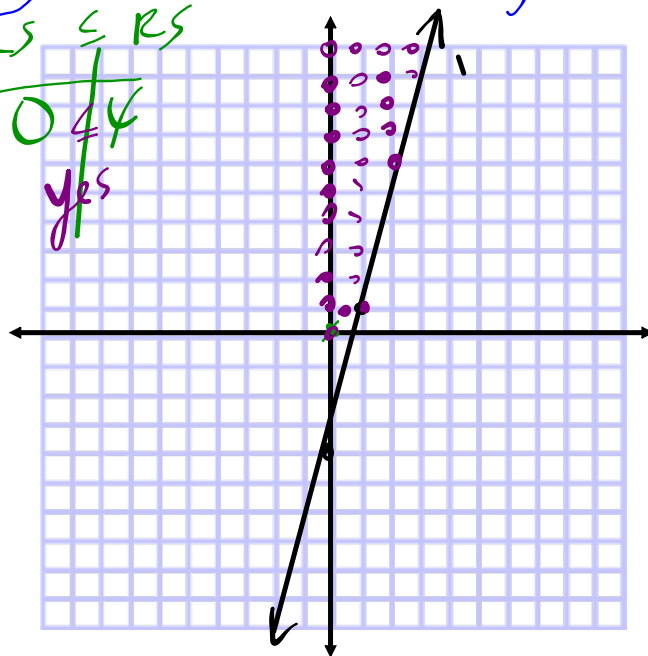
$$5x - y = 4$$

$$\begin{array}{r} -y = -5x + 4 \\ \hline -1 \quad -1 \quad =1 \\ \hline y = 5x - 4 \end{array}$$

$$5x - y \leq 4$$

$$\begin{array}{r} 5x \leq 4 - y \\ \hline 0 \leq 4 \\ \hline \text{yes} \end{array}$$

$x \in \mathbb{W}$     $y \in \mathbb{W}$



# HOMEWORK... Worksheet - Graphing Inequations with 2 variables.pdf

$$1) y \leq -\frac{8}{3}x - 3$$

$$2) y > -\frac{2}{5}x - 4 \quad x \in \mathbb{R} \quad y \in \mathbb{R}$$

$$3) y < -\frac{3}{4}x - 2 \quad x \in \mathbb{I} \quad y \in \mathbb{I}$$

$$4) x \geq 4 \quad x \in \mathbb{W} \quad y \in \mathbb{W}$$

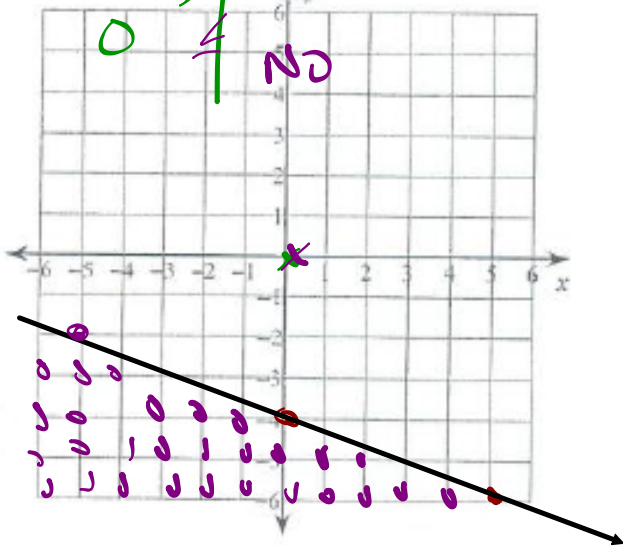
$$5) y < 5x + 1 \quad x \in \mathbb{I} \quad y \in \mathbb{I}$$

$$6) y \geq -2x + 3 \quad x \in \mathbb{W} \quad y \in \mathbb{W}$$

$$7) 2x + 5y \leq -20 \quad x \in \mathbb{I} \quad y \in \mathbb{I}$$

$$8) 3x + 4y > 4$$

$LS \leq RS \quad x \in I$   
 $7) 2x + 5y \leq -20 \quad y \in I$   
 $2(0) + 5(0) \mid -20$   
 $0 \leq -20$  NO



$$2x + 5y \leq -20$$

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

$$5y = -\frac{2x}{5} - \frac{20}{5}$$

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

## Attachments

---

Worksheet - Graphing Inequations with 2 variables.pdf