Linear Inequalities

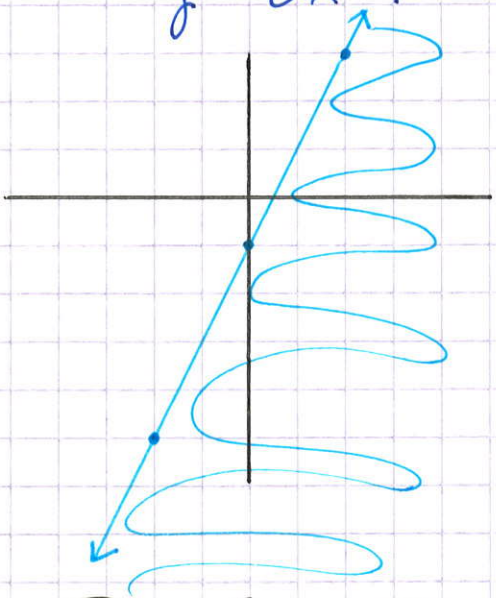
p. 416 example A

Mrs. Gross

$$-4x - 2y \geq 2$$
$$+4x \quad\quad +4x$$

$$\frac{-2y}{-2} \geq \frac{4x+2}{-2}$$

$$y \leq 2x - 1$$



- Change the inequality to "y-intercept" form
- *Remember - when you divide by a negative... flip the sign!
- Make your chart

x	$y \leq 2x-1$	y
-2	$y \leq 2 \cdot -2 - 1$	-5
0	"	-1
2	$y \leq 2 \cdot 2 - 1$	3

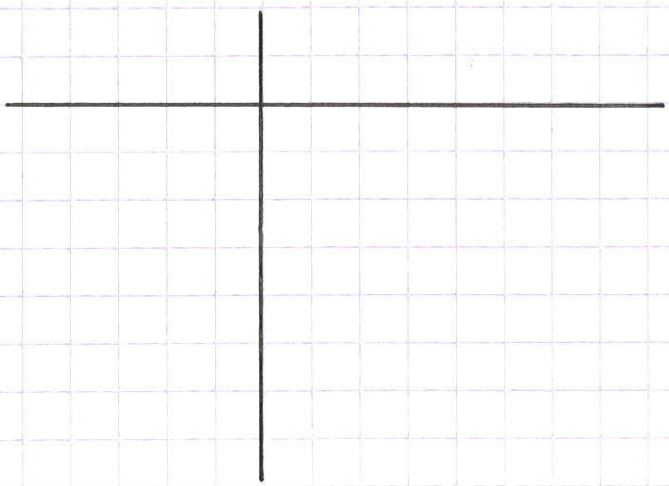
- Make your graph
- Because this is an inequality, consider the sign $\leq$ (less than shades below the line)

your turn "

$$-4x - 2y \leq 6$$

Chart: (Don't forget to flip the sign)

x	$y \geq$	y
-2		
0		
2		



Things to think about!

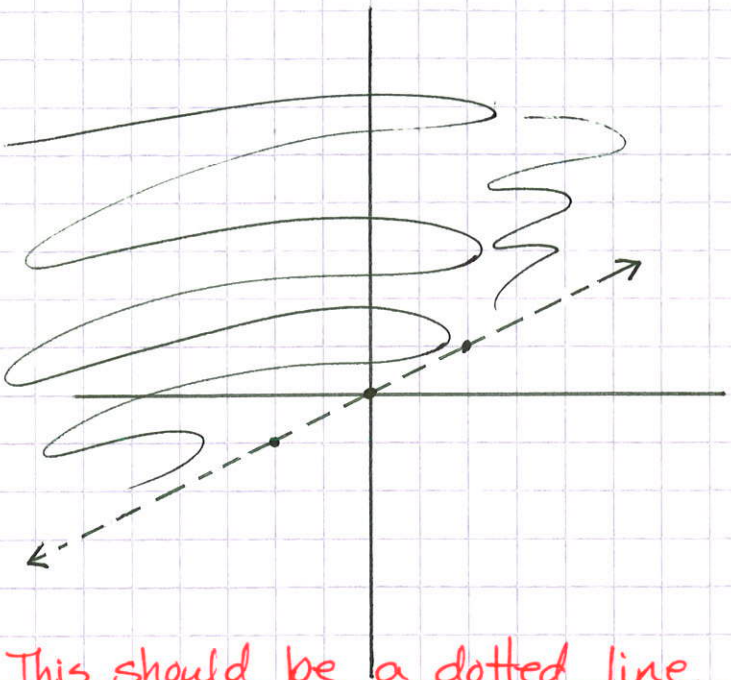
$-x + 2y > 0$

$+x \qquad +x$

$\frac{2y}{2} > \frac{x}{2}$

$y > \frac{1}{2}x$

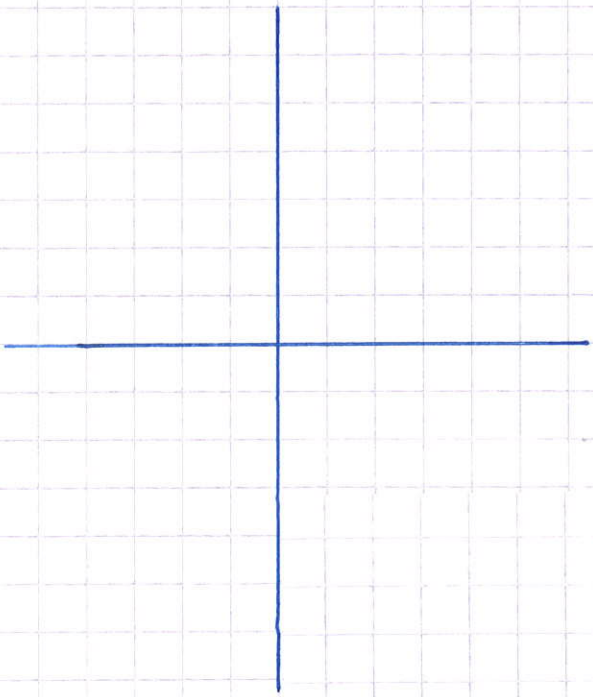
x	$y > \frac{1}{2}x$	y
-2	$y > \frac{1}{2} \cdot -2$	-1
0	$\cup$	0
2	$y > \frac{1}{2} \cdot 2$	1



* This should be a dotted line because of the inequality!

Your turn:

$-2x + 4y > 12$



x	$y >$	y