

Oct 30/09

LINEAR INEQUALITIES

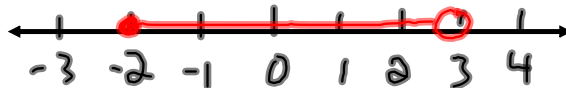
$$x \leq 3$$



$$x = (5, \infty)$$



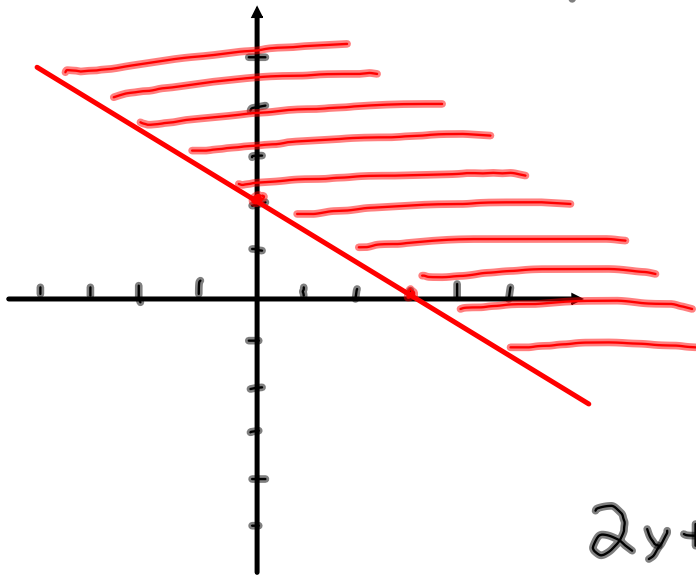
$$x = [-2, 3)$$



$$< \text{ or } > \quad \circ$$

$$\leq \text{ or } \geq \quad \bullet$$

GRAPH $2x + 3y \geq 6$



x	y
0	2
3	0

TEST POINT
(0,0)

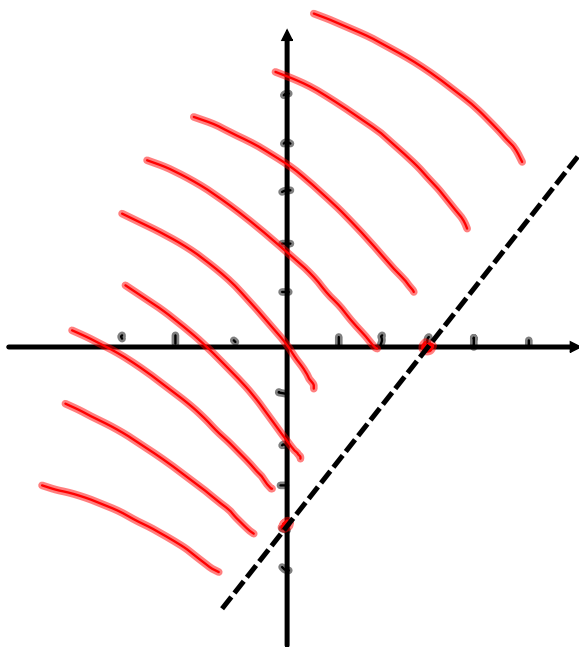
$$2y + 3x \geq 6$$
$$2(0) + 3(0) \geq 6$$

< OR > -----

$$0 \geq 6 \quad \text{FALSE}$$

\leq OR \geq _____

GRAPH $-3y + 4x < 12$



x	y
0	-4
3	0

TEST PT (0,0)

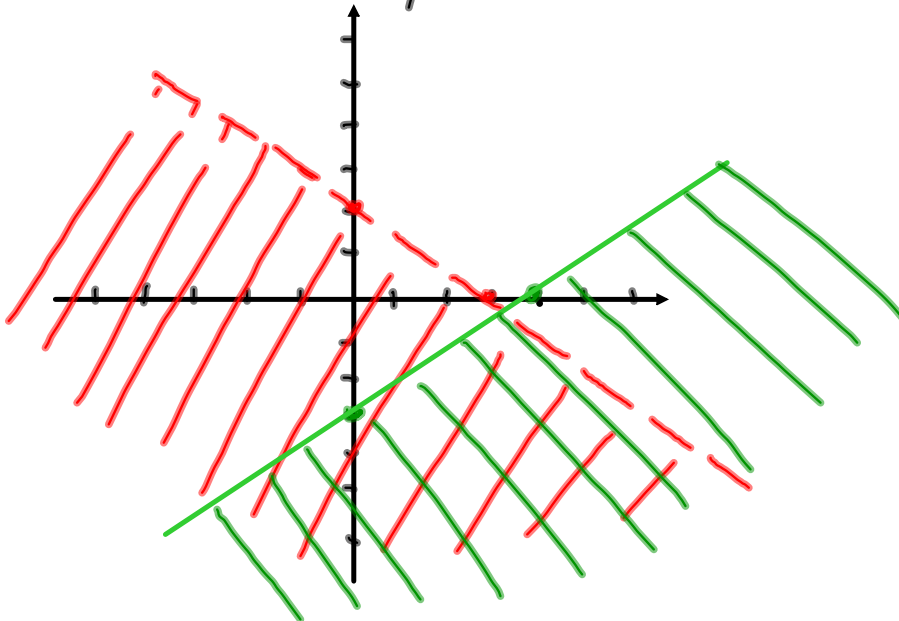
$$-3y + 4x < 12$$
$$-3(0) + 4(0) < 12$$

TRUE $0 < 12$

SYSTEMS OF INEQUALITIES

① $2x + 3y < 6$

② $3x - 4y \geq 12$

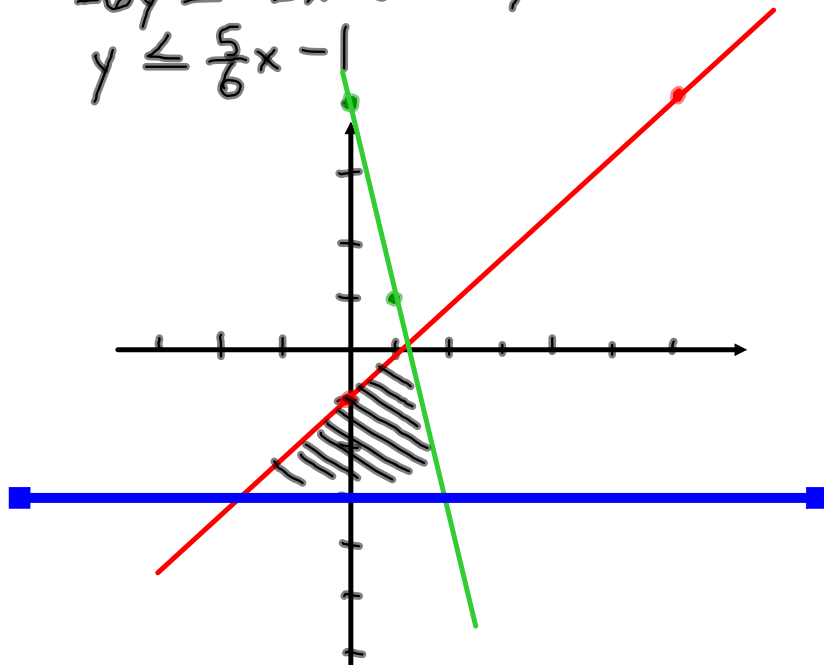


GRAPH AND SOLVE

① $5x - 6y \geq 6$ ② $3x + y \leq 4$ ③ $y \geq -3$

$-6y \geq -5x + 6$ $y \leq -3x + 4$

$y \leq \frac{5}{6}x - 1$



Ex #27 Q# 1-11, 13-15