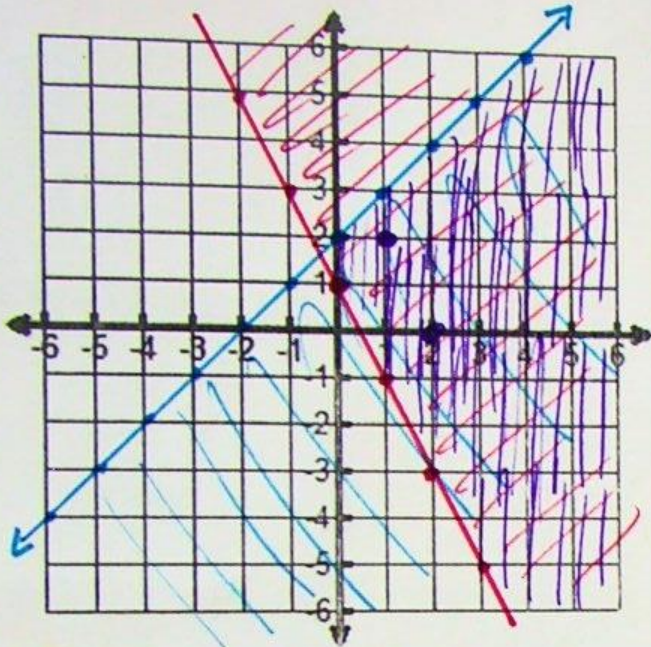


Notes: [4-5] Systems of Linear Inequalities in Two Variables

1) $\begin{cases} y \geq -2x + 1 \\ y \leq x + 2 \end{cases}$

Name three possible solutions: $(2,0)$ $(3,0)$ $(1,2)$

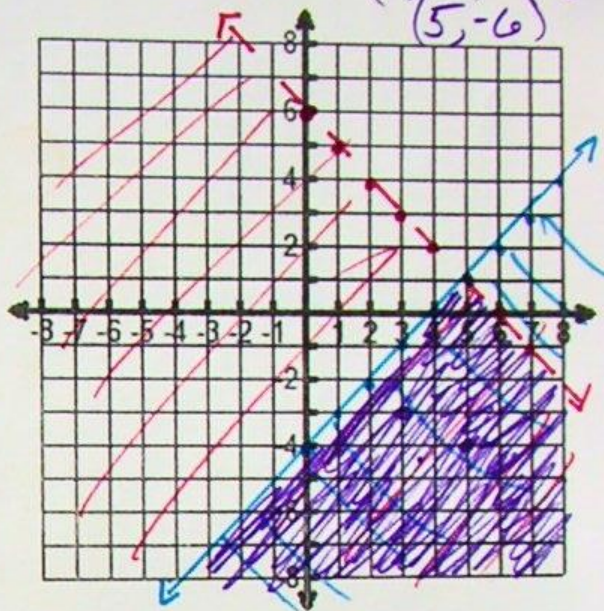


2) $\begin{cases} x + y < 6 \\ x - y \geq 4 \end{cases}$

Name three possible solutions:

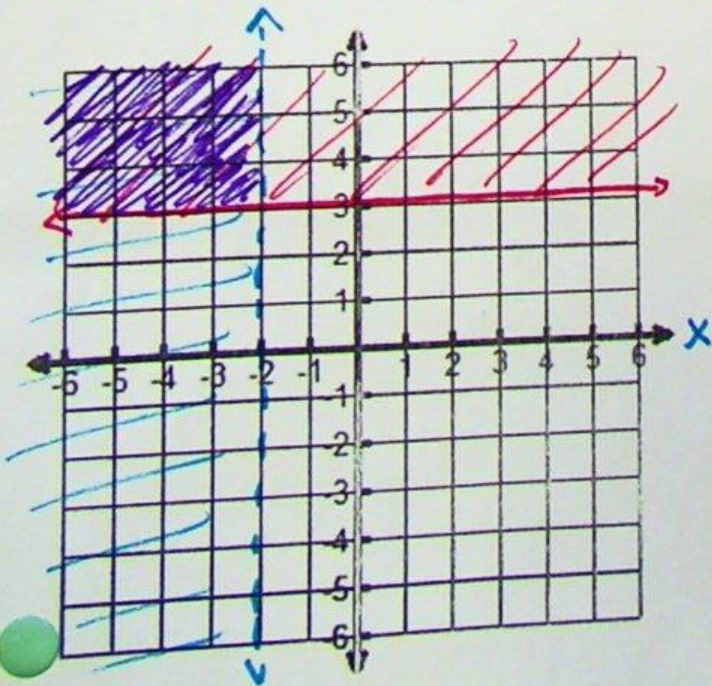
$y < -x + 6$
 $-y \geq -x + 4$
 $y \leq x - 4$

$(5, -4)$ $(3, -3)$
 $(5, -6)$



3) $\begin{cases} y \geq 3 \\ x < -2 \end{cases}$

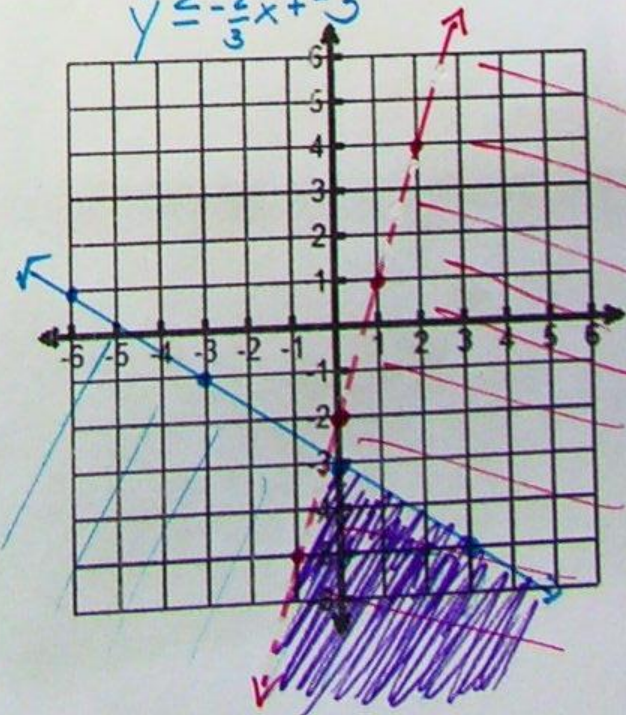
horizontal
 ← vertical



4) $\begin{cases} 3x - y > 2 \\ 2x + 3y \leq -9 \end{cases}$

$-y > -3x + 2$
 $y < 3x - 2$

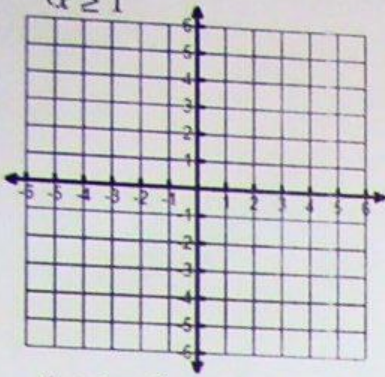
$3y \leq -2x - 9$
 $y \leq -\frac{2}{3}x - 3$



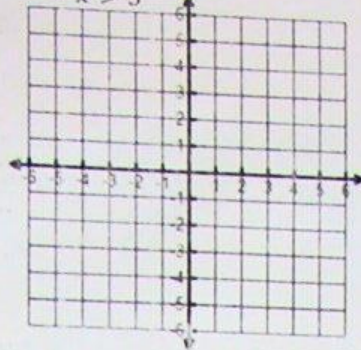
Assignment: [4-5] Systems of Linear Inequalities in Two Variables

Name: _____

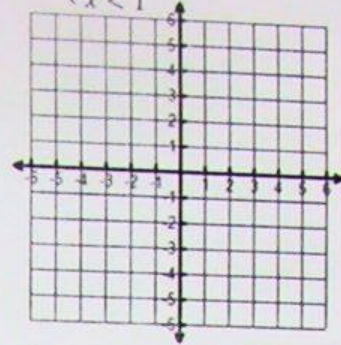
1) $\begin{cases} y \leq 5 \\ x \geq 1 \end{cases}$



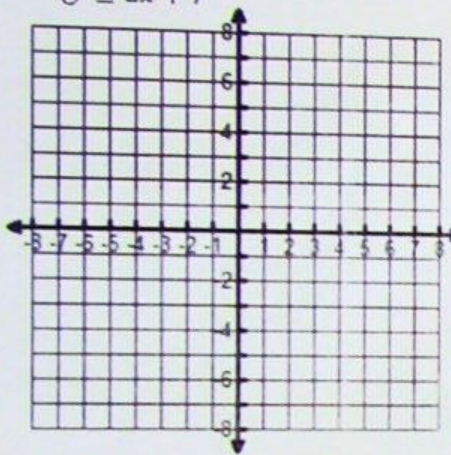
2) $\begin{cases} y < -4 \\ x > 5 \end{cases}$



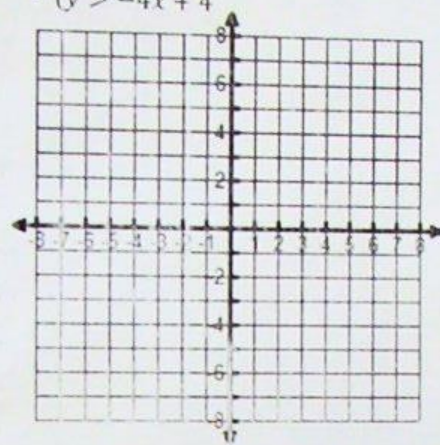
3) $\begin{cases} y > 3x \\ x < 1 \end{cases}$



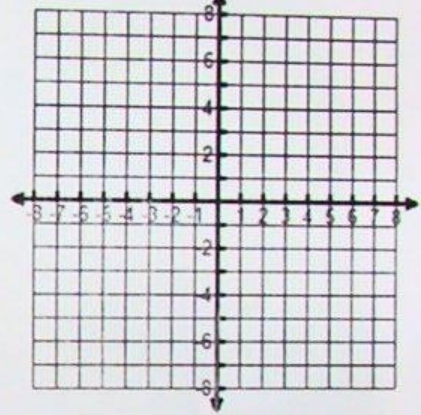
4) $\begin{cases} x > -2 \\ y \leq 2x + 7 \end{cases}$



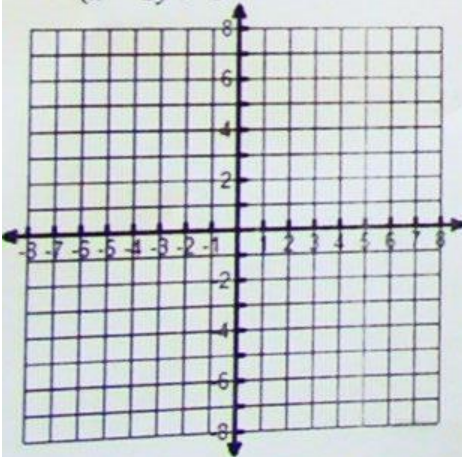
5) $\begin{cases} y < 4x + 4 \\ y > -4x + 4 \end{cases}$



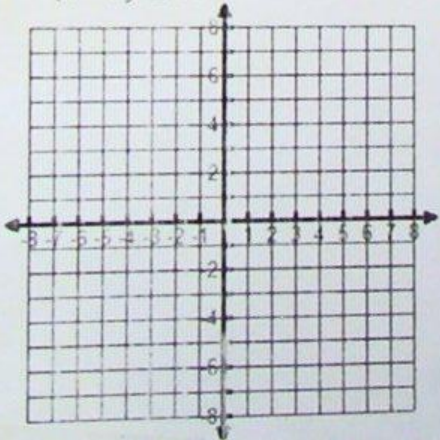
6) $\begin{cases} y < 5x + 3 \\ y > 5 - 5x \end{cases}$



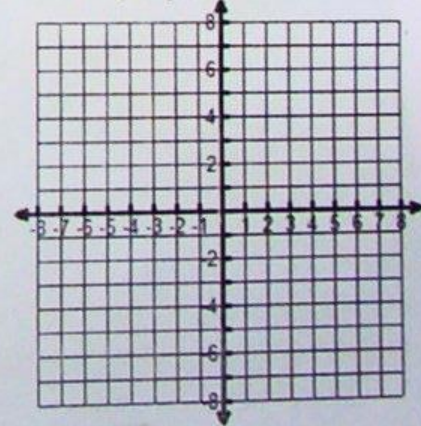
7) $\begin{cases} x + y \geq 5 \\ x - 2y > 8 \end{cases}$



8) $\begin{cases} x - y < 7 \\ x - 3y \geq 15 \end{cases}$

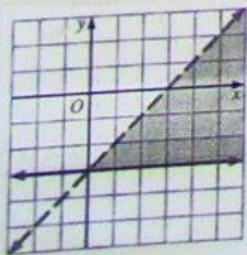


9) $\begin{cases} x - y \geq 4 \\ x + y \leq 6 \end{cases}$

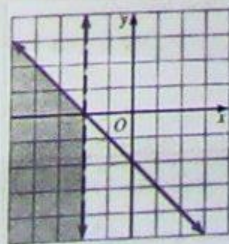


Write a system of linear inequalities whose solution set is shown by the shaded region in each graph.

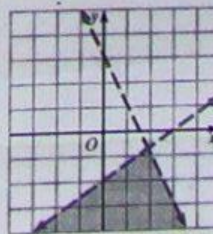
10)



11)



12)



13)

