

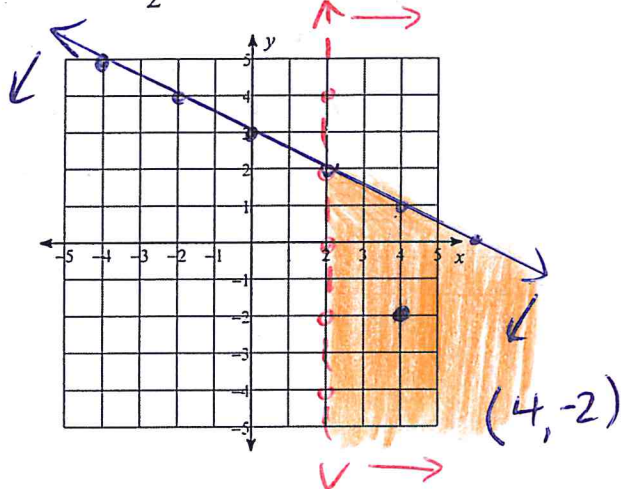
Systems of Linear Inequalities Practice 3

Date _____

Sketch the solution to each system of inequalities. State at least one solution to the system. (,)

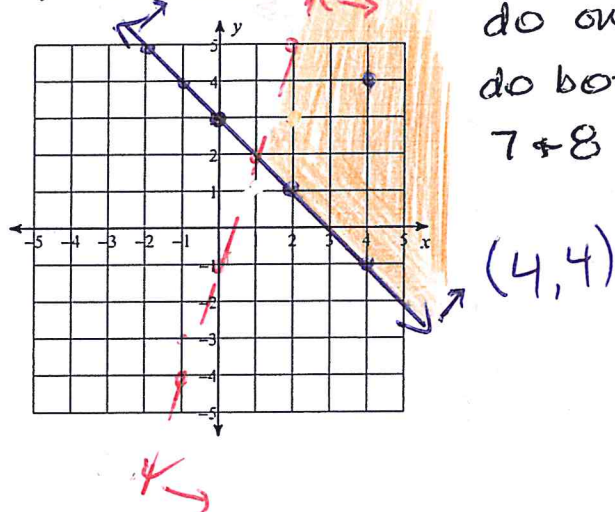
1) $x > 2$ -----

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



2) $y < 3x - 1$ -----

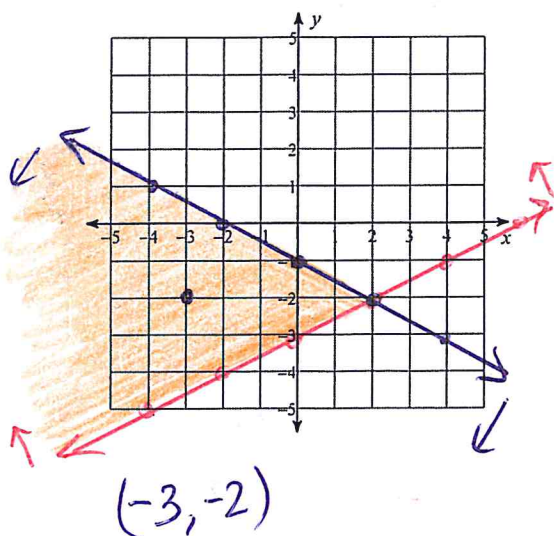
$y \geq -x + 3$ -----



Pick 3 to
do on 1-6;
do both of
7 & 8

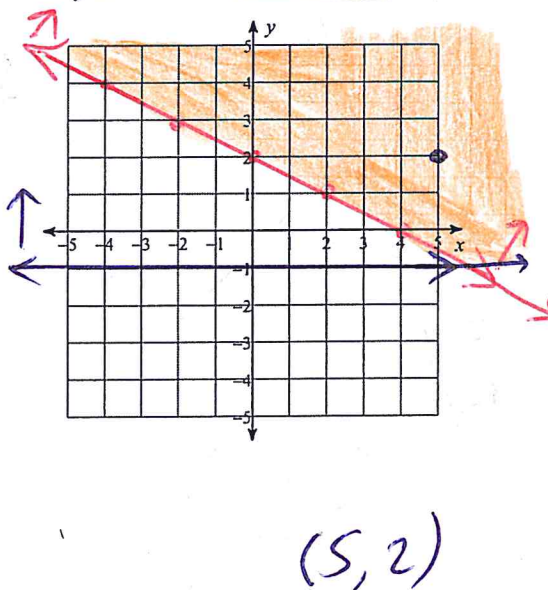
3) $y \geq \frac{1}{2}x - 3$ -----

$y \leq -\frac{1}{2}x - 1$ -----



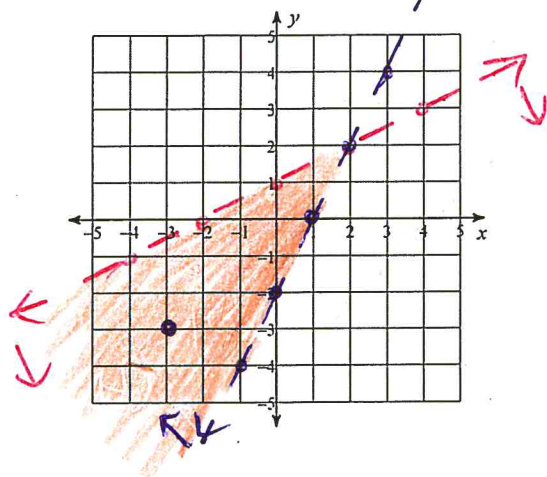
4) $y > -\frac{1}{2}x + 2$ -----

$y \geq -1$ -----



$$5) y < \frac{1}{2}x + 1$$

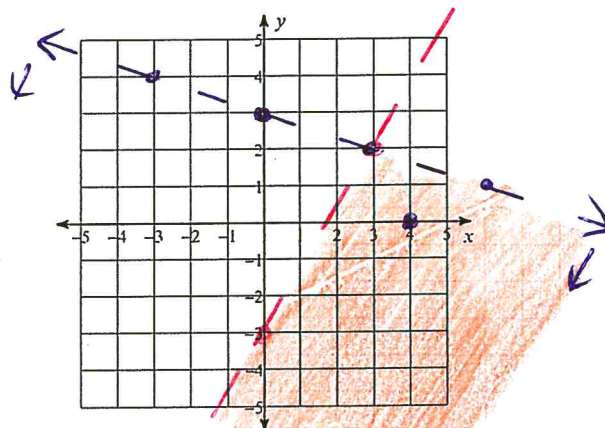
$$y > 2x - 2$$



$(-3, -3)$

$$6) y < \frac{5}{3}x - 3$$

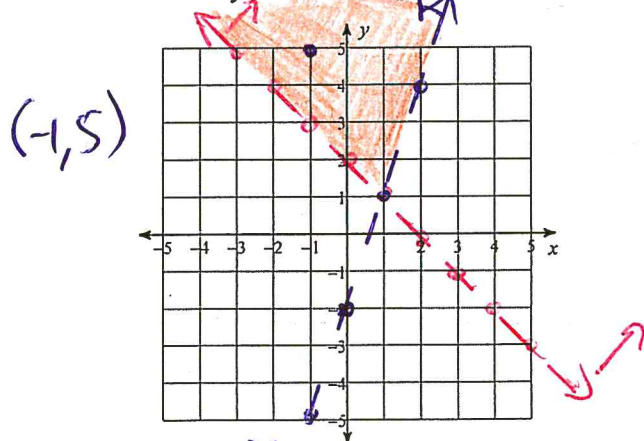
$$y < -\frac{1}{3}x + 3$$



$(4, 0)$

$$7) x + y > 2$$

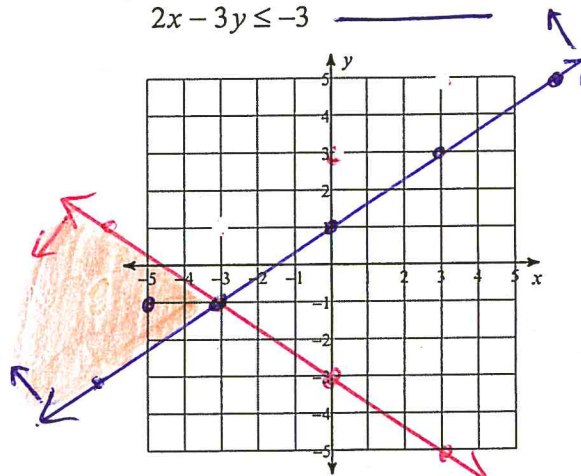
$$3x - y < 2$$



$(-1, 5)$

$$8) 2x + 3y \leq -9$$

$$2x - 3y \leq -3$$



$(-5, -1)$

$$\begin{array}{rcl} x + y & > & 2 \\ -x & & -x \\ \hline y & > & -x + 2 \end{array} \quad \begin{array}{rcl} 3x - y & < & 2 \\ -3x & & -3x \\ \hline -y & < & -3x + 2 \\ -1 & & -1 \\ \hline y & > & 3x - 2 \end{array}$$

$$\begin{array}{rcl} 2x + 3y & \leq & -9 \\ -2x & & -2x \\ \hline 3y & \leq & -2x - 9 \\ 3 & & 3 \\ \hline y & \leq & -\frac{2}{3}x - 3 \end{array} \quad \begin{array}{rcl} 2x - 3y & \leq & -3 \\ -2x & & -2x \\ \hline -3y & \leq & -2x - 3 \\ -3 & & -3 \\ \hline y & \geq & \frac{2}{3}x + 1 \end{array}$$