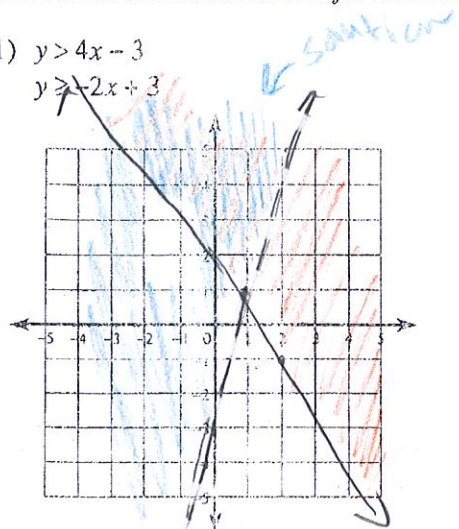


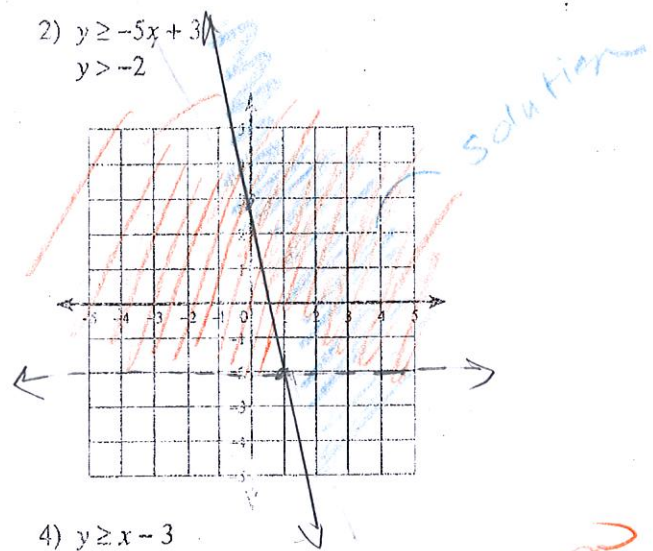
Systems of Inequalities

Sketch the solution to each system of inequalities.

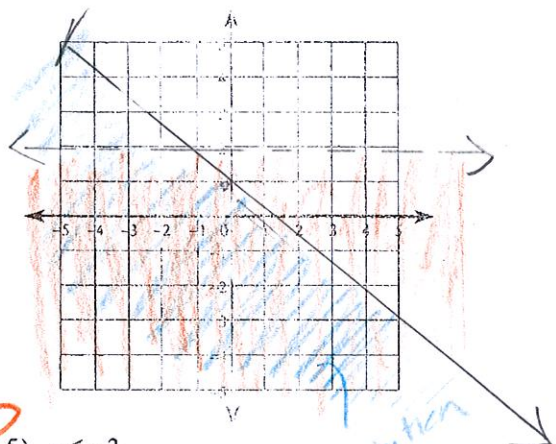
1) $y > 4x - 3$
 $y \geq -2x + 3$



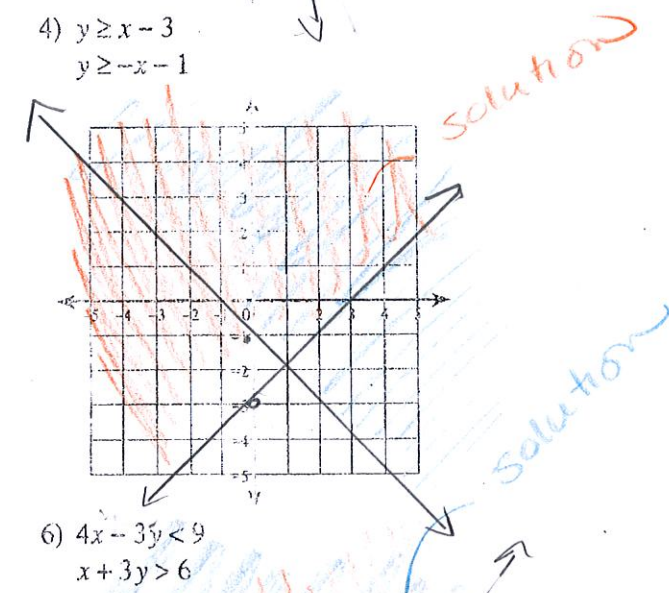
2) $y \geq -5x + 3$
 $y > -2$



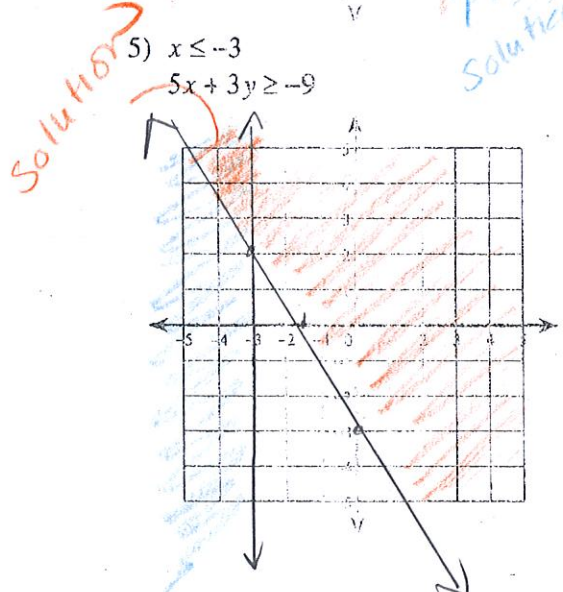
3) $y < 3$
 $y \leq -x + 1$



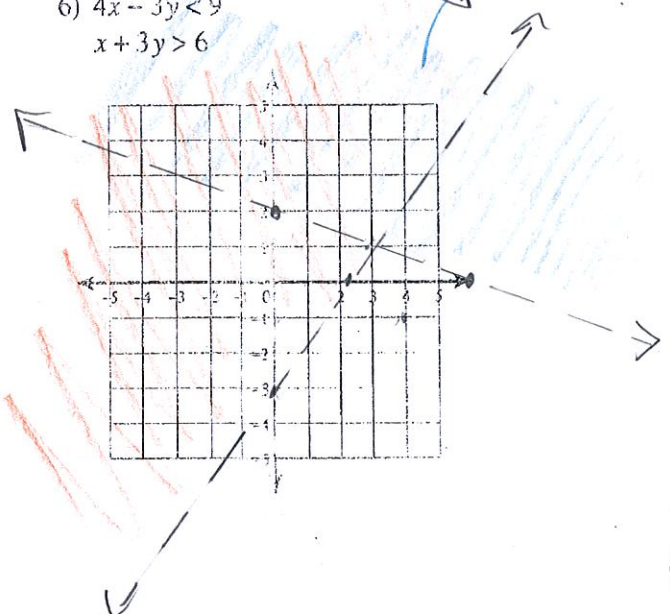
4) $y \geq x - 3$
 $y \geq -x - 1$



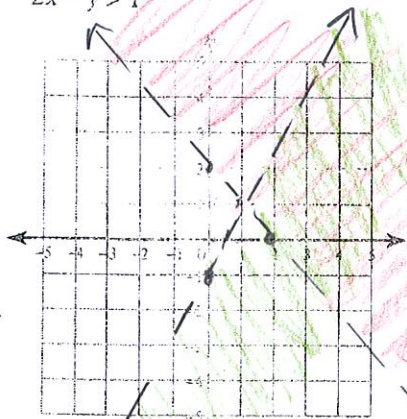
5) $x \leq -3$
 $5x + 3y \geq -9$



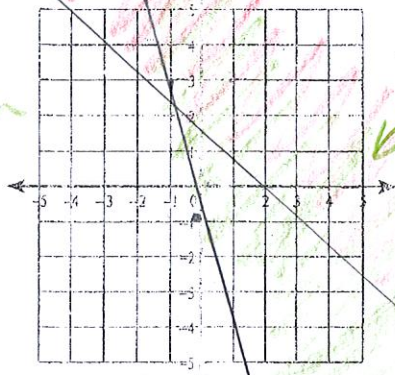
6) $4x - 3y < 9$
 $x + 3y > 6$



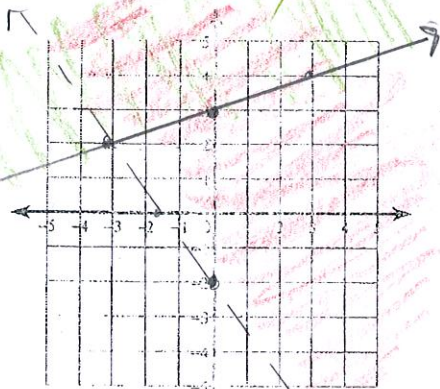
7) $x + y > 2$
 $2x - y > 1$



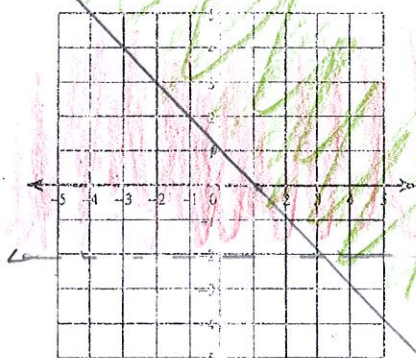
8) $x + y \geq 1$
 $4x + y \geq -1$



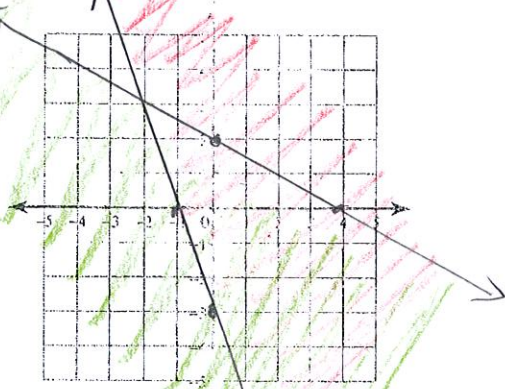
9) $4x + 3y > -5$
 $x - 3y \leq -9$



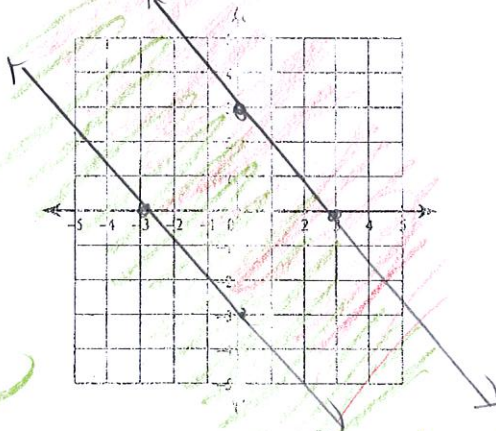
10) $y < -2$
 $x + y \geq 1$



11) $3x + y \geq -3$
 $x + 2y \leq 4$



12) $x + y \geq -3$
 $x + y \leq 3$



Critical thinking questions

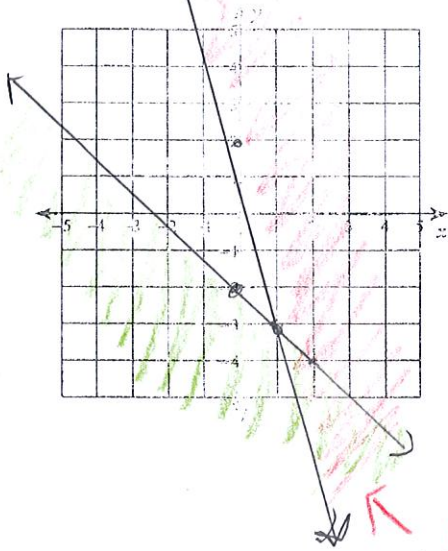
13) State one solution to the system
 $y < 2x - 1$
 $y \geq 10 - x$

14) Write a system of inequalities whose solution is the set of all points in quadrant I not including the axes.

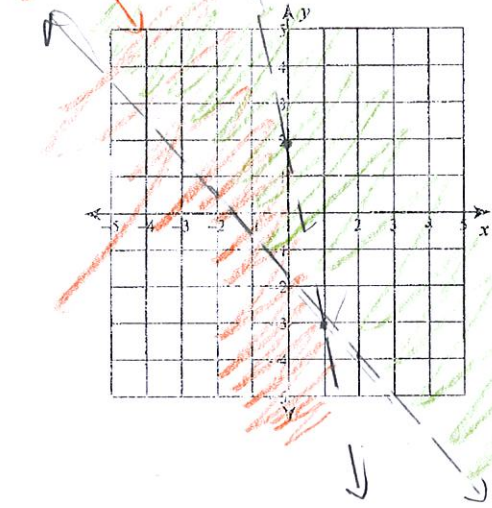
Solving Systems of Inequalities

Sketch the solution to each system of inequalities.

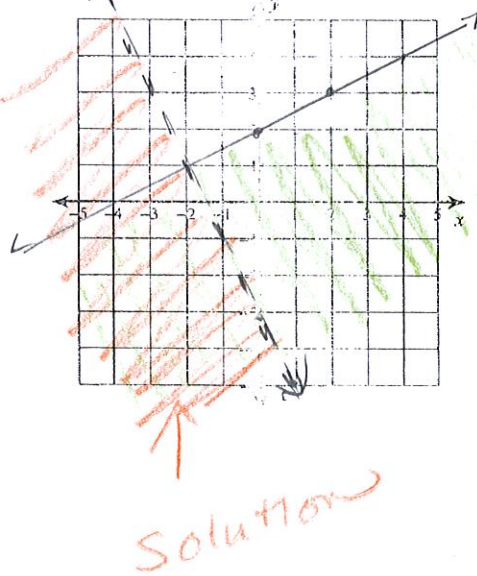
1) $y \leq -x - 2$
 $y \geq -5x + 2$



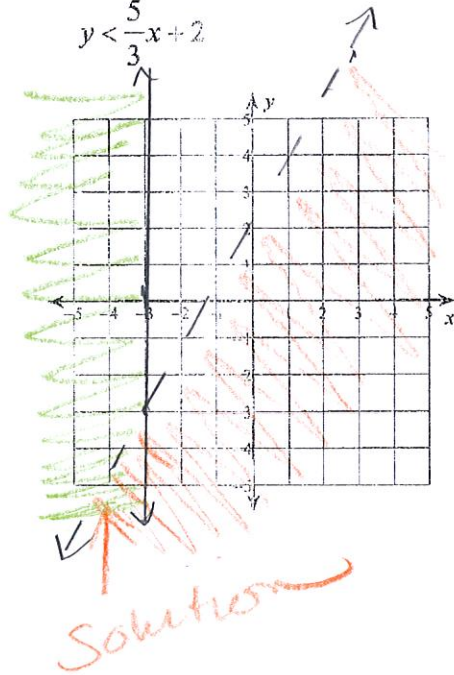
2) $y > -x - 2$
 $y < -5x + 2$



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

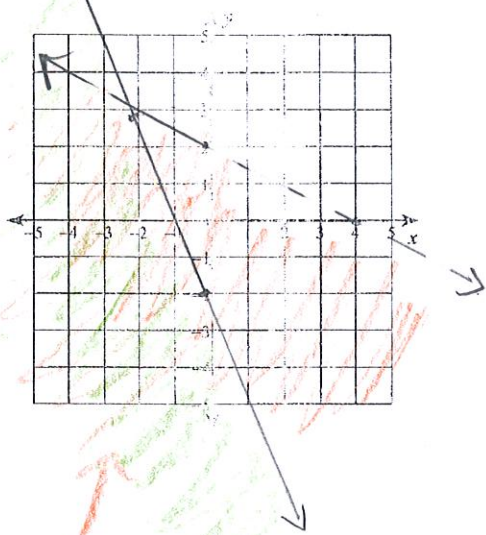


4) $x \leq -3$
 $y < \frac{5}{3}x + 2$



$$5) y \leq -\frac{5}{2}x - 2$$

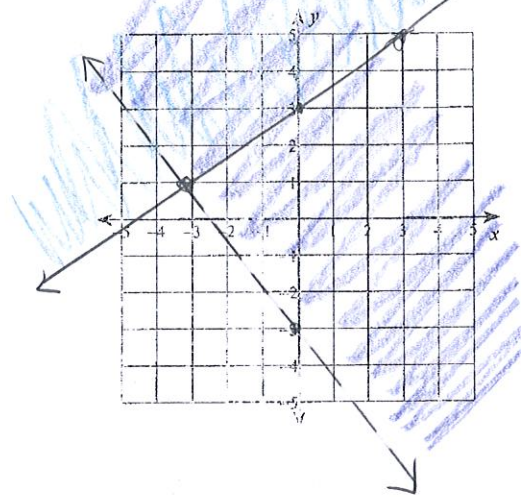
$$y < -\frac{1}{2}x + 2$$



Solution

$$6) y \geq \frac{2}{3}x + 3$$

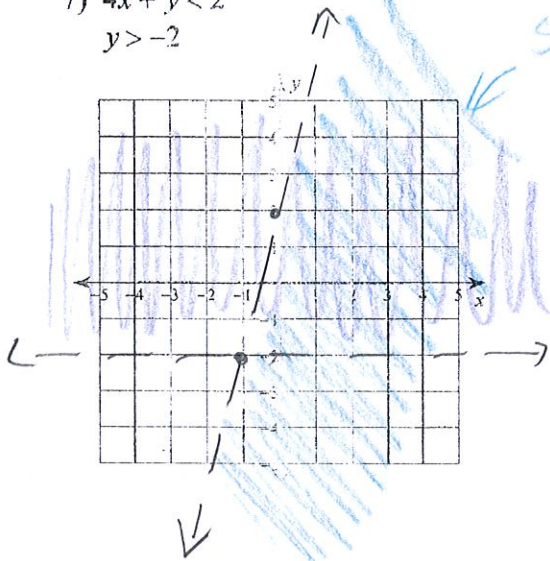
$$y > -\frac{4}{3}x - 3$$



Solution

$$7) 4x + y < 2$$

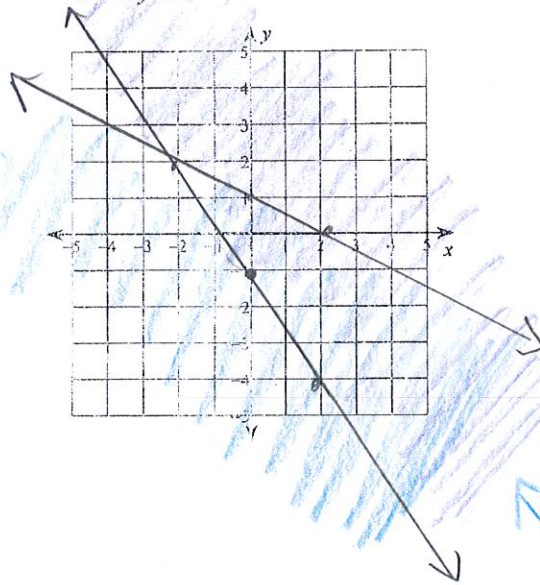
$$y > -2$$



Solution

$$8) 3x + 2y \geq -2$$

$$x + 2y \leq 2$$



Solution