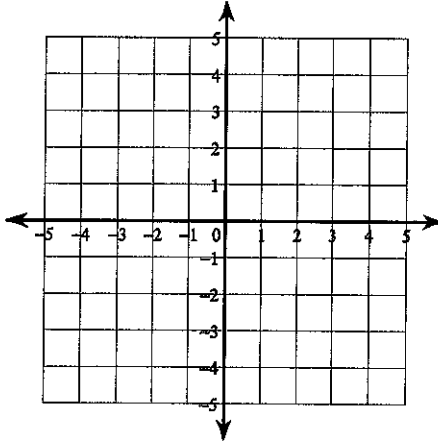


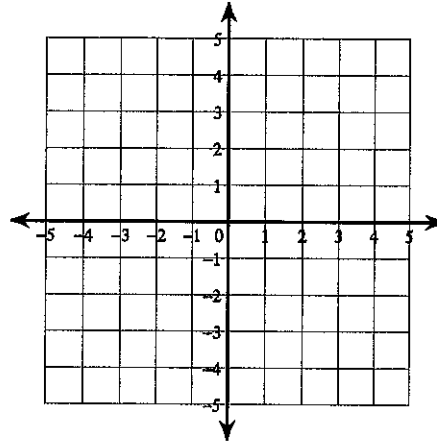
## Systems of Inequalities

Sketch the solution to each system of inequalities.

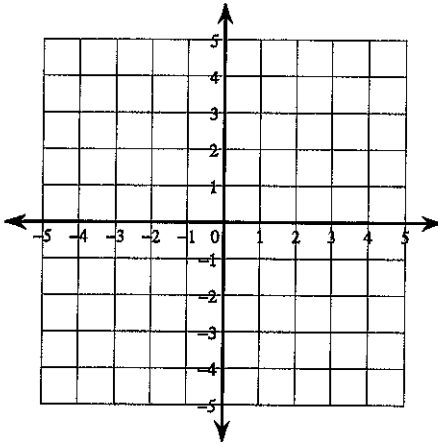
$$\begin{aligned} 1) \quad & y > 4x - 3 \\ & y \geq -2x + 3 \end{aligned}$$



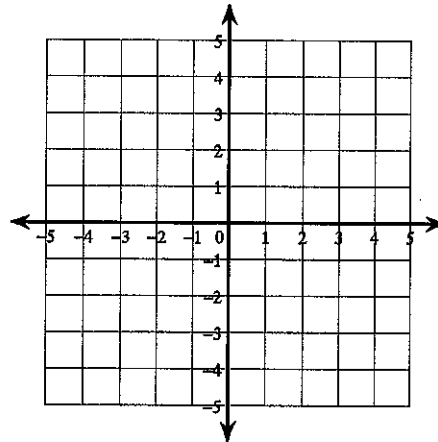
$$\begin{aligned} 2) \quad & y \geq -5x + 3 \\ & y > -2 \end{aligned}$$



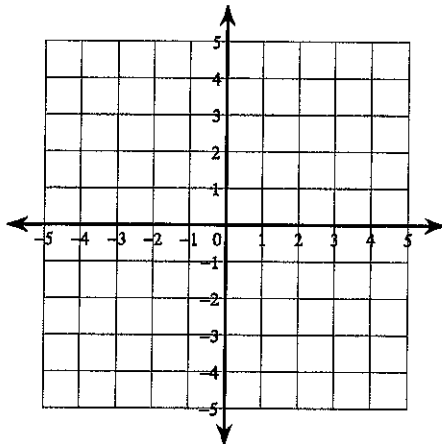
$$\begin{aligned} 3) \quad & y < 3 \\ & y \leq -x + 1 \end{aligned}$$



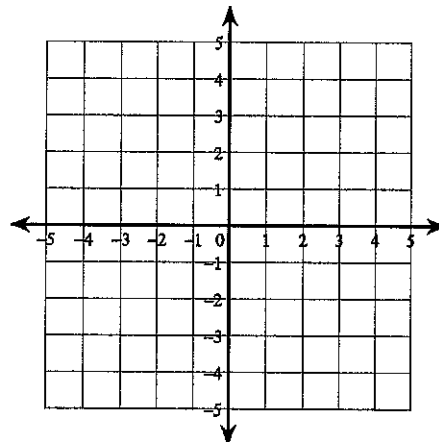
$$\begin{aligned} 4) \quad & y \geq x - 3 \\ & y \geq -x - 1 \end{aligned}$$



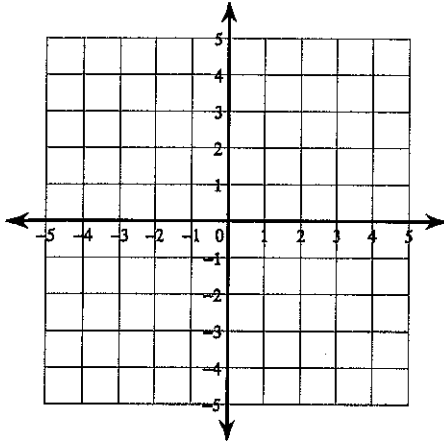
$$\begin{aligned} 5) \quad & x \leq -3 \\ & 5x + 3y \geq -9 \end{aligned}$$



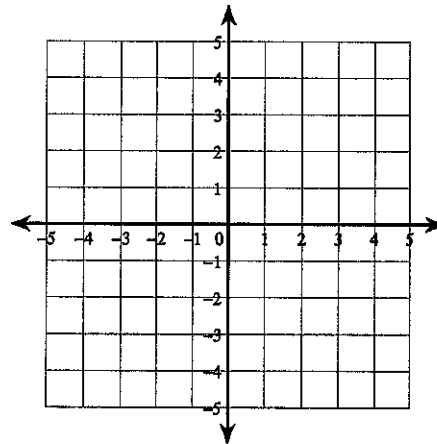
$$\begin{aligned} 6) \quad & 4x - 3y < 9 \\ & x + 3y > 6 \end{aligned}$$



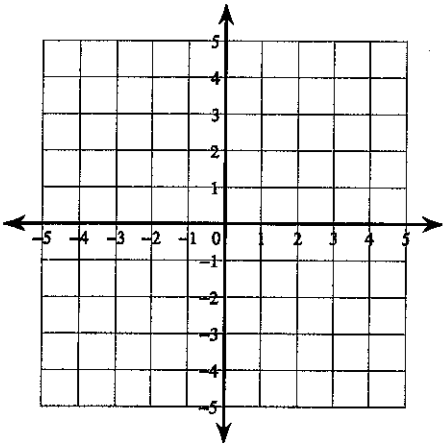
7)  $x + y > 2$   
 $2x - y > 1$



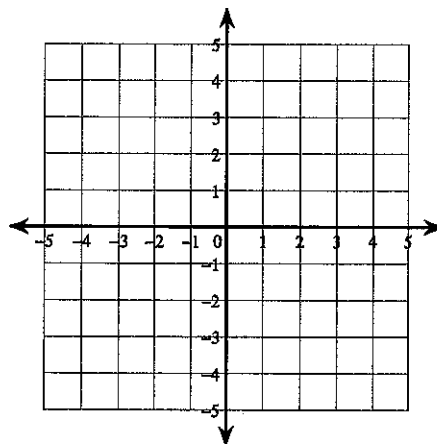
8)  $x + y \geq 2$   
 $4x + y \geq -1$



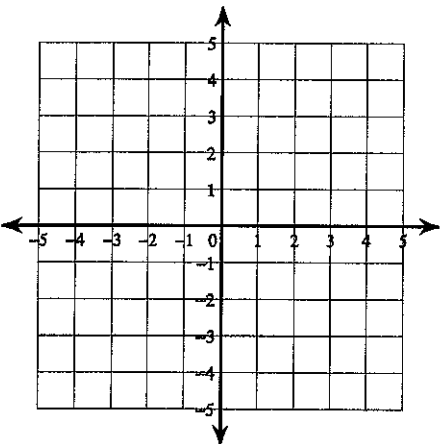
9)  $4x + 3y > -6$   
 $x - 3y \leq -9$



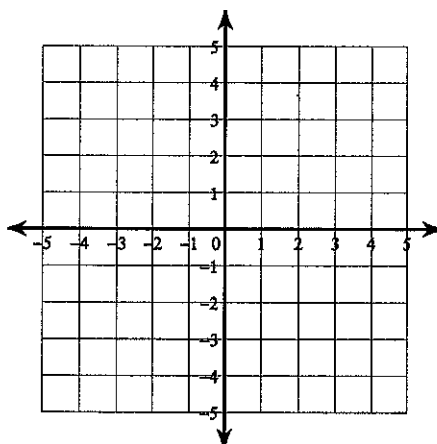
10)  $y < -2$   
 $x + y \geq 1$



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.