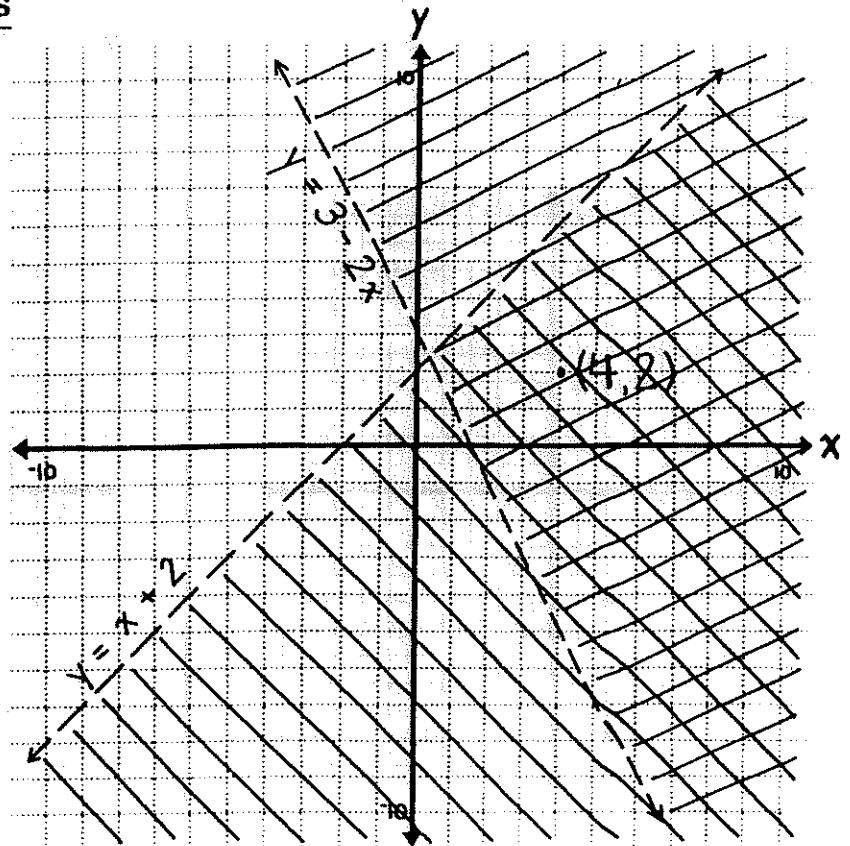


## Solving Systems of Inequalities

To solve a system of inequalities we can graph both inequalities using the same pair of axes.

$$y < x + 2$$

$$y > 3 - 2x$$



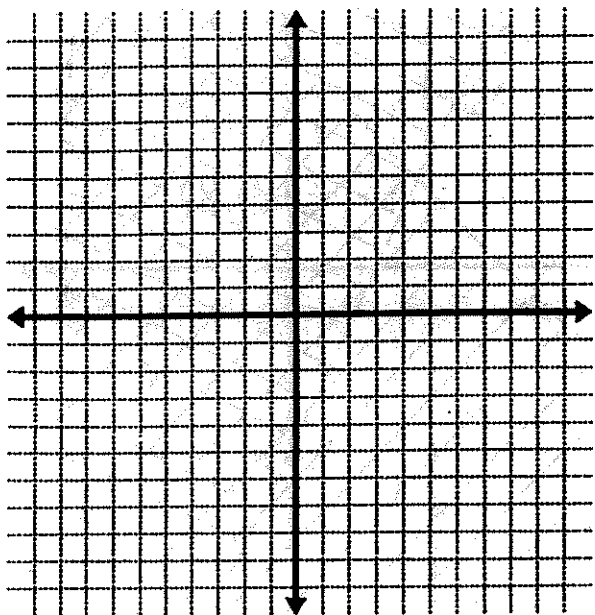
Now you test the other points in the table below to see if they are solutions.

$(x, y)$	Is $(x, y)$ in the double-shaded region?	? $y < x + 2$	? $y > 3 - 2x$	Is $(x, y)$ a solution?
$(4, 2)$	yes	$2 < 4 + 2$ $2 < 6$ yes	$2 > 3 - 2(4)$ $2 > -5$ yes	yes
$(6, -1)$				
$(2, -5)$				
$(-5, 3)$				
$(3, 5)$				
Pick a point.				

Show the solution set for each system of inequalities. Give one point in the solution set.

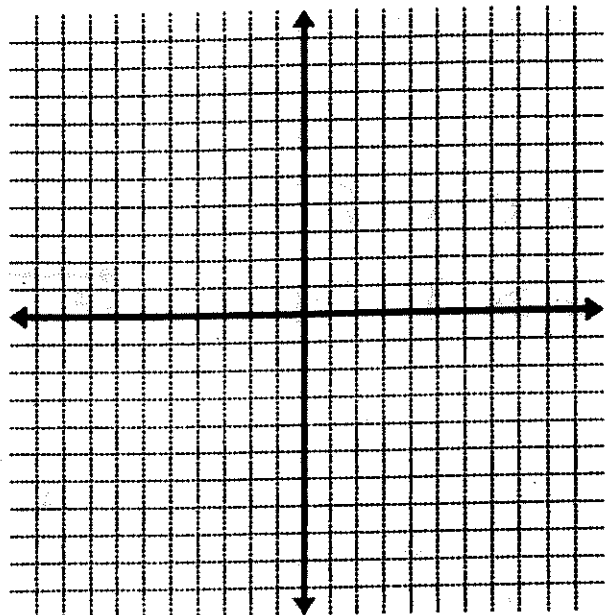
$$y > 2x - 7$$

$$y > -2x + 2$$



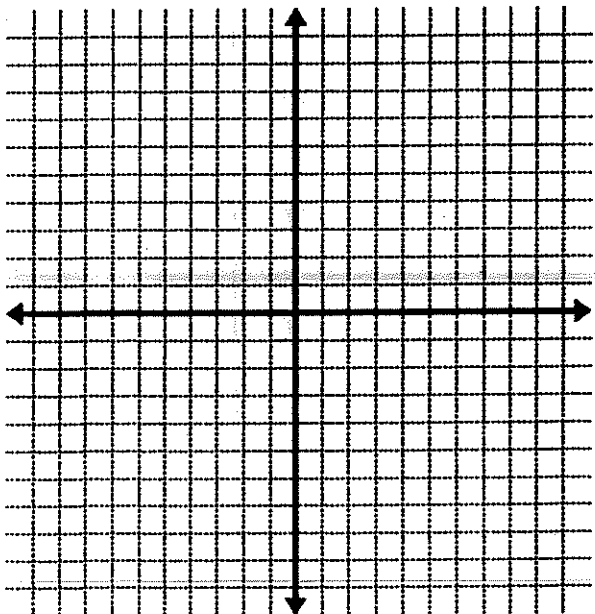
$$y > x - 3$$

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



$$y \leq \frac{3}{5}x + 1$$

$$y \geq -x$$



$$y \geq \frac{2}{5}x + 3$$

$$y \geq -x + 3$$

