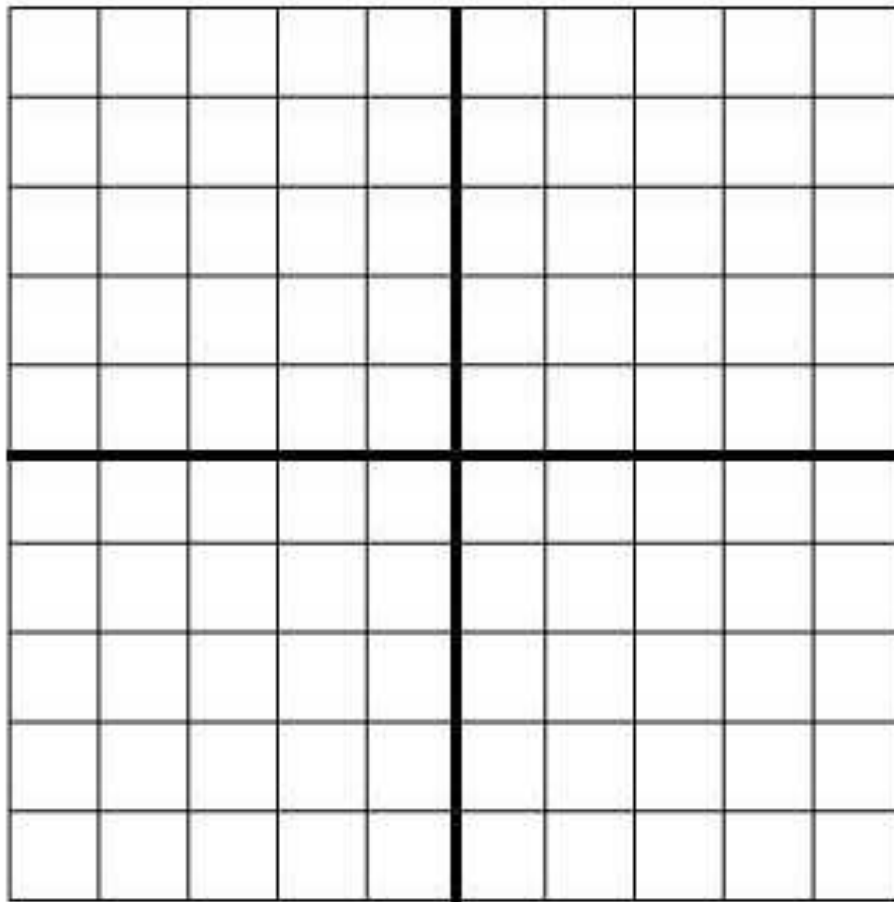


## 3.3 Solving Systems of Inequalities by Graphing

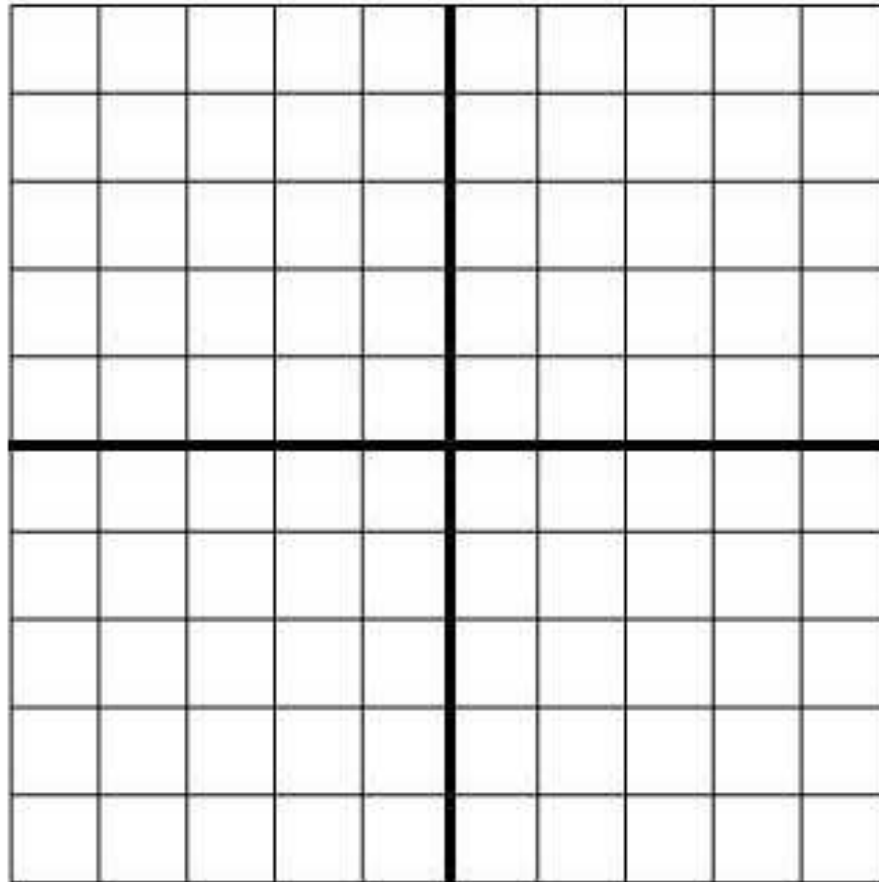
- 1) Solve systems of inequalities by graphing,
- 2) Determine the coordinates of the vertices of a region formed by the graph of a system of inequalities.

When solving systems of inequalities, graph and shade each inequality separately. The answer is the overlapping shaded areas...

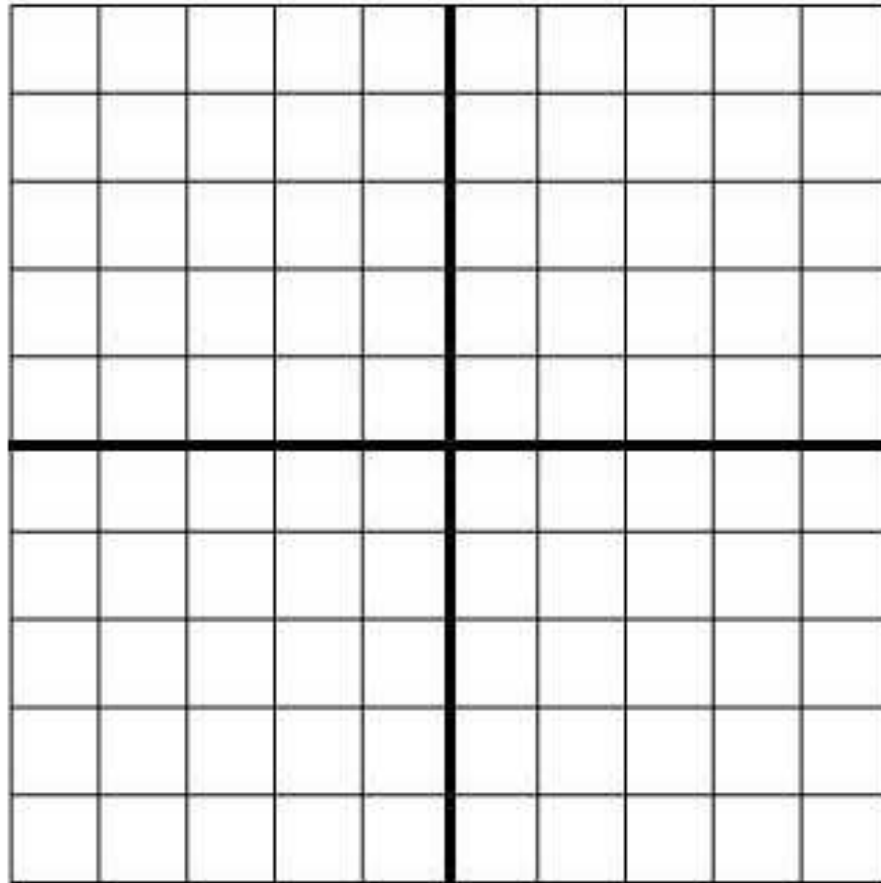
Solve:  $y > -2x + 4$  and  $y \leq x - 2$



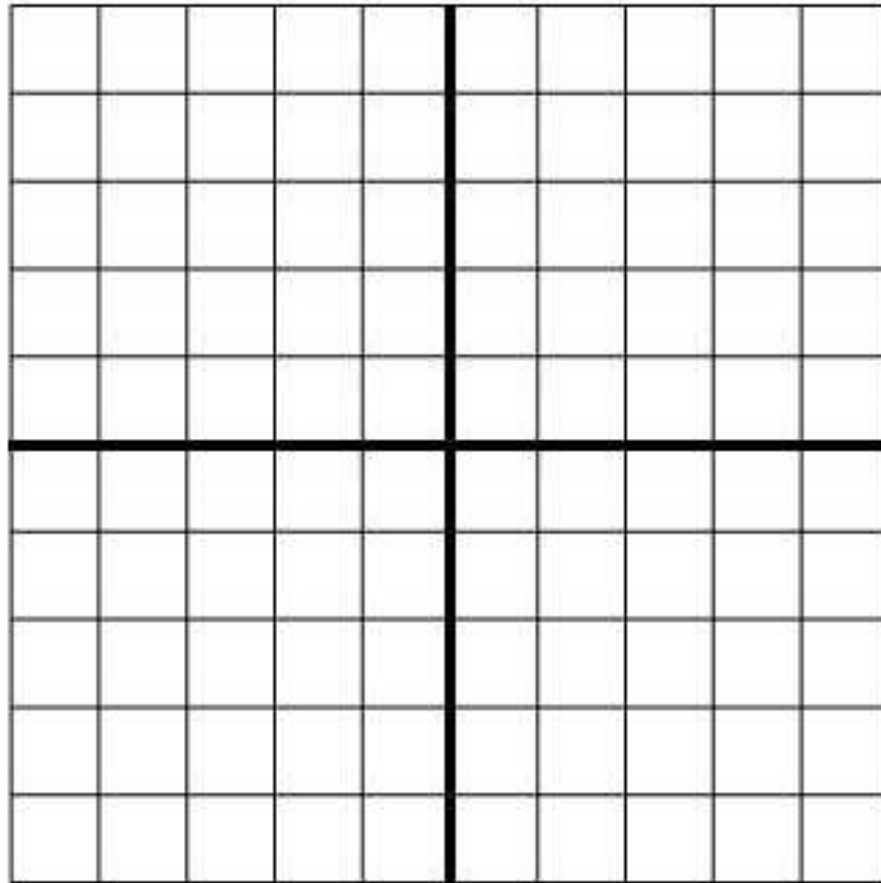
Solve:  $y > x + 1$  and  $|y| \leq 3$



Solve  $y > \frac{1}{2}x + 1$  and  $y < \frac{1}{2}x - 3$



Find the coordinates of the vertices of the figure formed by  $x + y \geq -1$ ,  $x - y \leq 6$  and  $12y + x \geq 32$ .



Find the coordinates of the vertices of the figure formed by  $x + y \geq -1$ ,  $x - y \leq 6$  and  $12y + x \geq 32$ .



# Homework

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