



Chapter 7 Section 6

Systems of Linear Inequalities

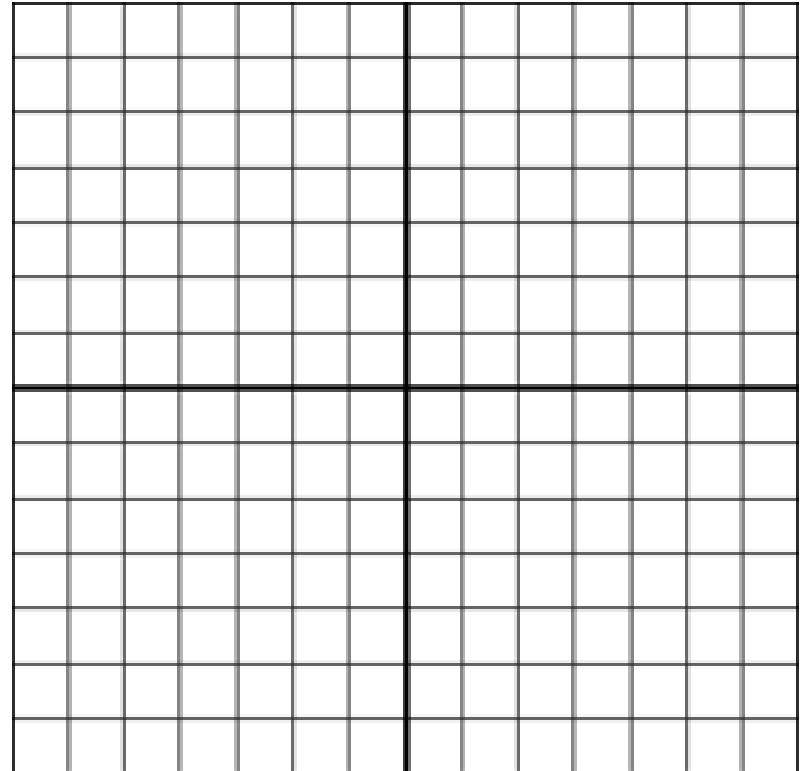
Graphing Systems of Inequalities

• STEPS:

- Rewrite inequalities in slope-intercept form
 $y = mx + b$
- Graph the first inequality
- Shade in the correct area
- Graph the second inequality
- Shade in the correct area
- Where the shading overlaps is the answer
 - Darken that area
 - $<$ or $>$ is a dotted line
 - \leq or \geq is a solid line

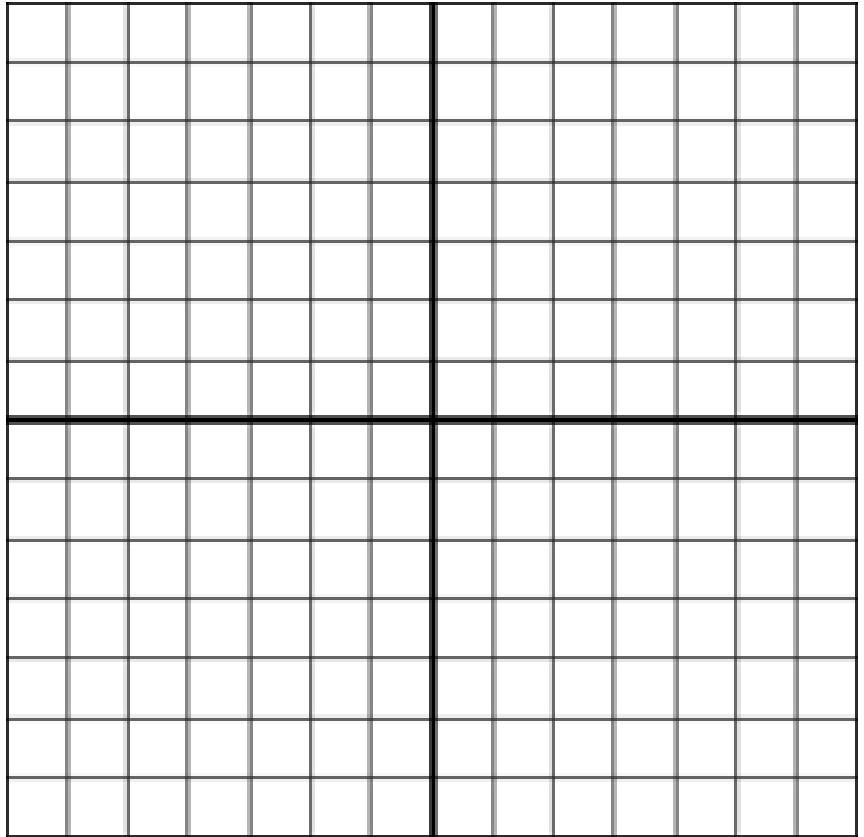
Examples:

1. $2x + y \geq -4$
 $x - 2y < 4$



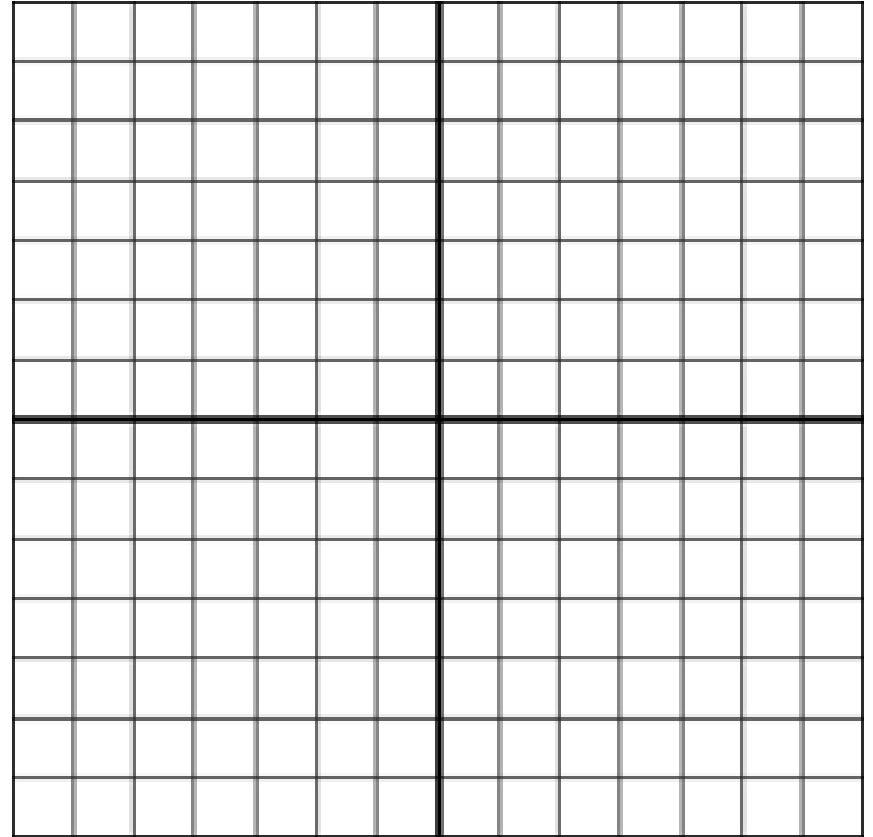
Examples:

2.
$$-x + y \geq -2$$
$$y - 1 < x$$



Examples:

3. $3x + y \leq 5$
 $y > 2$



Examples:

4.

$$y \leq 6$$
$$x > -3$$
$$y \geq 2x - 1$$

