DIGITAL

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Module 10 Solving Systems of Linear Equations
and Inequalities
Lesson 4 Solving Systems of Linear
Inequalities by Graphing

*guided
notes*

Lesson Objective

• Graph the solution set of a system of linear inequalities.

When graping linear inequalities of two variables:

• Graph the _____ line.

• Use _____ line or _____ line

$$< \qquad\qquad \leq$$

$$> \qquad\qquad \geq$$

• Pick a point on either side of the boundary line.

• Determine which side of the line to shade.

1 Graph:

$$\begin{cases} y < x + 2 \\ y > -2x + 3 \end{cases}$$

2 Graph:

$$\begin{cases} y \geq -3x + 4 \\ y > x - 2 \end{cases}$$

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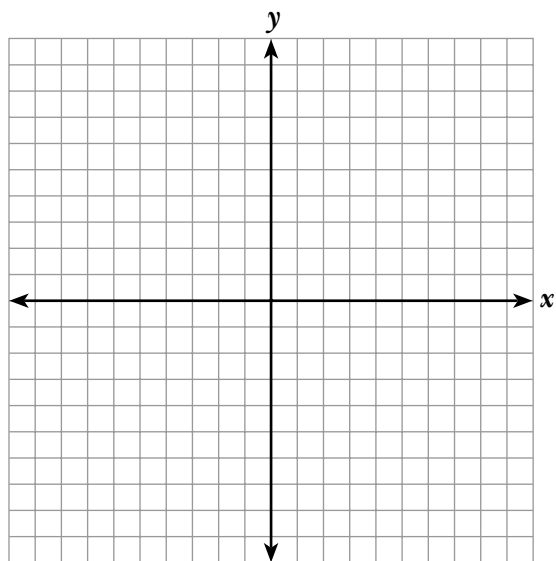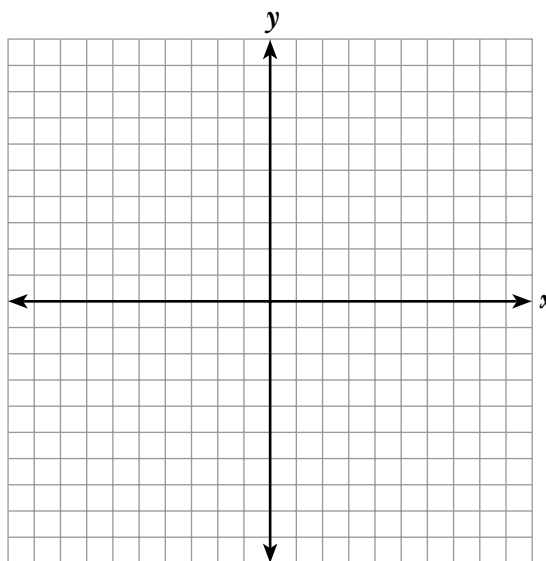If the shaded regions do not overlap, the system of linear inequalities has _____ .

3 Graph:

$$\begin{cases} x + 2y \geq -2 \\ x + 2y < 6 \end{cases}$$
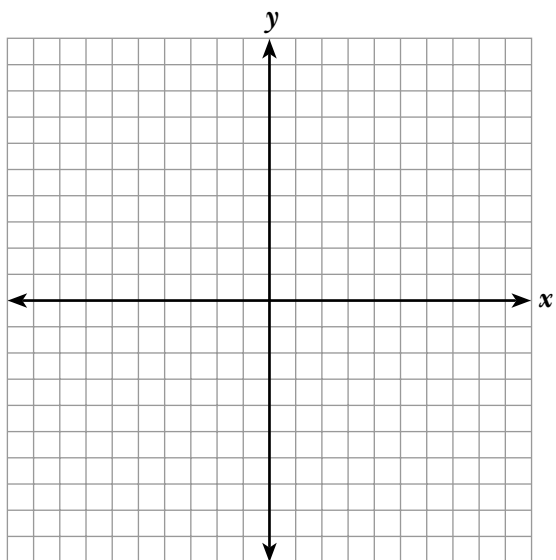
4 Graph:
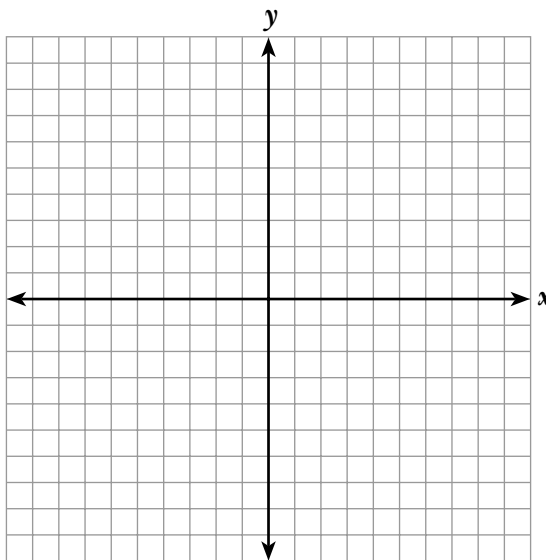
$$\begin{cases} y < -2x - 4 \\ 4x + 2y > 2 \end{cases}$$

5 Graph:

$$\begin{cases} x < 0 \\ y < 0 \end{cases}$$

6 Graph:

$$\begin{cases} x \geq 1 \\ x \leq 3 \\ x \geq 2 \\ x \leq 5 \end{cases}$$