

Algebra I

Notes Section 6.6

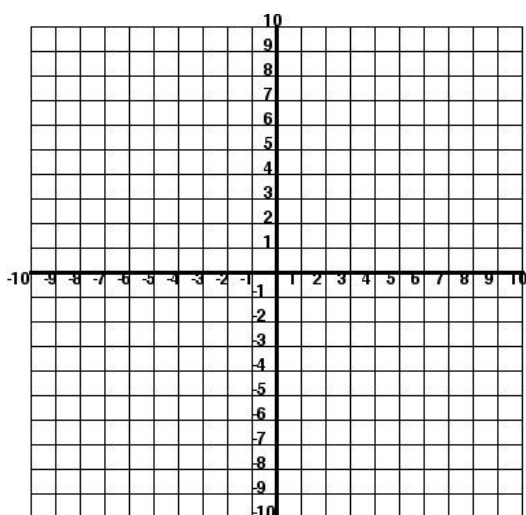
Solve Systems of Linear Inequalities

Big Ideas

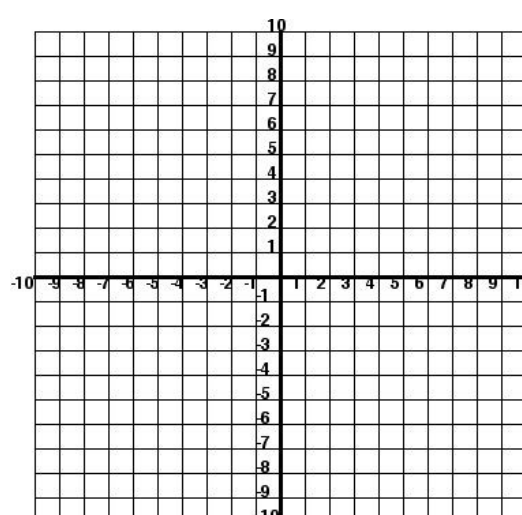
1. How to graph a system of inequalities and determine it's solutions.
2. How to determine a system of inequalities from a graph.

EXAMPLE 1 Graph the system of inequalities.

$$\begin{aligned} \text{a) } y &> -x - 2 \\ y &\leq 3x + 6 \end{aligned}$$

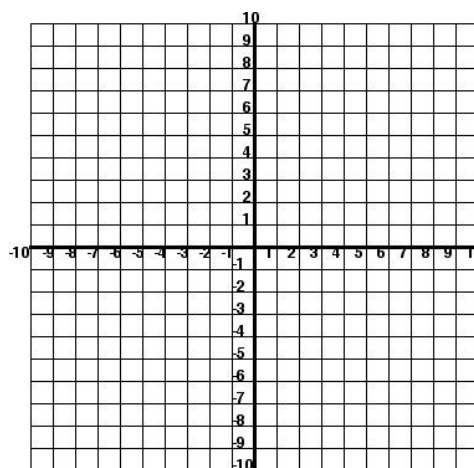


$$\begin{aligned} \text{b) } y &< 3x \\ y &\geq -2x + 1 \end{aligned}$$



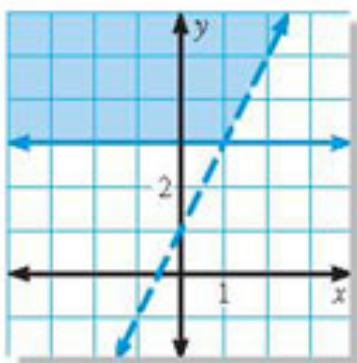
EXAMPLE 2 Graph the system of inequalities.

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



EXAMPLE 3 Write a system of inequalities for the shaded region.

a)



b)

