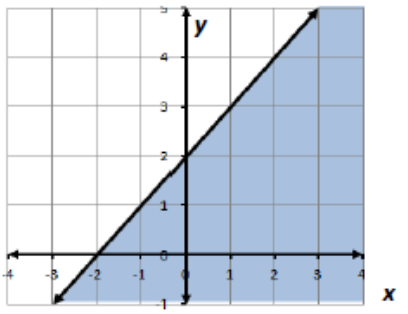
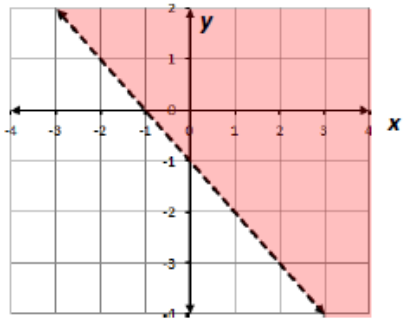
Graphing Linear Inequalities

Example	Graph
$y \leq x + 2$	
$y > -x - 1$	

The graph of the solution of a linear inequality is a half-plane bounded by the graph of its related linear equation. Points on the boundary are included unless the inequality contains only < or >.

System of Linear Inequalities

Solve by graphing:

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

The solution region contains all ordered pairs that are solutions to both inequalities in the system.

(-1,1) is <u>one</u> solution to the system located in the solution region.