

Check whether the given ordered pair is a solution of $2x + 3y \geq 5$.

Ex 1: $(0, 1)$

Ex 2: $(4, -1)$

Ex 3: $(2, 1)$

Graphing a Linear Inequality.

Step 1: Imagine that it is equal long enough to get two points for the line

Step 2: Decide how to connect

Solid $(\leq \geq)$

Dotted $(< >)$

Step 3: Decide which side to shade
Pick a pt. and plugging in

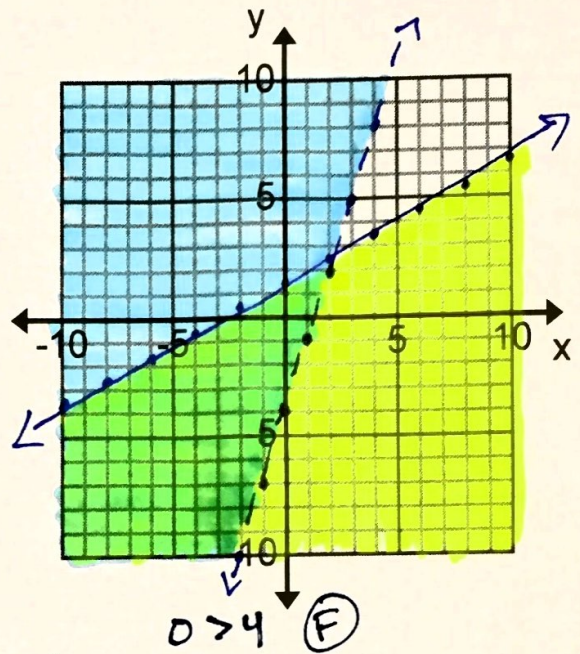
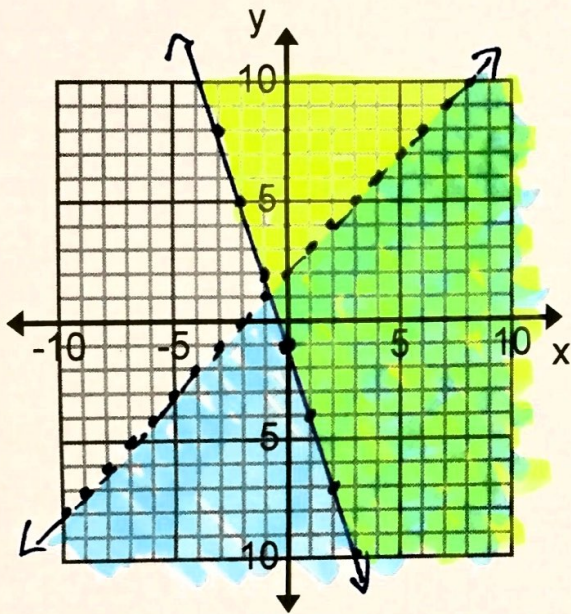
True \rightarrow shade over the pt.

False \rightarrow shade the opposite side as the pt.

Graph the following inequalities in a coordinate plane.

Ex 4:
$$\begin{cases} y \geq -3x - 1 & 0 \geq -1 \text{ (T)} \\ y < x + 2 \end{cases}$$

Ex 5:
$$\begin{cases} x - 2y \leq 3 & \frac{x+3}{2} = 2y \\ y > 3x - 4 \end{cases}$$



Ex 6:
$$\begin{cases} y < 3 \\ x > -2 \end{cases}$$

Ex 7:
$$\begin{cases} 2x - y > 4 & 0 < -3 \text{ (F)} \\ 2x - y < -3 \end{cases}$$

 $y = 2x - 4$
 $y = 2x + 3$

