When the equality symbol (=) is replaced in a linear equation by an inequality symbol (<, >) it is now called an inequality equation.

1) Graphing inequalities

1. Take the inequality and graph as a linear equation (replace with a =)
   \[ y \leq x + 3 \rightarrow y = x + 3 \]
   \[ b = 3, \quad (0,3) \]
   \[ m = \frac{1}{1} \]

2. Test any point not on the line
   - Use \((1,2)\) substitute
   - \((0,0)\) or \(y \geq x + 3\)
   - \((1,1)\) \(2 \geq 1 + 3\)
   - \(2 \neq 4\) not true

3. Shade what side is true.

\[ y \leq x - 1 \]
\[ y \geq x + 1 \]
\[ 2y + 5x \leq 10 \]
\[ 6y + 3x \leq 12 \]
Graph each inequality:

1. \( y > -2x + 1 \)
2. \( y \geq 3x - 2 \)
3. \( 5x + y \leq 2 \)
4. \( y \leq \frac{3}{4}x + 4 \)
5. \(-3(4x + y) \geq -60\)
6. \(3x - 5y > 7\)