

Graphing Inequalities

Name: _____

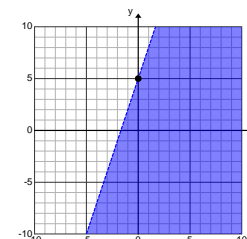
Date: _____

Example: Graph the inequality and shade the region. $y < 3x + 5$

Step One: Graph the linear equation. Before drawing the line, decide if it should be solid or dashed. If the inequality is $<$ or $>$, it will be a dashed line. If \leq or \geq , then a solid line. The example above is dashed.

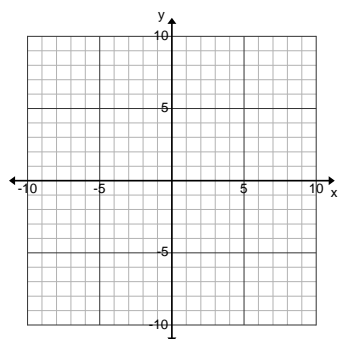
Step Two: After graphing the line, decide which half-plane to shade. Try a test point, like $(0,0)$ to determine if it is a solution.

Step Three: If the test point works, shade that region. If it does not shade the other half-plane.

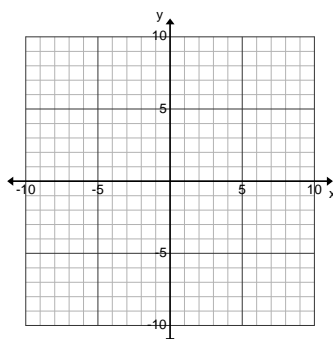


Directions: Graph each inequality.

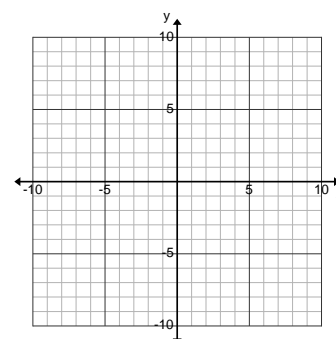
1. $y \leq \frac{2}{3}x - 6$



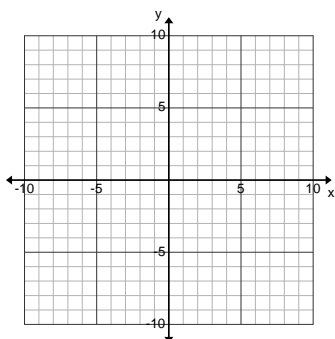
2. $y < \frac{1}{2}x + 4$



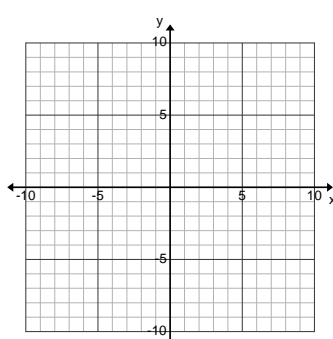
3. $y > -3x$



4. $y > -2x - 1$



5. $y \geq 4x - 2$



6. $y \leq 2x + 5$

