NAME _____ DATE _____ PERIOD _____

5-6 Notes

Graphing Inequalities in Two Variables

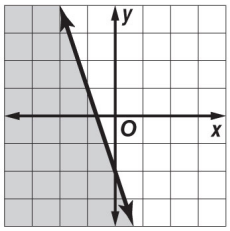
Graph Linear Inequalities The solution set of an inequality that involves two variables is graphed by graphing a related linear equation that forms a boundary of a **half-plane**. The graph of the ordered pairs that make up the solution set of the inequality fill a region of the coordinate plane on one side of the half–plane.

Example: Graph $y \leq -3x - 2$.

Graph $y = -3x - 2$.

Shade the graph based on a test point.

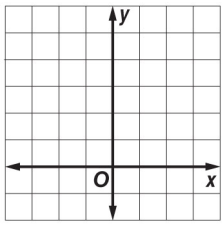
Ex. (0,0)



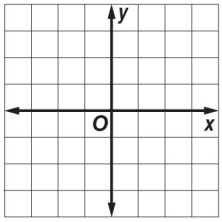
Exercises

Graph each inequality.

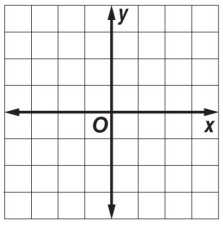
1. $y < x + 1$



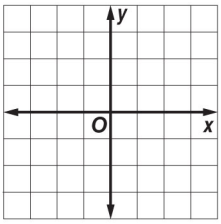
2. $x \geq 1$



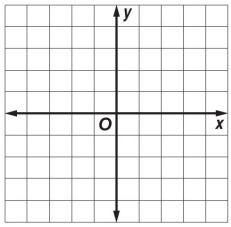
3. $y \leq 3$



4. $-x > y$



5. $x - y \geq 1$



6. $2x - 3y \leq 6$