



## Vocabulary: Systems of Linear Inequalities (Slope-intercept form)



### Vocabulary

- **Linear inequality** – an inequality whose graph is a half-plane with a linear boundary.
  - The linear inequality graphed to the right is  $y < 5x + 5$ .
    - The shaded part of the graph contains all points that are solutions of this inequality.
    - The *boundary* is the line with the equation  $y = 5x + 5$ , and is dashed because the inequality symbol used ( $<$ ) does not include the “equal to” part.
- **System of inequalities** – a set of two or more inequalities that contain the same variables.
  - The solution to a system of inequalities is the set of all points that make all the inequalities in the system true.
  - The system of linear inequalities graphed to the right is  $y > 2x - 1$  and  $y \leq -x + 3$ .
    - The solution to this system is the purple shaded region of the graph.

