

## 9.1 Linear Inequalities in Two Variables

Name: \_\_\_\_\_

A Linear Inequality has solution sets: all points in the Cartesian plane satisfy the inequality

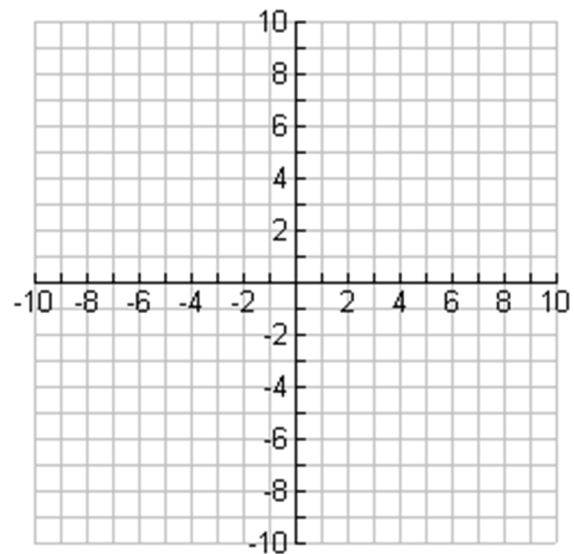
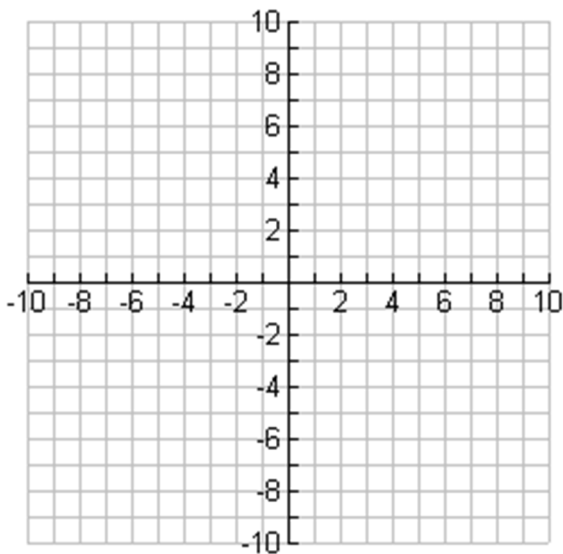
The line that satisfies the equality of  $Ax + By = C$  is the boundary between the solution sets.

Example:

1. a.) Graph  $2x + 3y \leq 6$

Use a test point to determine the correct region.

b.) Does the point  $(3, -2)$  satisfy this inequality?



2. a.) Graph  $5x - 20y > 0$

b.) Does the point  $(4, 1)$  satisfy this inequality?

Example 2:

Write an inequality Given its graph

