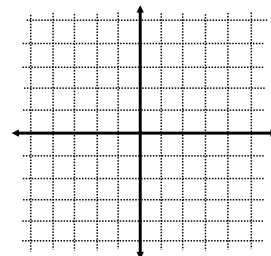## 9.1 Inequalities in Two Variables

* Symbols of inequality:

* graphically, $x \leq 5$ looks like: ⟵————————⟶

* A linear inequality in two variables however, describes an [____] on a cartesian plane either above or below the line:
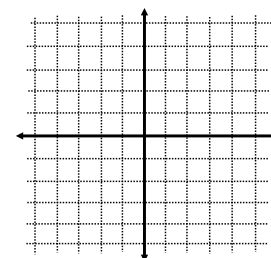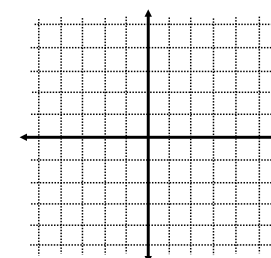
    ex. $y \leq x - 2$ looks like...

* If we have an [_____] inequality (< or >), we represent the boundary by a [_____] to indicate that the line itself is not part of the solution.

* To determine which side of the boundary is shaded, simply test a coordinate to see if it satisfies the inequality
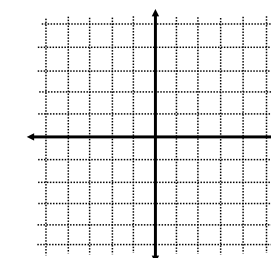
    ex. graph $y > 0.5x + 1$

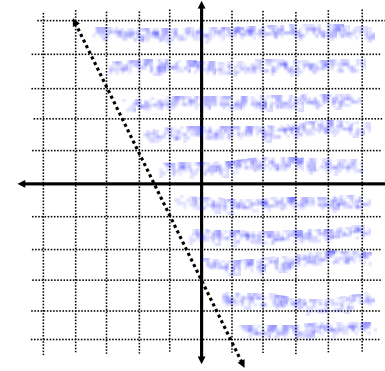   ex. graph $10x - 5y > 15$

    Your turn pg. 468
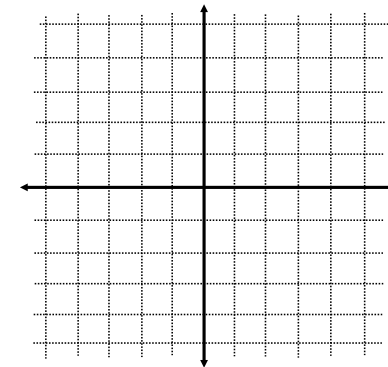
ex. What inequality is represented here?

- get equation of line

- is the boundary inclusive?

- test a point to determine direction of sign

your turn pg. 469

See example 4 pg. 470

Homefun: Pg. 472 #1ab, 2ab, 4, 5ab, 8ab, 9-11, 13