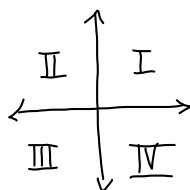


## Review of Linear Inequalities

- Look at the range and domain to decide what quadrant(s) your solution will be in. Many problems will be in quadrant I



- Are the values discrete or continuous?  
( $\in \mathbb{W}, \in \mathbb{I}$ )      ( $\in \mathbb{R}$ )

- Draw the boundary line

$$y = mx + b$$

↑ slope      ↑ y-intercept

$$2x + 5y = 10$$

find your x and y-intercepts.

Watch out for vertical lines ( $x = ?$ )  
horizontal lines ( $y = ?$ )

- Dashed line or solid line for the boundary line  
( $< >$ )      ( $\leq \geq$ )

- Shade the half plane that satisfies the inequality

$$y \geq \text{stuff} \quad (\text{shade above})$$

$$y \leq \text{stuff} \quad (\text{shade below})$$

$$2x + 5y \leq 10 \quad (\text{test something like } (0,0))$$

If (0,0) satisfies the inequality  
then shade the half-plane  
containing (0,0)

- system of inequalities

↳ The overlap of the shaded regions is called the feasible region.

## REVIEW for QUIZ

- Read over p321 - 322
- Do p323