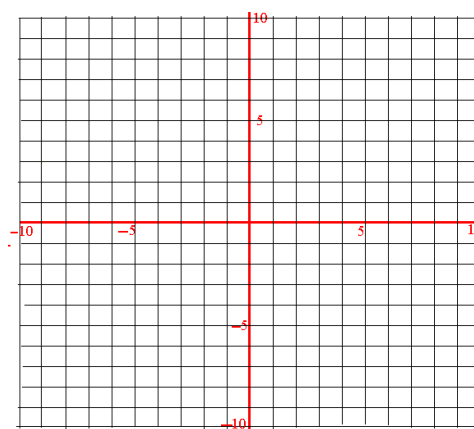


6-6

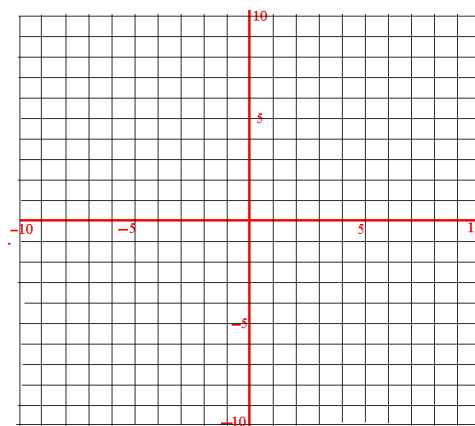
Graphing Systems of Linear Inequalities

Solution Set - Set of ALL ordered pairs that satisfies all the inequalities
Represented by the intersection, or overlap, of the graphs

Example 1) $y < 2x + 2$
 $y \geq -x - 3$



Example 2) $y \geq -3x + 1$
 $y \leq -3x - 2$



Real World Problems

Example 3) A college service organization requires that its members maintain **at least** a 3.0 GPA, and volunteer **at least** 10 hours a week. Graph these requirements.

1. Define Variables

2. Set up system of inequalities

3. Graph Inequalities



He has been offered another job as a library assistant for \$6.00/hour.

Because of school, his parents allow him to work **at most** 15 hours per week.

How many hours can Joe mow grass and work at the library and still make

at least \$60.00 per week?

1. Define Variables

2. Set up system of inequalities

3. Graph Inequalities



