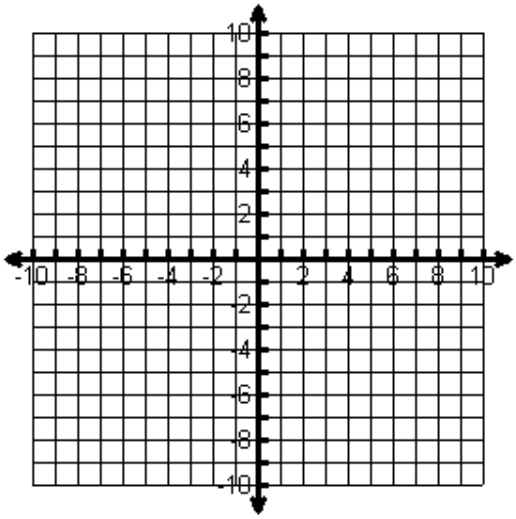
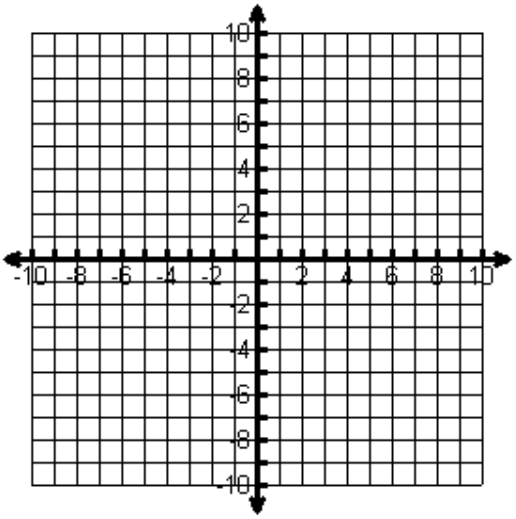
Name: _____ Date: _____

Graphing Systems of Inequalities Homework

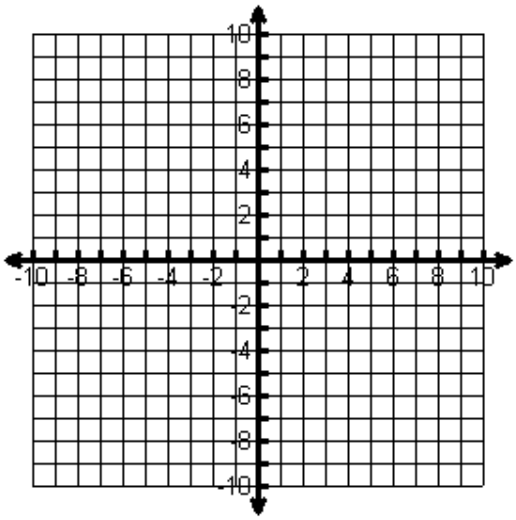
1. $2x + y \geq 5$



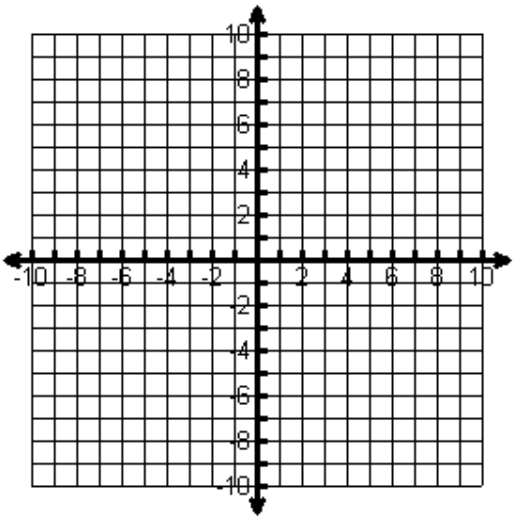
2. $2y - x < 6$



3. $x + y > 2$
   $2x - y > 1$



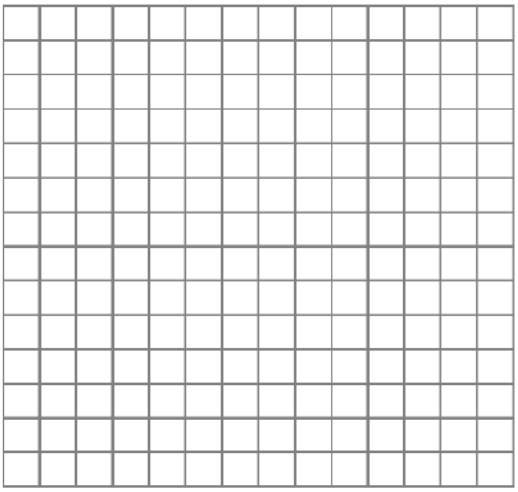
4. $3x + y \geq -3$
   $x + 2y \leq 4$



5. Members of a school booster club want to sell at least 10 school jackets and at least 21 caps during a fundraiser to cover their regular club expenses. The club will make $14 for every jacket sold and $2 for every cap sold. The club also wants the total amount of money earned to be at least $300.

Part A Write a system of inequalities that shows how many jackets and caps the club members need to sell to meet the conditions described above. Let x represent the number of school jackets sold and let *y* represent the number of caps sold.

Part B Graph the system of inequalities from Part A, shading in the region that represents the possible solutions to the system of equations. Locate and label the point (14, 35) on the graph.



Part C Will the club meet its goal of earning $300 if it sells 14 jackets and 35 caps? Explain how you know. How much above or below its goal will the club be?