Name_____

Systems of Inequalities

Date_____ Period_____

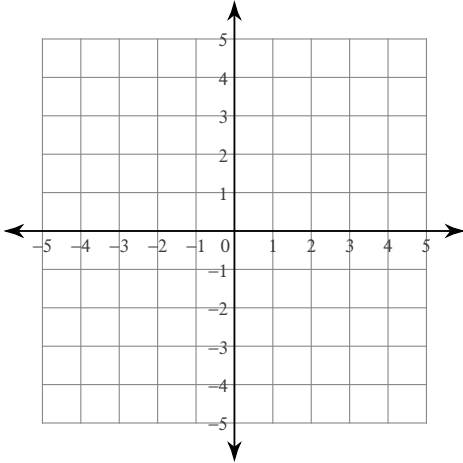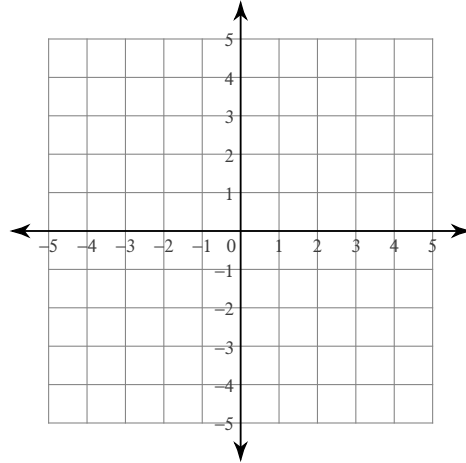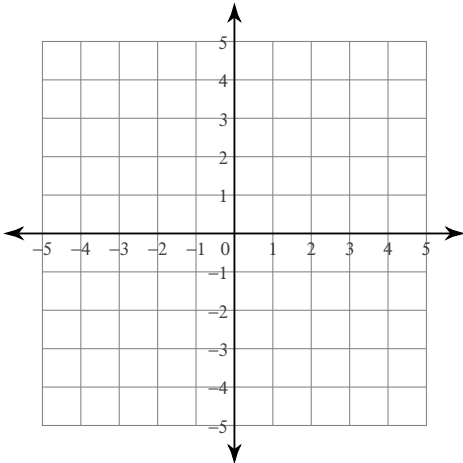**Sketch the solution to each system of inequalities.**

1) $y > 4x - 3$
   $y \geq -2x + 3$

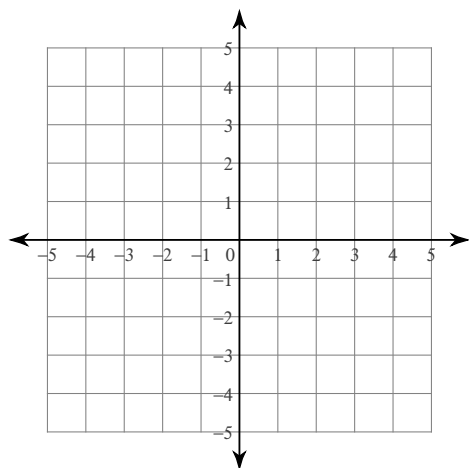2) $y \geq -5x + 3$
   $y > -2$

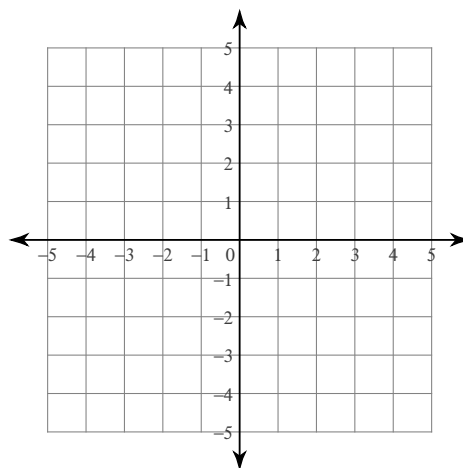

3) $y < 3$
   $y \leq -x + 1$

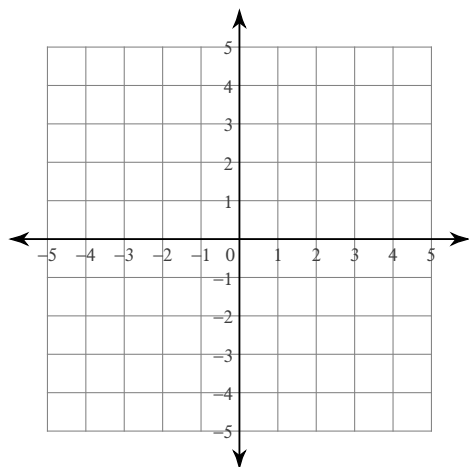

4) $y \geq x - 3$
   $y \geq -x - 1$
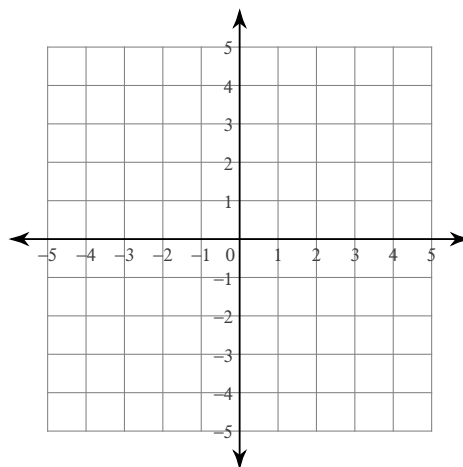
5) $x \le -3$
   $5x + 3y \ge -9$

6) $4x - 3y < 9$
   $x + 3y > 6$

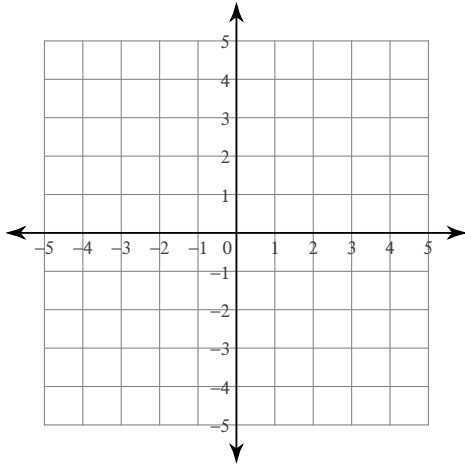7) $x + y > 2$
   $2x - y > 1$
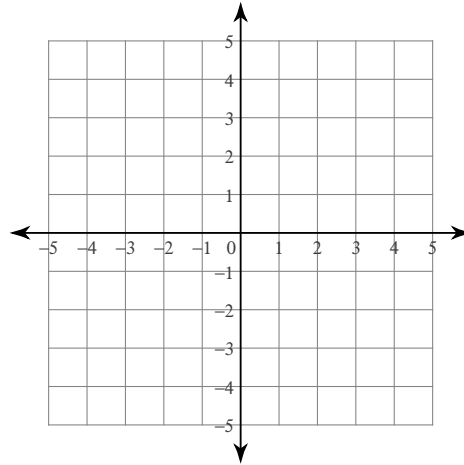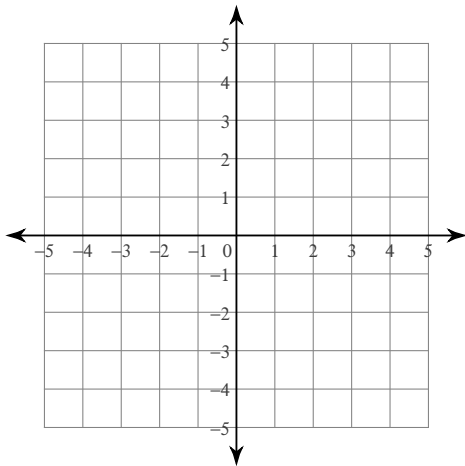
8) $x + y \ge 2$
   $4x + y \ge -1$
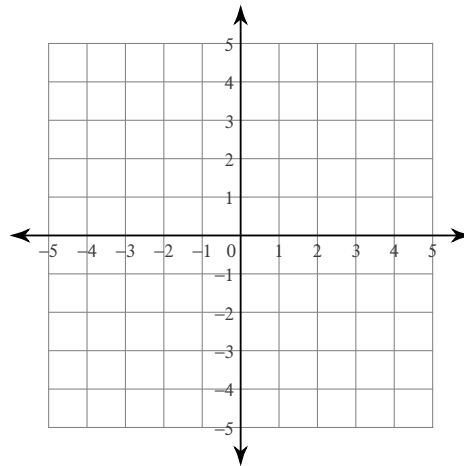
9) $4x + 3y > -6$
   $x - 3y \le -9$

10) $y < -2$
    $x + y \ge 1$

11) $3x + y \ge -3$
    $x + 2y \le 4$

12) $x + y \ge -3$
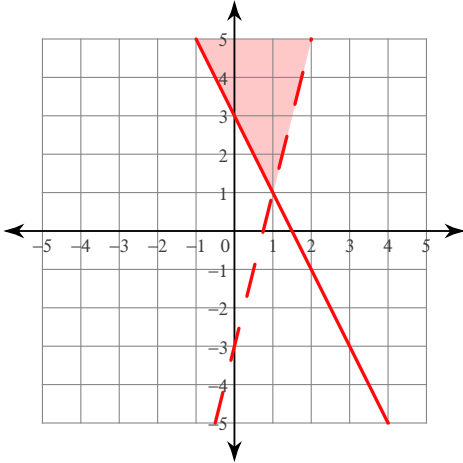 $x + y \le 3$

Critical thinking questions:

13) State one solution to the system
    $y < 2x - 1$
    $y \ge 10 - x$

14) Write a system of inequalities whose solution is the set of all points in quadrant I not including the axes.
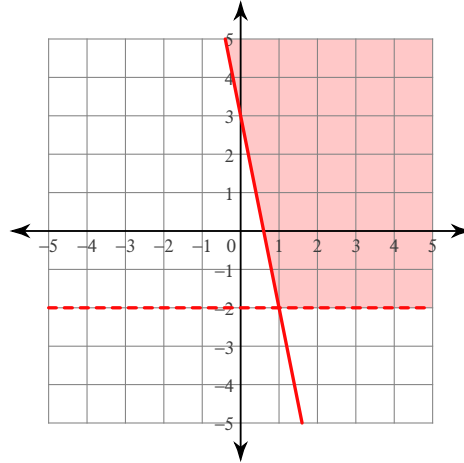
Name_____

Systems of Inequalities

Date_____ Period____

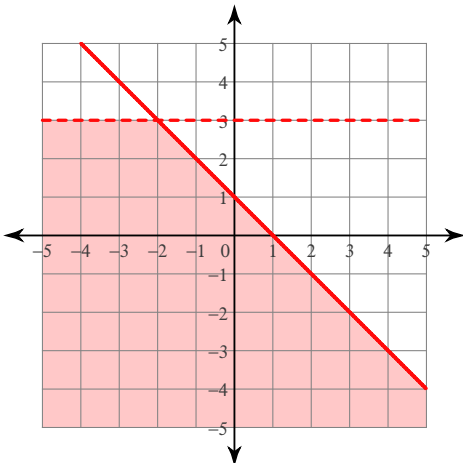**Sketch the solution to each system of inequalities.**

1) $y > 4x - 3$
    $y \geq -2x + 3$

2) $y \geq -5x + 3$
    $y > -2$

3) $y < 3$
    $y \leq -x + 1$
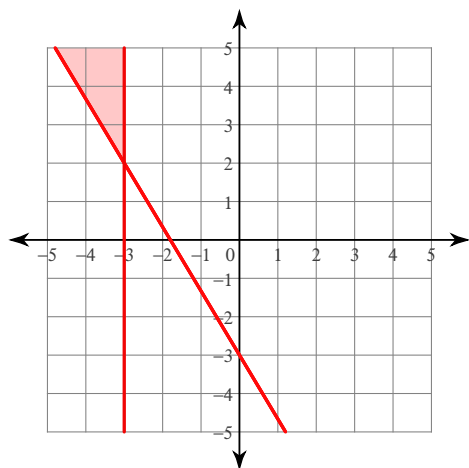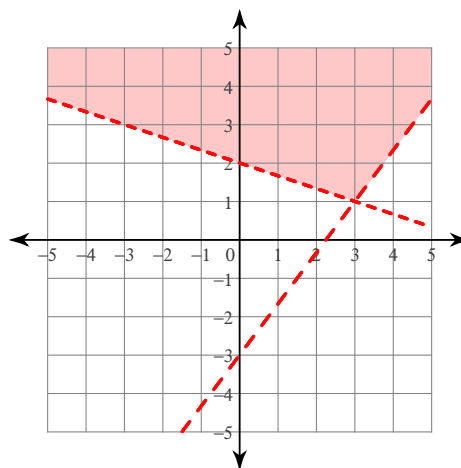
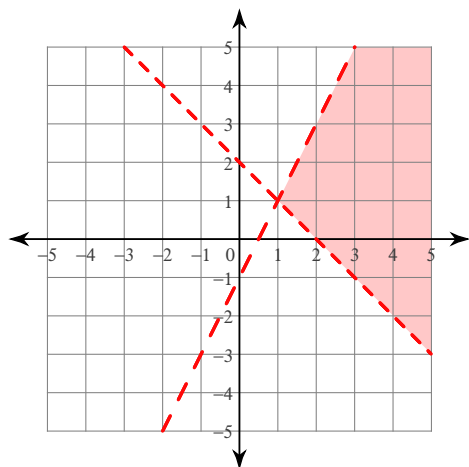4) $y \geq x - 3$
    $y \geq -x - 1$

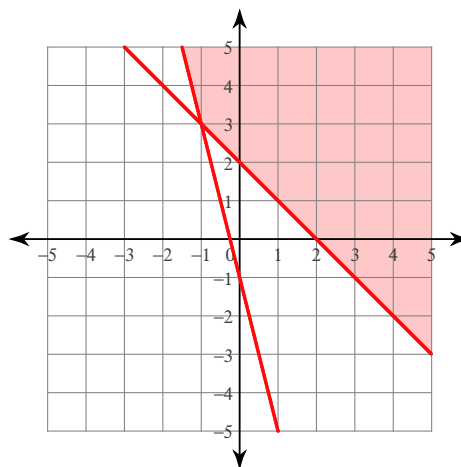5) $x \le -3$
   $5x + 3y \ge -9$

6) $4x - 3y < 9$
   $x + 3y > 6$
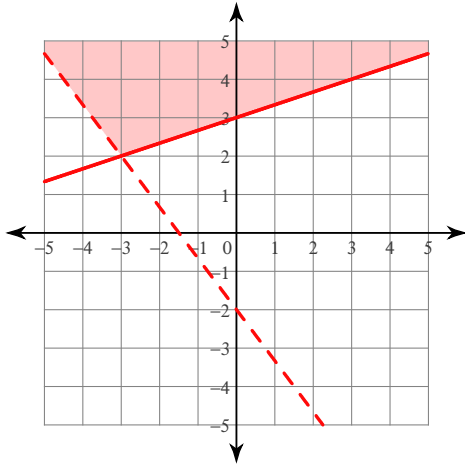

7) $x + y > 2$
   $2x - y > 1$

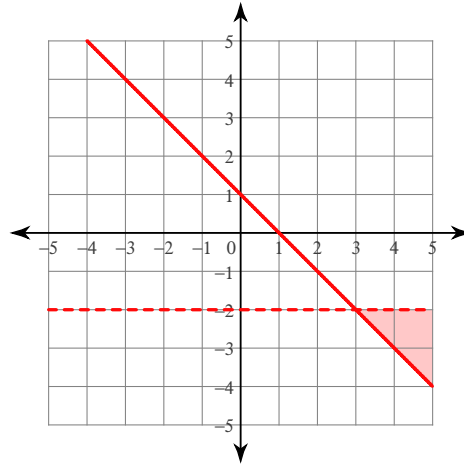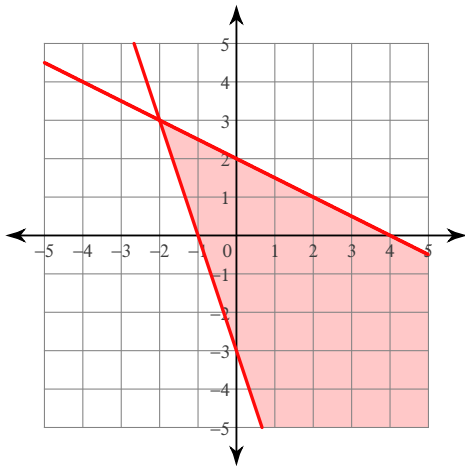

8) $x + y \ge 2$
   $4x + y \ge -1$
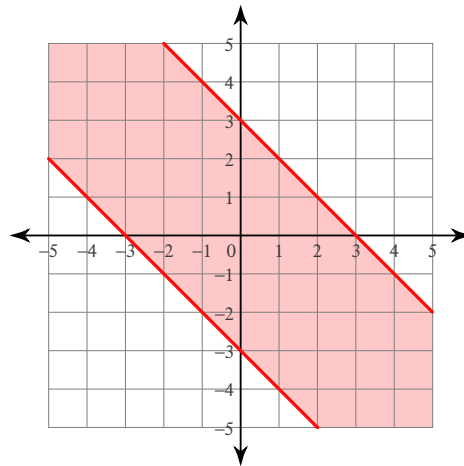
9) $4x + 3y > -6$
   $x - 3y \le -9$

10) $y < -2$
    $x + y \ge 1$

11) $3x + y \ge -3$
    $x + 2y \le 4$

12) $x + y \ge -3$
    $x + y \le 3$

Critical thinking questions:

13) State one solution to the system
    $y < 2x - 1$
    $y \ge 10 - x$

    Many solutions. Ex: $(10, 10)$ or $(5, 8)$

14) Write a system of inequalities whose solution is the set of all points in quadrant I not including the axes.

    $x > 0, \quad y > 0$