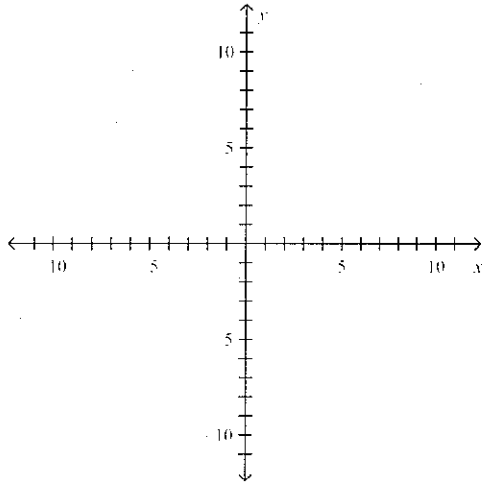
Name: _____ Class: _____ Date: _____

Study Guide 3.1-3.3

Solve the system by graphing. Show all work!

1. $2x + y = -5$
   $-x + 3y = 6$



Use the ELIMINATION METHOD to determine if the linear system has *one solution*, *infinitely many solutions*, or *no solution*. Show all work!

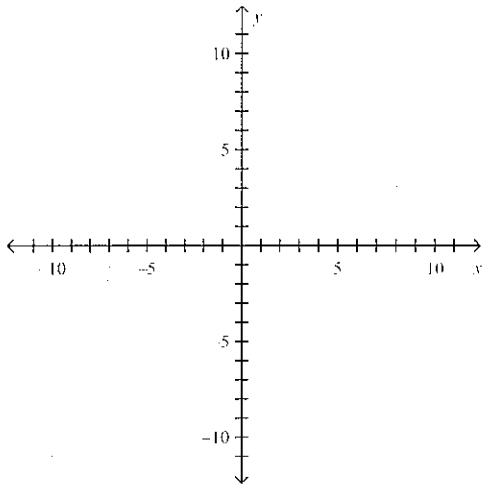
2. $\frac{1}{2}x + 5y = \frac{1}{3}$
   $-\frac{3}{2}x - 15y = -1$

3. $4x + 5y = 6$
   $3x - 5y = 22$

4. $4x - 2y = 9$
   $-4x + 2y = -12$

Sketch the graph of the system of linear inequalities. Show all work!

5. $y > x + 8$
   $y \leq -3x$



Use the SUBSTITUTION METHOD to solve the linear system. Show all work!

6. $y = -3x + 11$
   $y = \frac{1}{2}x + 4$

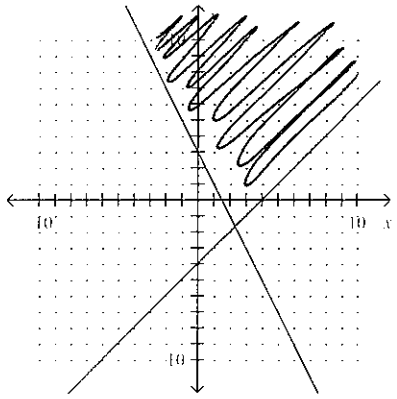
7. $x - 2y = -2$
   $3x + y = -20$

8. $6x + y = -6$
   $4x + 3y = 17$

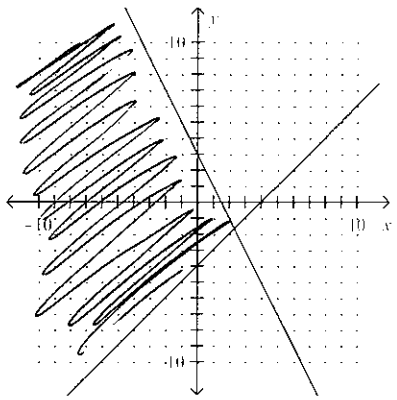
Determine the solution of the system of inequalities.

____ 9. $y \leq -2x + 3$
$-x + y \geq -4$

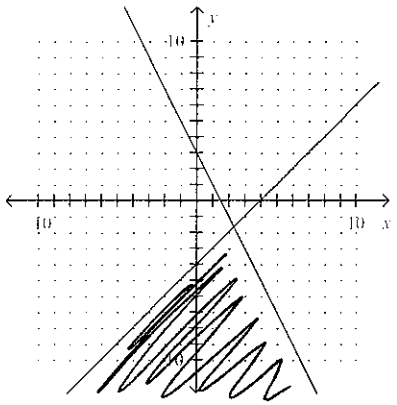
a.



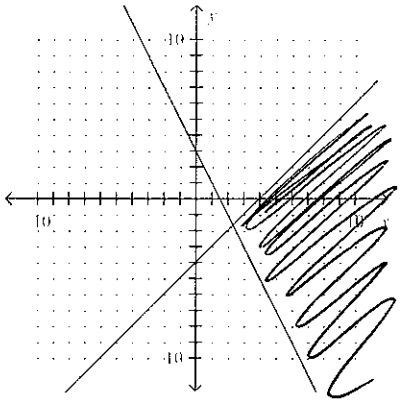
c.



b.

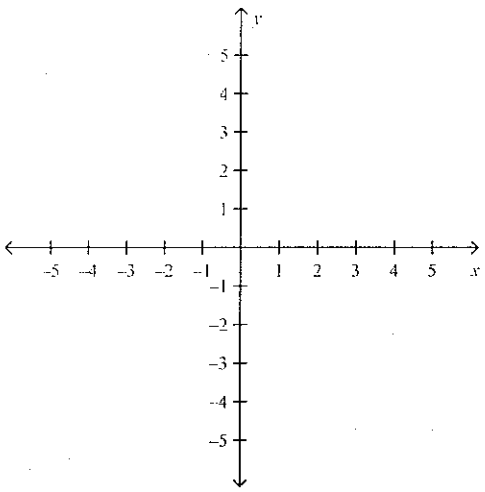


d.



Sketch the graph of the system of linear inequalities. Show all work!

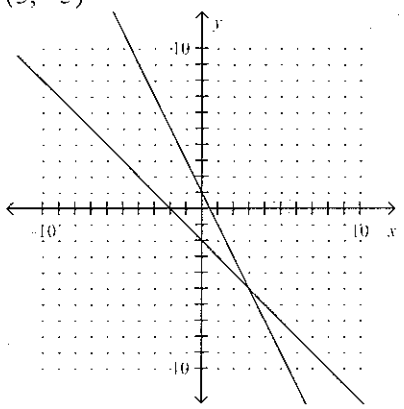
10. $x > 1$
$y \geq -5$



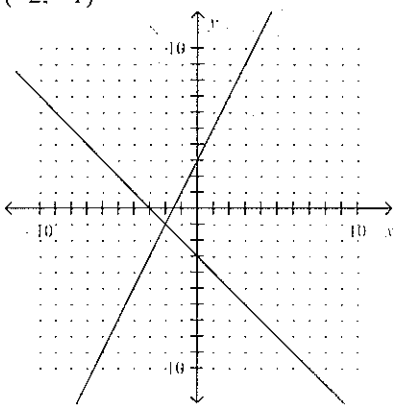
Graph the linear system and estimate the solution. Show all work!

____ 11. $x + y = 5$
$2x + y = 7$

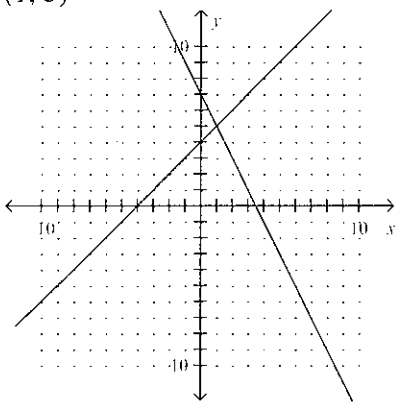
a. (3, –5)



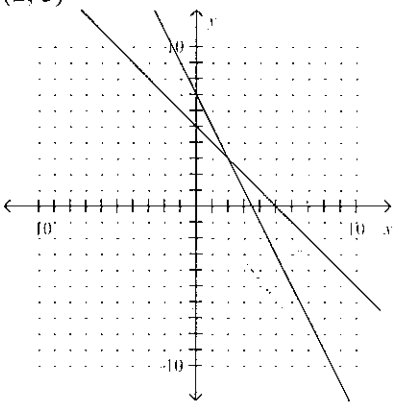
c. (–2, –1)



b. (1, 5)



d. (2, 3)



Sketch the graph of the system. Estimate the solution.

12. $3x - 2y = -7$
$x + y = 1$