Name: Period: Systems **5C**

Ready, Set, Go!

Ready

For each of the systems of inequalities, determine if the given coordinates are solutions to the system.

1. $\begin{cases} y \le 3x - 5 \\ y \ge x + 2 \end{cases}$

a. (6 , 10)

b. (1 , 4)

c. (8 , 15)

2. $\begin{cases} y > -2x + 9 \\ y \ge 5x - 6 \end{cases}$

a. (-2 , -5)

b. (-1 , 12)

c. (5 , 0)

3. $\begin{cases} y < -\frac{1}{2}x + 9 \\ y > 6x - 10 \end{cases}$

a. (-2 , -5)

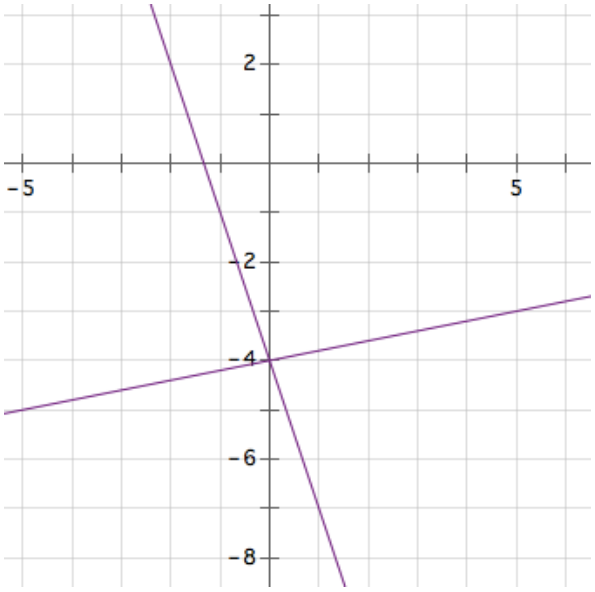
b. (7 , 3)

c. (-8 , 10)

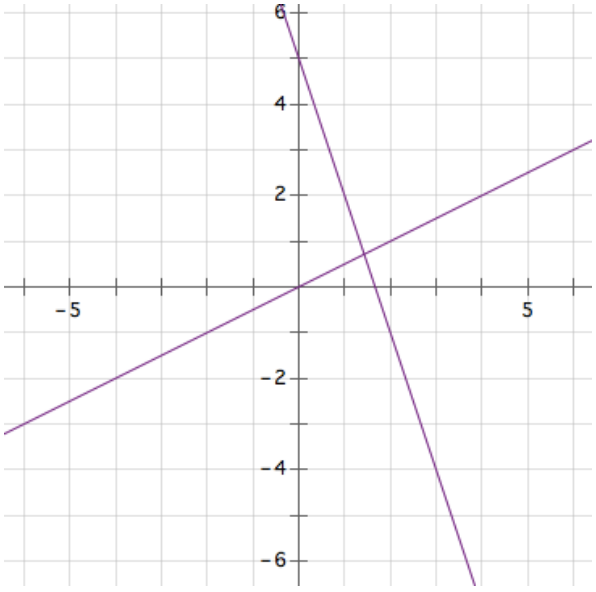
Set

The lines connected with the system of inequalities are provided. Shade both inequalities on the graph to indicate the solution to the system of inequalities.

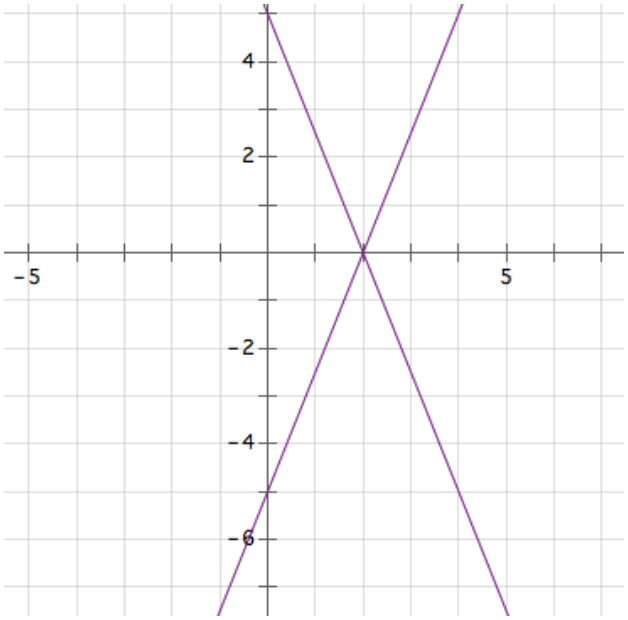
4. $\begin{cases} y \le \frac{1}{5}x - 4 \\ y \ge -3x - 4 \end{cases}$



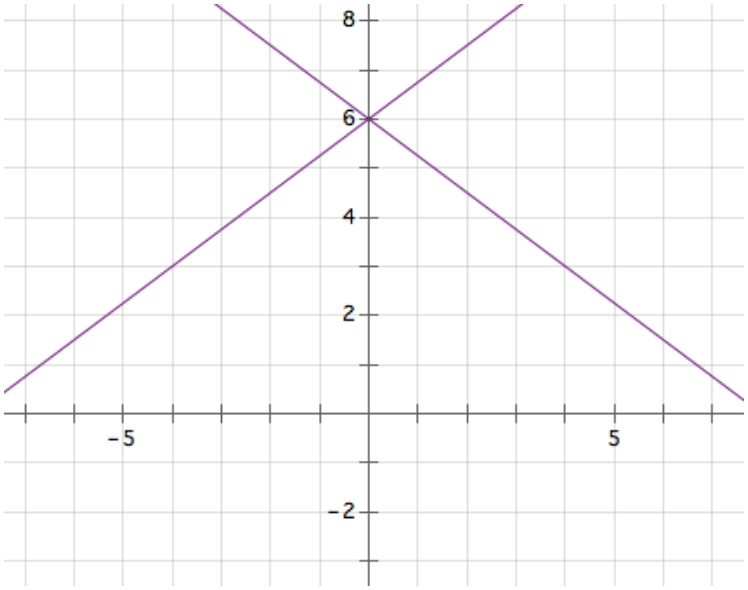
5. $\begin{cases} y \ge -3x + 5 \\ y \le \frac{1}{2}x \end{cases}$



6. $\begin{cases} 5x - 2y \le 10 \\ 5x + 2y \le 10 \end{cases}$



7. $\begin{cases} 3x + 4y \le 24 \\ -3x + 4y \le 24 \end{cases}$



Find the solutions to the system of equations using substitution.

8. $\begin{cases} y = -3x + 2 \\ y = x - 6 \end{cases}$

9. $\begin{cases} y = 5x - 2 \\ 2x + y = 19 \end{cases}$

10. $\begin{cases} x = 2y \\ 3x - 4y = 10 \end{cases}$

11. $\begin{cases} 2x + y = 3 \\ -2x + 3y = 9 \end{cases}$

Go

Find the slope of the line that goes through each pair of points.

12. (3,7) and (5, 10)

13. (-1, 4) and (3,3)

14. (0,0) and (-2, 5)

15. (-1, -5) and (-4, -5)