**Algebra 2 – Unit 3 Test Recovery**
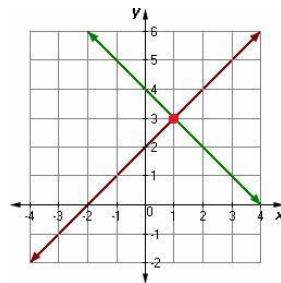
1. What is a system of equations?

2. How many solutions does coinciding lines have?

3. The graph of parallel lines has how many solutions?

4. What are the three ways to solve a system of equations.

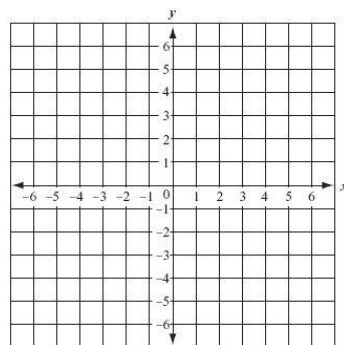5. Determine the solution to the system of equation to the right:



6. If one of the solutions of the system below is x=-3, then what does y equal?
$$\begin{cases} 5x - 5y = -25 \\ 2x + 10y = 14 \end{cases}$$
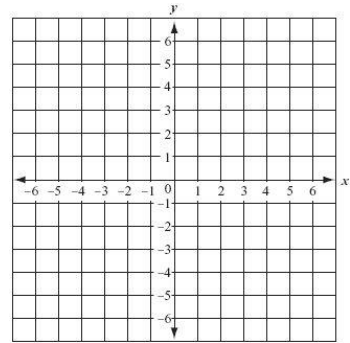
7. Solve the system of equations by graphing:
$$\begin{cases} y = -x - 3 \\ y = \frac{3}{4}x + 4 \end{cases}$$

8. Solve the system of equations by graphing:
$$\begin{cases} y = \frac{2}{3}x - 2 \\ 8x - 3y = -12 \end{cases}$$



9. Solve the system of equations:
$$\begin{cases} y = 3x + 20 \\ y = x + 10 \end{cases}$$

10. Solve the system of equations:
$$\begin{cases} y = 4x - 5 \\ y = -7x + 6 \end{cases}$$
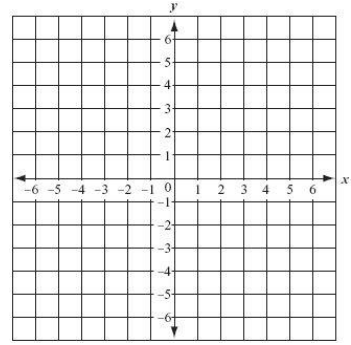
11. Solve the system of equations:
$$\begin{cases} -3x - 10y = 23 \\ 3x - 3y = 3 \end{cases}$$

12. Solve the system of equations:
$$\begin{cases} x - 5y = -25 \\ 5x + 15y = -5 \end{cases}$$
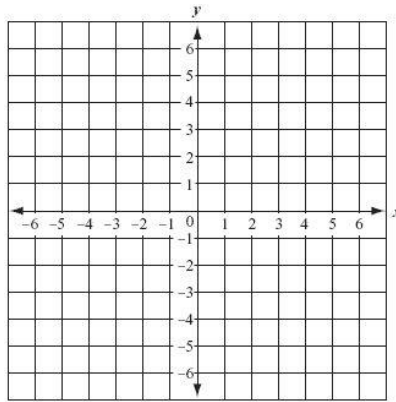
13. Solve the system of inequalities:

$$\begin{cases} y > -2x + 1 \\ y < -\dfrac{1}{2}x - 2 \end{cases}$$

**Solve each of the following system by the specified way, remember to express each of your answers as an ordered pair if possible:**

Solve the following system of equations by graphing:

$$\begin{cases} y = x - 4 \\ y = -5x + 2 \end{cases}$$

14. Solve the following system of equation by substitution:

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

15. Solve the following system of equation by elimination:

$$\begin{cases} 2x - 9y = 17 \\ -6x + 9y = 3 \end{cases}$$

16. Solve the following system of equations by ANY method:
$$\begin{cases} -2x - 3y = 0 \\ -8x - 5y = 0 \end{cases}$$

17. Solve the system of linear inequalities:
$$\begin{cases} y \le 3x + 3 \\ y \ge 3x + 1 \end{cases}$$