

Name: \_\_\_\_\_

## Solving Linear Systems by Graphing

- 1) 1) Draw the graph of  $y = 2x + 1$  and the graph of  $y = 7 - x$   
 2) Use your graph to write down the solution of the equation  $2x + 1 = 7 - x$
- 2) 1) Draw the graph of  $y = 3x - 1$  and the graph of  $y = x + 5$   
 2) Use your graph to write down the solution of the equation  $3x - 1 = x + 5$
- 3) Solve each system of equations by graphing.

1) 
$$\begin{cases} x = -2 \\ y = 3 \end{cases}$$

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

3) 
$$\begin{cases} y = 4x + 1 \\ y = 3x \end{cases}$$

4) 
$$\begin{cases} y = -\frac{1}{2}x \\ y = 3x + 7 \end{cases}$$

5) 
$$\begin{cases} x = 5 \\ y = x \end{cases}$$

6) 
$$\begin{cases} y = x + 2 \\ y = 2x - 1 \end{cases}$$

7) 
$$\begin{cases} y = -3x - 2 \\ 2x - y = 2 \end{cases}$$

8) 
$$\begin{cases} y = \frac{1}{2}x - 3 \\ x - y = 6 \end{cases}$$

9) 
$$\begin{cases} x = -1 \\ y = x - 2 \end{cases}$$

10) 
$$\begin{cases} y = -x - 1 \\ y = x - 1 \end{cases}$$

11) 
$$\begin{cases} y = 2 \\ x - y = 3 \end{cases}$$

12) 
$$\begin{cases} x = -3 \\ y = x + 4 \end{cases}$$

13) 
$$\begin{cases} x = 2 \\ x + 2y = 4 \end{cases}$$

14) 
$$\begin{cases} x - y = 6 \\ 2x + y = 3 \end{cases}$$

15) 
$$\begin{cases} 2x + 3y = 12 \\ 4x + y = 4 \end{cases}$$

- 4) Use a graph to solve the simultaneous equations:

$$\begin{cases} x + 2y = 10 \\ 3x + y = 10 \end{cases}$$