

## Unit 5 Day 15 Homework - Which Method Should You Use??

Choose any method you want to use to solve the systems of equations. Use the graph paper on the back if you choose graphing!

1.  $y = 3x + 2$       **Graph or SUBstitution**  
 $y = -4x + 2$

$$3x + 2 = -4x + 2$$

$$7x + 2 = 2$$

$$7x = 0$$

$$\boxed{x = 0}$$

$$y = 3(0) + 2$$

$$y = 0 + 2$$

$$\boxed{y = 2}$$

$$\boxed{(0, 2)}$$

3.  $y = \boxed{5x - 7}$       **SUBstitution**  
 $-4x + y = -1$

$$-4x + 5x - 7 = -1$$

$$x - 7 = -1$$

$$\begin{array}{r} x - 7 = -1 \\ +7 \quad +7 \\ \hline \end{array}$$

$$\boxed{x = 6}$$

$$y = 5(6) - 7$$

$$y = 30 - 7$$

$$\boxed{y = 23}$$

$$\boxed{(6, 23)}$$

5.  $4x - 7y = 10$       **SUBstitution**  
 $y = \boxed{x - 7}$

$$4x - 7(x - 7) = 10$$

$$4x - 7x + 49 = 10$$

$$-3x + 49 = 10$$

$$-3x = -39$$

$$\boxed{x = 13}$$

$$y = 13 - 7$$

$$\boxed{y = 6}$$

$$\boxed{(13, 6)}$$

**Elimination**

2.  $(x + 3y = 1) \Rightarrow -2x - 6y = -2$   
 $5x + 6y = 14 \quad + \quad 5x + 6y = 14$

$$4 + 3y = 1$$

$$3y = -3$$

$$\boxed{y = -1}$$

$$3x = 12$$

$$\boxed{x = 4}$$

$$\boxed{(4, -1)}$$

4. **Elimination**  
 $(x + y = 4) \Rightarrow -x - y = -4$   
 $-3x + y = -8 \quad + \quad -3x + y = -8$

$$3 + y = 4$$

$$\boxed{y = 1}$$

$$-4x = -12$$

$$\boxed{x = 3}$$

$$\boxed{(3, 1)}$$

6.  $y = 4$       **Graphing**  
 $x = -3$



