

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

### WARMING UP WITH THINGS YOU CAN DO TO EQUATIONS:

Move the  $x$ 's and  $y$ 's so that they are on the left side of the equation:

$$4x = 2y + 3 \quad \underline{\hspace{10em}} \quad \text{Answer}$$

$$5 + x = 3y - 5x \quad \underline{\hspace{10em}} \quad \text{Answer}$$

Rearrange the  $x$ 's and  $y$ 's so that the  $x$ 's come before the  $y$ 's:

$$3y + 2x = 9 \quad \underline{\hspace{10em}} \quad \text{Answer}$$

$$3y - 2x = 9 \quad \underline{\hspace{10em}} \quad \text{Answer}$$

Multiply the following equations by 3 (make sure to write 3 in the multiplication box provided):

$$4x + 2y = 7 \quad \boxed{\hspace{1em}} \quad \underline{\hspace{10em}} \quad \text{Answer}$$

$$5x = 3y - 9 \quad \boxed{\hspace{1em}} \quad \underline{\hspace{10em}} \quad \text{Answer}$$

Add the following equations together:

$$\begin{array}{r} 11x + 8y = 3 \\ 7x + 4y = 9 \\ \hline \end{array}$$

$$\begin{array}{r} 5x - 3y = 12 \\ -2x - 8y = 7 \\ \hline \end{array}$$

\_\_\_\_\_   
 Answer

\_\_\_\_\_   
 Answer

### SOLVING SIMULTANEOUS EQUATIONS USING THE ELIMINATION METHOD

Example:  $4y + 3x = 11$   $\longrightarrow$   $3x + 4y = 11$   
 $3y = 8 - 2x$   $\longrightarrow$   $2x + 3y = 8$

$$3x + 4y = 11 \quad \boxed{\hspace{1em}}$$

$$2x + 3y = 8 \quad \boxed{\hspace{1em}} \quad \underline{\hspace{10em}}$$

$$x = \underline{\hspace{2em}}$$

$$3x + 4y = 11 \quad \boxed{\hspace{1em}}$$

$$2x + 3y = 8 \quad \boxed{\hspace{1em}} \quad \underline{\hspace{10em}}$$

$$y = \underline{\hspace{2em}}$$

Answer: (\_\_\_\_\_, \_\_\_\_\_)

**SOLVE THE FOLLOWING SIMULTANEOUS EQUATIONS USING THE ELIMINATION METHOD:**

1.)

$2x - 3y = 0$

$3x - 2y = 5$

\_\_\_\_\_

$x = \underline{\hspace{2cm}}$

$2x - 3y = 0$

$3x - 2y = 5$

\_\_\_\_\_

$y = \underline{\hspace{2cm}}$

Answer: (\_\_\_\_\_, \_\_\_\_\_)

2.)

$2x - y = 2$

$2x + 3y = 22$

\_\_\_\_\_

$x = \underline{\hspace{2cm}}$

$2x - y = 2$

$2x + 3y = 22$

\_\_\_\_\_

$y = \underline{\hspace{2cm}}$

Answer: (\_\_\_\_\_, \_\_\_\_\_)