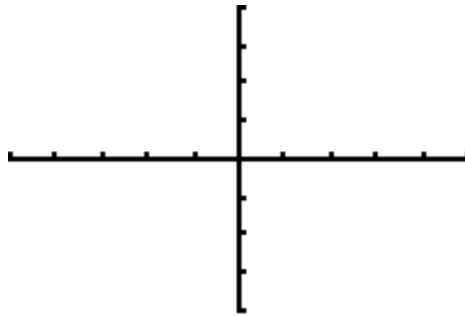


MONTGOMERY COLLEGE
Department of Mathematics
Rockville Campus

MA096 KATIRAIE Worksheet for Sections (3.1, 3.2, and 3.8)

NAME _____

1. Solve the following system of equations using graphing method. $\begin{cases} x + y = 3 \\ x - y = 1 \end{cases}$



2. Solve the following system of equations using substitution method.

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

3. Solve the following system of equations using Elimination method.

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

4. Solve the following system of equations using Elimination method.

$$\begin{cases} 3x - 5y = 4 \\ 5x + y = 2 \end{cases}$$

5. Twice a number minus a second number equals 5.
The Sum of the two numbers is 16. Find the two numbers.

6. A student takes out two loans to help pay for college. One loan is at 8% simple interest, and the other is at 9% simple interest. The total amount borrowed is \$3500, and the interest after 1 year for both loans is \$294. Find the amount of each loan.

(Hint☺ 8% = 0.08 and 9% = 0.09 Now Set up a system of equations, and Multiply one of the equations by 100 to get rid of decimals.)

7. The sum of two numbers is 25, and their difference is 11. Find the two numbers.

8. A boat travels downstream 150 miles in 5 hours. The return trip takes 7 hours and 30 minutes (7.5 hours). Find the speed of the boat without a current and the speed of the current.

Hints ☺

Let x = speed of the boat without the current, and
 y = speed of the current.

Distance = Speed * Time