ALGEBRA 2
CHAPTER M REVIEW

Name _____

Use each matrix to solve for the missing variables.

1) $\begin{bmatrix} 12 & -8 & z \\ 3y-5 & 15 & -1 \\ 0 & 0.5x & 8 \end{bmatrix} = \begin{bmatrix} 12 & -8 & (x+y) \\ 22 & 15 & -1 \\ 0 & -9 & 8 \end{bmatrix}$

2) $\begin{bmatrix} 2x-5y \\ x+3y \end{bmatrix} = \begin{bmatrix} 25 \\ 7 \end{bmatrix}$

Use the matrices shown below to find the following operations.

$A = \begin{bmatrix} 6 & -1 \\ 0 & 5 \end{bmatrix}$ $B = \begin{bmatrix} -1 & 2 \\ -3 & 4 \end{bmatrix}$ $C = \begin{bmatrix} 4 & -2 & -1 \\ 8 & 0 & -6 \\ -1 & -3 & 7 \end{bmatrix}$ $D = \begin{bmatrix} 2 & 0 \\ 2 & -5 \\ 2 & -8 \end{bmatrix}$

3)   A + B

4)   B – A

5)   -5D

6)   AB

7)   CD

Using the same matrices from above, determine the determinants for the following.

8) | A | 9) | B | 10) | C |

Use Cramer's Rule to find the solutions to the system of equations.

11) $4x - 3y = 6$ 12) $x - 8y = 1$
         $2x + 5y = -10$ $5y + 5x = 95$

13) $x + 3y - z = 5$
         $2x + 5y - z = 12$
         $x - 2y - 3z = -13$