Name: _____   Date: _____

Math 1050 PRACTICE Quiz (12.2-12.4)

1. (2 points) Simplify: $4\begin{bmatrix} -1 & 2 \\ 3 & -4 \end{bmatrix} - 2\begin{bmatrix} 2 & 4 \\ 6 & -8 \end{bmatrix}$

2. (4 points) Let $A = \begin{bmatrix} 1 & 2 & 3 & 4 \\ -1 & 0 & -4 & 3 \\ 2 & 2 & 1 & -1 \end{bmatrix}$. Some row operation(s) have been applied to A to obtain

$\begin{bmatrix} 1 & 2 & 3 & 4 \\ -1 & 0 & -4 & 3 \\ 0 & -2 & x & y \end{bmatrix}$. What are the values of x and y?

3. (5 points) Using Cramer's Rule to find x, where $x = \frac{D_x}{D}$, for the following system of equations:

$$\begin{cases} x + 4y - 3z = 0 \\ 3x - y + 3z = 0 \\ x + y + 6z = 0 \end{cases}$$

4. (7 points) Let $A = \begin{bmatrix} 1 & 0 & 2 \\ -1 & 2 & 3 \\ 1 & -1 & 0 \end{bmatrix}$. Find inverse, A^{-1}.

5. (7 points) Solve the following system of equations using matrices (row operations). **No points will be given if the solution is found through trial and error or using another method.**

$$\begin{cases} x - y + z = -4 \\ 2x - 3y + 4z = -15 \\ 5x + y - 2z = 12 \end{cases}$$