Math 002B Assignment II Name_____

DIRECTIONS To receive full credit, you must provide complete legible solutions to the following problems in the space provided. Transfer all your answers to the space provided on the test paper.

Evaluate the determinant of the given matrix by cofactor expansion along the row/column.

1. $\mathbf{A} = \begin{bmatrix} 3 & 1 & 1 \\ 1 & 0 & 1 \\ 1 & 1 & 0 \end{bmatrix}$

a. along the first row.

b. Along the second column

2. Use Roe Echelon Form to find the determinant of a the given matrix

$$\mathbf{B} = \begin{bmatrix} 1 & 1 & 1 \\ 2 & 2 & 1 \\ 2 & 1 & 0 \end{bmatrix}$$

3. Find the Adjoint of matrix **B** in the previous problem.

4. Use Cramer's Rule to solve the system of equations then find the number of Multiplication additions required to find the solution.

$$\begin{cases} x+2y+2z=3 \\ 2x+y+z=3 \\ x-y-z=0 \end{cases}$$

5. Use the Adjoint of the associative matrix of the given system below to find the inverse then use it to solve the system.

$$x-y+z=3$$
$$2x-y+z=5$$
$$3x-2y+2z=8$$