Math 104 - Quiz 15   Name_____

1. (4 pts.) Use Gaussian elimination to find all solutions to the following
    system of linear equations.

$$x - 3y + z = 5$$
$$-2x + 7y - 6z = -9$$
$$x - 2y - 3z = 6$$

2. (2 pts.) $\begin{bmatrix} 1 & 2 \\ 1 & 3 \end{bmatrix}$ $\begin{bmatrix} 3 & -2 \\ -1 & 1 \end{bmatrix}$ =

3. (2 pts.) Give the system of linear equations that is equivalent to the
    following matrix equation.

$$\begin{bmatrix} 4 & 11 \\ -2 & 0 \end{bmatrix} \begin{bmatrix} x \\ y \end{bmatrix} = \begin{bmatrix} 6 \\ 7 \end{bmatrix}$$

4. (2 pts.) Write the following system of linear equations in matrix form.

$$10x - 4y = 15$$
$$7x - 2y = 8$$