Name:

1. Find the inverse of the following 3×3 matrix using Gauss-Jordan elimination

$$\begin{bmatrix} 1 & -3 & 5 \\ 2 & -5 & 7 \\ 3 & -7 & 10 \end{bmatrix}$$

2. Solve the following system using the method of LU decomposition

$$x + 2y + 4z = 1$$

$$2x + 5y + 10z = 3$$

$$3x + 8y + 17z = 6$$