MTH 161, Quiz #9, Spring 2021   Name_____

Instructions: Show all work. Use exact answers unless specifically asked to round. Answer all parts of each question.

1. Multiply the matrices $A = \begin{bmatrix} 1 & -2 & 1 \\ 0 & 5 & 3 \end{bmatrix}, B = \begin{bmatrix} -3 & 4 \\ 5 & -7 \\ 2 & -2 \end{bmatrix}$ by hand.

2. Find the inverse of $C = \begin{bmatrix} 4 & 5 \\ 2 & 3 \end{bmatrix}$ by hand.

3. Use any method to solve the system $\begin{cases} x + y + z = 0 \\ 2x - y + z = -1 \\ -x + 3y - z = -8 \end{cases}$.