

3.6 REVIEW - WARM - UP

1. What is m_{23} in matrix M ? $M \Rightarrow$ $\begin{bmatrix} 1 & 3 & 7 & 9 \\ -8 & 6 & 1 & 17 \end{bmatrix}$ (2×4)

$m_{23} = 1$

2. Represent the system with a matrix. $\begin{cases} 3x + 4y + 6z = 10 \\ -2x + 5z = 11 \\ -7x + 2z - 13 = y \end{cases}$

$\begin{matrix} \text{"x"} & \text{"y"} & \text{"z"} \\ \begin{bmatrix} 3 & 4 & 6 \\ -2 & 0 & 5 \\ -7 & -1 & 2 \end{bmatrix} & \begin{bmatrix} 10 \\ 11 \\ 13 \end{bmatrix} \end{matrix}$

3. What linear system of equations does this matrix represent?

$\begin{bmatrix} 2 & 5 & | & 9 \\ -2 & 10 & | & 1 \end{bmatrix}$
 "x" "y" "c"

$\begin{cases} 2x + 5y = 9 \\ -2x + 10y = 1 \end{cases}$

4. You perform row operations and the result is the matrix below. What is the solution to this linear system?

$\begin{bmatrix} 1 & 0 & 0 & | & 4 \\ 0 & 1 & 0 & | & 3 \\ 0 & 0 & 1 & | & 6 \end{bmatrix}$

$\begin{matrix} x & y & z \\ (4, 3, 6) \end{matrix}$