From the following augmented matrix, first write the system of equations that represents the augmented matrix and then create a real-world word problem that would represent these equations and their unknowns. Be creative.

$$\begin{bmatrix} 1 & 1 & 1 \\ 5 & -3 & 0 \\ 0 & 3 & 4 \end{bmatrix} \begin{bmatrix} x \\ y \\ z \end{bmatrix} = \begin{bmatrix} 100 \\ 10 \\ 290 \end{bmatrix}$$