

Problem 1. Find the reduced row echelon form for the matrix

$$\begin{pmatrix} 1 & 0 & 3 & 0 & 81 \\ 2 & 2 & 0 & 4 & 47 \\ 0 & 0 & 1 & 0 & \frac{2}{3} \\ 0 & 0 & 0 & 0 & 70 \end{pmatrix}.$$