

Gaussian EliminationProblem Sheet, Friday 04.08.2023 (Room U358)

Question 1 :

Solve the following systems of linear equations using Gaussian elimination:

$$\begin{cases} 2x + y - z + w = 4, \\ x - 3y + 2z - w = -6, \\ 3x + 2y - 2z + 4w = 5, \\ 4x + y + 3z - 2w = 5. \end{cases}$$

Question 2 :Find the inverse of the following matrix A using Gauss-Jordan elimination:

$$A = \begin{bmatrix} 2 & 1 & 3 \\ 0 & 4 & 2 \\ 1 & 0 & 5 \end{bmatrix}$$