

Problem 1. Compute the determinant of the following matrix in order to see if it is invertible:

$$A = \begin{pmatrix} 4 & 7 & 10 & 2 \\ 1 & 0 & 2 & 0 \\ 0 & 2 & 0 & 0 \\ 1 & 7 & -1 & 2 \end{pmatrix}.$$