

**EX.2.2.2.b2c, Sauer3**

Find the LU factorization of the given matrices. Check by matrix multiplication.

$$(b) \begin{pmatrix} 4 & 2 & 0 \\ 4 & 4 & 2 \\ 2 & 2 & 3 \end{pmatrix} \quad (c) \begin{pmatrix} 1 & -1 & 1 & 2 \\ 0 & 2 & 1 & 0 \\ 1 & 3 & 4 & 4 \\ 0 & 2 & 1 & -1 \end{pmatrix}$$

Note: the LU factorization for these two matrices is done using Python in CP.2.2.1.b2c.