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30 March 2023
Due Tuesday 4 April 2023

Linear Algebra, Math 2101-002
Homework set #10

1. Let

$$A = \begin{bmatrix} 1 & 1 & 2 \\ 2 & 1 & 2 \\ 2 & 1 & 4 \end{bmatrix}, \quad b = \begin{bmatrix} 2 \\ 4 \\ 6 \end{bmatrix}.$$

- (a) Compute the QR factorization of A .
- (b) compute the LU factorization of A .
- (c) Solve $Ax = b$ using two methods: first using QR, and then LU.

2. Do Exercise 5.6.5 from the book.