

Supplementary Problem to Hw 5

(Please, attach this paper to your Hw 5.)

In each of the following cases,

- I. Find an LU factorization of A , and
- II. Use this to solve $Ax = b$.
- III. Check your answer.

$$(a) A = \begin{bmatrix} 1 & 1 & 1 \\ 1 & 2 & 3 \\ 0 & 2 & 1 \end{bmatrix}, b = \begin{bmatrix} -1 \\ 0 \\ 1 \end{bmatrix}$$

$$(b) A = \begin{bmatrix} 2 & -3 & 0 \\ 4 & -5 & 1 \\ 2 & 0 & 4 \end{bmatrix}, b = \begin{bmatrix} 8 \\ 15 \\ 1 \end{bmatrix}$$