

Homework 2
Due April 14.

1. **Reading assignment:** Sections 1.5 (Triangular Factors and Row Exchanges), 1.6 (Inverses and Transposes), 2.1 (Vector Spaces and Subspaces) and 2.2 (Solving $Ax = 0$ and $Ax = b$) of the textbook.
2. Do problems 1.5.4, 1.5.18, 1.5.40, 1.5.42, 1.6.4, 1.6.8, 1.6.18, 1.6.20, 1.6.44, 1.6.48.
3. Find all possible values for a, b, c, d, e and f such that

$$\begin{pmatrix} a & 1 \\ b & 1 \\ c & 1 \end{pmatrix} \begin{pmatrix} 1 & 1 & 1 \\ d & e & f \end{pmatrix} = \begin{pmatrix} 0 & -1 & -2 \\ 1 & 0 & -1 \\ 2 & 1 & 0 \end{pmatrix}.$$