

$$A = \begin{pmatrix} 3 & -3 & -1 & 2 & -9 \\ 1 & -1 & 2 & -1 & -6 \\ 1 & -1 & 1 & 1 & -6 \\ -1 & 1 & -1 & -2 & 7 \end{pmatrix} \quad b = \begin{pmatrix} 13 \\ -6 \\ 1 \\ -3 \end{pmatrix}$$

$$A_2 = \begin{pmatrix} 3 & -3 & -1 & 2 & -9 \\ 1 & -1 & 2 & -1 & -6 \\ 3 & -3 & 3 & 3 & -18 \\ -1 & 1 & -1 & -2 & 7 \end{pmatrix}$$

$$A_3 = \begin{pmatrix} 3 & -3 & -1 & 2 & -9 \\ 0.5 & -0.5 & 1 & -0.5 & -3 \\ 1 & -1 & 1 & 1 & -6 \\ -1 & 1 & -1 & -2 & 7 \end{pmatrix}$$

$$A_4 = \begin{pmatrix} 3 & -3 & -1 & 2 & -9 \\ 1 & -1 & 2 & -1 & -6 \\ -1 & 1 & -1 & -3 & 8 \\ -1 & 1 & -1 & -2 & 7 \end{pmatrix}$$

$$E = \begin{pmatrix} 1 & -1 & 0 & 0 & -3 \\ 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 1 & 0 & -2 \\ 0 & 0 & 0 & 1 & -1 \end{pmatrix}$$