

Practice problems.

- (a) Find the characteristic polynomial and e-values of the following matrix.

$$A = \begin{bmatrix} 1 & 5 & 8 & 10 \\ 0 & 2 & 6 & 9 \\ 0 & 0 & 3 & 7 \\ 0 & 0 & 0 & 4 \end{bmatrix}.$$

- (b) Now find the characteristic polynomial and e-values of A^T , where A is the matrix from (a).

- (c) Find the characteristic polynomial and e-values of the following matrix.

$$A = \begin{bmatrix} 1 & 1 & 0 & 0 \\ 1 & 1 & 0 & 0 \\ 0 & 0 & 1 & 1 \\ 0 & 0 & 1 & 1 \end{bmatrix}.$$

- (d) How are the e-values of M related to the e-values of $2M$?