Assignment-5

Problem-1: Consider the symmetric matrix

$$\text{A}= \begin{bmatrix} 2 & \sqrt{3} \\ \sqrt{3} & 4 \end{bmatrix}$$

and obtain the eigenvalues using the Jacobi method by computing t, c and s. Once you find the eigenvalues, verify the relation $D = R^T AR$.

Where R is the rotation matrix.

$$\text{R}= \begin{bmatrix} c & s \\ -s & c \end{bmatrix}$$

and D is a diagonal matrix with eigenvalues of A as the diagonal elements.

Ans: Eigenvalues of A are 1 and 5.