Exercises

1. Using Inverse Power Method, find the least eigenvalue and the corresponding eigenvector of the following matrices:

(i) $\begin{pmatrix} 4 & 5 \\ 6 & 5 \end{pmatrix}$

(ii) $\begin{pmatrix} 2 & -12 \\ 1 & -5 \end{pmatrix}$

(iii) $\begin{pmatrix} -1 & -6 & 0 \\ 2 & 7 & 0 \\ 1 & 2 & -1 \end{pmatrix}$

(iv) $\begin{pmatrix} 1 & 2 & -2 \\ -2 & 5 & -2 \\ -6 & 6 & -3 \end{pmatrix}$