Result

You entered matrix

$$A = \begin{bmatrix} \frac{2}{9} & \frac{1}{9} & -\frac{2}{9} \\ \frac{1}{9} & \frac{2}{9} & -\frac{1}{9} \\ -\frac{2}{9} & -\frac{1}{9} & \frac{2}{9} \end{bmatrix}$$

The eigenvalues and eigenvectors of matrix A are:

Eigenvalue	Eigenvector
$-\frac{\sqrt{3}-3}{9}$	$\begin{bmatrix} 1 \\ -\sqrt{3}-1 \\ -1 \end{bmatrix}$
$\frac{\sqrt{3}+3}{9}$	$\begin{bmatrix} 1 \\ \sqrt{3}-1 \\ -1 \end{bmatrix}$
0	$\begin{bmatrix} 1 \\ 0 \\ 1 \end{bmatrix}$