

# Eigenvalue of matrix #4

Find the eigenvalues and eigenvectors of  $\mathbf{A}^{-1}$  and  $\mathbf{A} - 4\mathbf{I}$  where  $\mathbf{I}$  is identity matrix and  $\mathbf{A}$  is:

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

Your answer should have the eigenvalues of  $\mathbf{A}^{-1}$  followed by eigenvalues of  $\mathbf{A} - 4\mathbf{I}$  each on a new line (with the smaller value coming first, for each pair):

5  
6  
2  
3