

Finding Eigenvectors

Once we have the eigenvalue, we can then find the corresponding eigenvectors.

Example. Find the eigenvalues and corresponding eigenvectors for the matrix

$$A = \begin{bmatrix} 4 & 3 \\ -2 & -1 \end{bmatrix}.$$

Options for Eigenvalues and Eigenvectors

The eigenvalues of a matrix are the roots of a polynomial. This means there are only a few options for how they can behave.