Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Student number\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Assignment 1**

Determine the eigenvalues ,  and the corresponding eigenvectors ,  of the 2×2 matrix . Write down also the eigenvalue decomposition . Consider



**Solution template**

Eigenvalues given by thecharacteristic equation 

   or 

*Non-zero*eigenvectors given by equations 

 :   

 :   

Matrix of eigenvalues , matrix of eigenvectors  and its inverse

,  and 

Eigenvalue decomposition 

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