## Math 2080: Differential Equations Worksheet 4.2: Eigenvalues and eigenvectors

NAME:

Let 
$$\mathbf{A} = \begin{bmatrix} -2 & 1 \\ 4 & 1 \end{bmatrix}$$
 and  $\mathbf{B} = \begin{bmatrix} 1 & 2 \\ 2 & 4 \end{bmatrix}$ .

1. Compute the eigenvalues of  $\boldsymbol{A}$ .

2. Compute the eigenvectors of  $\boldsymbol{A}$ .

3. Compute the eigenvalues of  $\boldsymbol{B}$ .

4. Compute the eigenvectors of  $\boldsymbol{B}$ .

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