

## 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  $\mathbf{A}$ .

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

3. Compute the eigenvalues of  $B$ .

4. Compute the eigenvectors of  $B$ .