

Name:

Find all eigenvalues for each of the following matrices. For each eigenvalue, find a basis for the corresponding eigenspace.

1. $A = \begin{pmatrix} 2 & -2 \\ -2 & 2 \end{pmatrix}$

2. $B = \begin{pmatrix} 3 & -1 \\ 4 & -1 \end{pmatrix}$