

Name:

1. Give a QR decomposition for the following matrix.

$$A = \begin{pmatrix} 1 & 1 \\ 0 & 1 \\ 1 & 0 \end{pmatrix}$$

2. Find all eigenvalues and eigenvectors for the following matrix. Indicate which eigenvectors correspond to which eigenvalues.

$$B = \begin{pmatrix} 0 & -1 & 1 \\ 0 & -1 & 0 \\ -1 & -3 & 2 \end{pmatrix}$$