

MATH 335 Quiz 7

Name: _____

Show all work. 10 points each.

1. Diagonalize the matrix $\begin{bmatrix} 3 & -1 \\ 1 & 5 \end{bmatrix}$ if possible. If not explain why.

2. Verify the eigenvalues of $\begin{bmatrix} 1 & -1 \\ 1 & 1 \end{bmatrix}$ are $1 \pm i$ and find the eigenvectors.