

MATH 335 Quiz 6

Name: _____

Show all work. Can use Matlab to check but show how you got there. 5 points each.

1. How do you know, by inspection, the matrix $\begin{bmatrix} 1 & 0 \\ 6 & -1 \end{bmatrix}$ is diagonalizable? Diagonalize the matrix (enough to find P and D).

b) Diagonalize the matrix $\begin{bmatrix} 5 & 1 \\ -8 & 1 \end{bmatrix}$ (enough to find P and D). Hint: the eigenvalues are complex.