MATH 260, Homework 10, Spring '14

Due: April 11, 2014 Honor Code:

Name:

1) Give all of the eigenspaces for each matrix. Give the algebraic and geometric multiplicity associated with each eigenvalue.

a)
$$(14 \text{ pts}) \begin{bmatrix} 5 & 1 \\ -1 & 3 \end{bmatrix}$$

b) (14 pts)
$$\begin{bmatrix} 5 & 1 & 0 & 0 \\ 0 & 5 & 0 & 0 \\ 0 & 0 & 5 & 0 \\ 0 & 0 & 0 & 3 \end{bmatrix}$$