MT-A315 Introduction to Linear Algebra Worksheet 6.3

Group: _____ Present: _____

1. Compute eigenvalues and eigenvectors for the matrix $A = \begin{pmatrix} -2 & -3 & 3 \\ 0 & 2 & 0 \\ -2 & 0 & 2 \end{pmatrix}$

   (Use Maple if you wish)

   Verify that the complex eigenvalues and eigenvectors occur in conjugate pairs.

2. Compute eigenvalues and eigenvectors for the matrix $A = \begin{pmatrix} 3 & 4 & 2 \\ -1 & 1 & 1 \\ 0 & -2 & 0 \end{pmatrix}$

   (Use Maple if you wish)

   Verify that the complex eigenvalues and eigenvectors occur in conjugate pairs.