MATH 1553
QUIZ #7: §§6.1,6.2

Name		Section	

1. [3 points] Write a correct definition of an eigenvalue:

   "λ is an eigenvalue of an $n \times n$ matrix A provided that

2. [4 points] Find all eigenvalues of A, and produce a basis for each eigenspace.

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

3. [3 points] Let A be the matrix for the transformation from $\mathbf{R}^2$ to $\mathbf{R}^2$ that reflects over the line $y = x$. Draw an eigenvector of A on the graph below.