MATH 1553
QUIZ #7: §§6.1,6.2

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

“\( \lambda \) 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 \( \mathbb{R}^2 \) to \( \mathbb{R}^2 \) that reflects over the line \( y = x \). Draw an eigenvector of \( A \) on the graph below.