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/m333.sp07/handouts333/EigenElem424/ProbsEigen424

The following problems are cooked up to be easy by-hand calculations. Treat them as such, showing the relevant steps in your solution.

Example 6.2.2, page 354, may be of help.

- 1 Let $\mathbf{A} = \begin{bmatrix} -5 & 14 \\ -4 & 10 \end{bmatrix}$. Find the eigenvalue(s) for \mathbf{A} . And then, for each eigenvalue, find the corresponding eigenvectors. Announce the eigenpairs you've found.
- 2 Repeat problem 1 for $\mathbf{A} = \begin{bmatrix} -14 & -48 \\ -48 & 14 \end{bmatrix}$.
- 3 Repeat problem 1 for $\mathbf{A} = \begin{bmatrix} 0 & 4 \\ -1 & 4 \end{bmatrix}$.