Homework 24   MATH 304   Section 3

Assigned: Monday, November 21.
Potentially Collected: Wednesday, December 3.

1. Find the characteristic polynomials, the eigenvalues, and associated eigenvectors for each of the following matrices.

   (a) $\begin{bmatrix} 1 & 1 \\ 1 & 1 \end{bmatrix}$

   (b) $\begin{bmatrix} 1 & -1 \\ 2 & 4 \end{bmatrix}$

   (c) $\begin{bmatrix} 0 & 1 & 2 \\ 0 & 0 & 3 \\ 0 & 0 & 0 \end{bmatrix}$

   (d) $\begin{bmatrix} 2 & 2 & 3 \\ 1 & 2 & 1 \\ 2 & -2 & 1 \end{bmatrix}$