Homework #3

Problem

Use the Power method to find the dominant eigenvalue of the following matrix

$$A = \begin{bmatrix} 4 & 1 & 1 & 1 \\ 1 & 3 & -1 & 1 \\ 1 & -1 & 2 & 0 \\ 1 & 1 & 0 & 2 \end{bmatrix}$$

with initial approximation $x^{(0)} = (1, -2, 0, 3)^T$

● (**Optional**) Use the symmetric Power method.