Power Method Example

For the program on the TI-83/84 calculator it begins with entering in the matrix in [A] and the initial guess vector in [B]. I am using the matrix A

and the vector B as

for this demonstration. Then return to the home screen and begin the program.



After hitting Borderthe following screen will appear after some time.



The largest eigenvalue is about 6 and the eigenvector associated with this eigenvalue is about

Remember finding the largest eigenvalue using this method is an iterative process so the user must enter in the number of iterations to attempt. Also the power method will converge for the most part, but in order to have quick convergence, the initial guess of the eigenvector must be relatively close to the actual eigenvector, otherwise you’ll exceed you number of iterations.