Homework 6 Numerical Linear Algebra 1 Fall 2002

Due date: By end of class 11/25/02

Reading

Read Golub and Van Loan Sections on the symmetric eigenvalue problem.

Programming Problem

Implement and verify the operation of a code that takes an unreduced symmetric tridiagonal matrix and finds all of the eigenvalues. You need not find the eigenvectors. Use the implicit QR method for symmetric tridiagonal matrices.

You should submit a tarfile via email that contains the code, makefiles, and a program that demonstrates the correctness of the code. I should be able to reproduce your results for full credit.