

Due: Friday, Nov. 18, start of class

Instructions: Use paper-and-pencil calculations to find eigenvalues and eigenvectors in problem 2, and to find just the eigenvalues in problem 5.

Otherwise, you may use technology to obtain *exact* eigenvalues and eigenvectors for the rest of the problems. For example, use the on-line matrix calculator at

http://wims.unice.fr/wims/en_home.html

(click the link “Online calculators and plotters” there and then the link “Matrix calculator”). The actual URL of this calculator is:

`wims.unice.fr/wims/wims.cgi?session=D86D9862&lang=en&module=tool%2Flinear%2Fmatrix.en`

Or, use *Mathematica* or *Maple*. But do *not* use your calculator or MATLAB, which give only approximate answers.

1. Do page 297, Exercise 4 (a)–(d).
2. Do page 297, Exercise 10. (Continuation of preceding.)
Since you did not do (e) in the preceding problem, then in part (c) of this one there’s no comparison for you to make.
3. Do page 313, Exercise 2.
4. Do page 313, Exercise 6. (Continuation of preceding.)
5. Do page 315, Exercise 18.