

Here is a selection of problems from the sections covered by the second exam. Some of the problems were already assigned as homework.

Note that some of the problems can be solved with more than one method (as we progressed in the book, we learned more general ways to deal with various topics). Thus, even if the problem is listed in a particular section, you might use a more advanced method to solve it.

§4.2: 1, 2

§4.3: 7, 9, 12, 13, 15

§4.5: 1, 3, 4, 5

§4.6: 4, 5

§4.7: 5, 7

§4.8: compute eigenvalues and eigenvectors of matrices given at 5, 7 and $\begin{pmatrix} 1 & -5 \\ 1 & -1 \end{pmatrix}$

§4.9: 1, 3

§5.1: 3, 5, 7, 9, 11, 13, 15

§5.2: 1, 5, 9, 11, 13, 15

§5.3: 7 (try to do it by hand; use the order w_2, w_3, w_1 to make the computation easier)

§5.4: 3, 5

§5.5: 1, 2, 3

§5.6: 5, 9 (do by hand)