MATH 240 - SUGGESTED PROBLEMS

FALL 2016

Our work in class and on the homework assignments focuses primarily on higher-level thinking. Of course, it is still important to practice doing computational problems to solidify your understanding. The following problems should not be turned in, but doing them should be considered part of studying for this course.

This also serves as a rough reading schedule for the textbook.

1. Linear Independence and Span (Weeks 1-2)

Section 1.3. 9, 11, 12, 15, 17, 19

Section 1.7. 1, 3, 9, 11, 15, 17

Section 4.3. 1, 3, 5, 7

2. Systems of Equations (Week 3)

Not all of this material will be covered in lecture; you will need to read some of these sections on your own.

Section 1.1. 1, 7, 11, 13, 15

Section 1.2. 1, 3, 7, 11

Section 1.4. 3, 5, 7, 11

Section 1.5. 5, 7, 11

3. Linear Transformations and Matrices (Weeks 4-5)

You may need to read some of the material on matrices on your own.

Section 1.8.

Section 1.9.

Section 2.1.

Section 2.2.

Section 2.3.

Section 3.1.

Section 3.2.

Section 3.3.

4. Vector Spaces (Weeks 6-7)

Section 2.8.

Section 2.9.

Section 4.1.

Section 4.2.

Section 4.3.

Section 4.4.

Section 4.5.

Section 4.6.

Section 4.7.

5. Eigenvalues, eigenvectors, and other eigenthings (Weeks 7-8)

Section 5.1.

Section 5.2.

Section 5.4.

Section 5.5.

6. Diagonalization and Projection (Weeks 9-10)

Section 5.3.

Section 7.1.

Section 6.1.

Section 6.2.

Section 6.3.