

Final Review, MAT 22B Hillel Raz

March 11, 2009

The final will be cumulative and hence will cover ch. 1, 2, 3, 6.1-6.2, and ch. 7. For a review of everything up and including ch. 3, look at the past two midterm reviews.

For chapter 6, know what the Laplace transform is and how to calculate it. Know how to find the solution of a differential equation using the Laplace transform and its inverse. You are not expected to memorize the different Laplace transforms. You will be given the ones you need.

Good examples for this type of problem are p. 322 1-23.

Of course, review examples done in class and old homeworks.

For chapter 7, know how to write a second order differential equation (or higher order) as systems of equations (section 7.1, p. 360 1-4).

You should know a good amount of linear algebra, the stuff covered (reviewed) in class and the problems done in the homework. If we didn't cover it in class and it was not covered in the homework, then don't worry about it.

Know how to solve systems of equation. Also when the solution is stable and when its not, and be able to draw the graphs when possible, as was covered in class. (section 7.5 1-10, 7.6 1-10, 7.8 1-4, 7-10).

Know what a fundamental matrix is. Know how to take the exponential of a matrix (section 7.7).

Know how to solve non-homogeneous systems, as will be covered in class on Friday, 03/13 (section 7.9, 1-12).