Remarks for the Final Exam
Math 2R03 Autumn 2007–08

1) You should know the following definitions: *basis, span, linearly independent, linear combination, linear transformation, kernel, image, one-to-one, onto, isomorphism, invariant subspace, eigenvalue, eigenvector, eigenspace, characteristic polynomial, orthogonal, orthogonal basis, orthonormal basis, symmetric linear operator, inner product space.*

2) There will be somewhat more emphasis on the last part of the course, but the exam overall will be cumulative.

Here are some good problems to use as review questions:

Chapter 6: 6.1:3, 14,
6.2: 6, 11, 28,
6.3: 3, 13

Chapter 7: 7.1: 15,
7.2: 2, 3, 7,
7.3: 6, 19

Chapter 9: 9.1: 4, 9,
9.2: 7, 9,
9.3: 8, 10, 19,
9.4: 1

Chapter 10: 10.1: 7, 13,
10.2: 4, 6, 9, 13,
10.3: 5