MATH 225

Topics in Linear Algebra and Differential Equations

Assignment 15

Due Thursday, April 19

Read Section 6.5: “Fundamental Matrices and the Exponential of a Matrix” and Section 6.6: “Nonhomogeneous Linear Systems” of Chapter 6: Systems of First Order Linear Equations

Problems

Maple will be useful for parts of the starred problems.

6.3 Homogeneous Linear Systems with Constant Coefficients

Practice Problems: 1, 2, 11*, 15*, 18*
Feedback Problems: 2, 15*

6.4 Nondefective Matrices with Complex Eigenvalues

Practice Problems: 3, 5, 11, 15*
Feedback Problems: 3, 11