

# MATH 226 : Differential Equations

## Differential Equations

### Assignment 17

*Due Monday, April 21*

**Read** Section 7.2: “Almost Linear Systems” and Section 7.3 “Competing Species” of Chapter 7: *Nonlinear Differential Equations and Stability*.

### Problems

#### 6.7 Defective Matrices

**Practice Problems:** 1, 3, 9

**Feedback Problems:** 3, 9

### 7.1 Autonomous Systems and Stability

To describe the basin of attraction (part d), try to have MATLAB or *Maple* draw the separatrices that you can see in the direction field and discuss.

**Practice Problems:** 1\*, 2\*, 4\*, 6\*, 8\*, 23, 24, 25, 26

**Feedback Problems:** 4\*, 6\*, 24

