

Department of Mechanical Engineering  
2.14 ANALYSIS AND DESIGN OF FEEDBACK CONTROL SYSTEMS

Fall Term 2003

Problem Set 2

Assigned: September 10, 2003

Due: September 17, 2003

**Reading:**

- Review your 2.003/2.004 notes on frequency response functions.
- Class handout on Frequency Domain methods.
- Nise, Chapter 2. (Note that the modeling sections can be replaced with the methods you learned in 2.003/2.004).

The following three problems are very simple review questions: ( $u(t)$  is the unit step function.)

**Problem 1:** Nise, Problem 2.1 (p. 110)

**Problem 2:** Nise, Problem 2.2 (p. 110)

**Problem 3:** Nise, Problem 2.7 (p. 110)

**Problem 4:** Nise, Problem 2.9 (p. 111)

**Problem 5:** Nise, Problem 2.25 (p. 115)

**Problem 6:** Nise, Problem 2.55 (p. 125)