18.701 Problem Set 1

This assignment is due Wednesday, September 11.

You are expected to prove your assertions.

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 4.8. *(generating $SL_n(\mathbb{R})$)* (turn in part (b))

5. *(optional)* Chapter 2, Exercise M.16. *(the homophonic group)*

Please note these homework guidelines:

Consulting existing solutions is not permitted.
The solutions that you hand in must be written entirely by you.
List your collaborators at the top of your assignment.
Use a separate sheet of paper for each problem.
Put your name on each sheet.
Put your solutions into the appropriate slots by room 4-174.
You must turn in the assignments on time.