# **Assignment 23** (11/27)

## **Subhadip Chowdhury**

This homework is due at the beginning of class on **Wednesday** 11/29. You may cite results from class as appropriate. Unless otherwise stated, you must provide a complete explanation for your solutions, not simply an answer. You are encouraged to work together on these problems, but you must write up your solutions independently.

You are encouraged to think about the problems marked with a (\*) if you have time, but you don't need to hand them in.

Remember that you can always use the result of the previous assignment problems without proof to solve the new assignment problems.

#### Problem 0∗

All of this assignment is optional. You do not need to submit it, but make sure you can work out all the problems here since this is part of the final exam syllabus.

# Problem 1∗

Problems 11.4.(3, 5, 12, 20).

### Problem 2∗

Problems 11.6.(3, 8, 11, 19, 21, 31).