

Homework 5 Due day: April 14

All solutions should be typed, using Latex preferably. Briefly explain the correctness and complexity of your solution.

- (1) Chapter 8, 1
- (2) Chapter 8, 3
- (3) Chapter 8, 5
- (4) Chapter 8, 14
- (5) Chapter 8, 21
- (6) Refer to card game (the second last page of the second set of slides) with two players A and B. Suppose A is the first player. Given n (number of cards), write a pseudo for a winning strategy (for A) and then program the strategy. Show the interactions between A and B (via program outputs). Your program also allows choices from B. If there is no winning strategy for A, the program just prints "no winning strategy". Show cases for $n=10, 34,$ and 52 .