

## Discrete Math 2200. Problem Set 8

**Due date:** Thursday, November 13, in class. Late homeworks are not accepted, except for a medical or some other university approved reason.

The numbering of the exercises below is as in the textbook (Rosen, ed. 6). Only even numbered exercises will be graded (unless specified otherwise), but I recommend you try to do all of them for practice.

**Problem 1.** (Recursion) 4.3, page 308: ex. 3, 8, 9, 13 (ex. 13 will be graded).

**Problem 2.** (Basics of counting) 5.1, pages 344-345: ex. 4, 7, 8, 16, 24, 26, 33, 39.

**Problem 3.** (Pigeonhole principle) 5.2, pages 353-354: ex. 4, 6, 9, 15, 30.

**Problem 4.** (Inclusion-exclusion) 5.1,7.5, pages 504-505: ex. 2, 8, 10.