Math 330 (Number Systems), Section 3 (Dmytro Savchuk) Spring 2010 Homework assignment 6 (due Monday, March 1)

## Solve the following problems

- 1. do Project 4.8
- 2. prove Proposition 4.12,
- 3. Prove that for  $n \ge 0$  the following equality holds

$$\sum_{k=1}^{n} k \binom{n}{k} = n2^{n-1}$$

Can you think of a simple way to prove this?