

## Homework, the 3rd series

**Deadline: 15 May, 23:59.**

(1) Prove that a variant of *CNF SAT*, where each variable occurs at most twice, is in the class P.

*Hint.* You may use an algorithm for matching in bipartite graph.

(1) Prove that a variant of *CNF SAT*, where each clause is a Horn clause or contains exactly two literals, is NP-complete.

*Reminder.* In a Horn clause, at most one literal is a variable (the others are negations of variables).

**Reference.** Ch.Papadimitriou, Computational complexity, *Addison Wesley Longman*, 1994.