

Dealing with hard problems II

AVA Fall 2005, week 6

October 3

Content The first NP-Complete problem: Circuit satisfiability. How to prove NP-Completeness. 3SAT is NP-Complete, and some other NP-Completeness proofs.

Litterature

- Chapter 8: NP and Computational Intractability in *Algorithm Design* by Kleinberg and Tardos (KT). Pages 466-473. (Handed out at lecture 5.)
- Chapter 34.3 in CLRS. Pages 984-995 is an alternative to KT.
- Chapter 34.4 in CLRS. Pages 995-1018.

Exercises

- Exercise 34.5-1, 34.5-5, and 34.5-6 page 1017, CLRS.
- Problem 34-2, pages 1018-1019, CLRS.

Hand-ins (to be handed in October 24, 9.00.)

1. Problem 34-3, pages 1019-1020 in CLRS.