Institut for Matematik og Datalogi
Syddansk Universitet

February 10, 2010
JFB

DM508 – Algorithms and Complexity – 2010
Lecture 5

Lecture, February 10

We continued with NP-Completeness, covering Cook's Theorem and began on some reductions from known NP-Complete problems. We showed that 3-SAT was NP-Complete and that CLIQUE is in NP. Note that I mostly used the notes for Cook's Theorem (the proof that SAT is NP-Complete); the textbook is too vague.

Lecture, February 15

We will continue with NP-Completeness, covering more reductions from known NP-Complete problems.

Lecture, February 22

We will finish NP-Completeness and begin on amortized analysis from chapter 17 of the textbook and Fibonacci heaps from chapter 20 (chapter 19 in the third edition).

Problems to be discussed on February 23

Do problems:

1. 34.5-5 (Warning: it is tempting to think that this one is completely trivial; it is not. Also, to make this easier, you may redefine the Set Partition problem to allow the same value appearing more than once), 34.5-6.
2. 34-2, 34-3.
3. 34-1a, 34-1b, 34-1c.
4. 34-4a, 34-4b, 34-4c.