Institut for Matematik og Datalogi
Syddansk Universitet

February 11, 2011
JFB

DM508 – Algorithms and Complexity – 2011
Lecture 5

Lecture, February 10

We continued with NP-Completeness, covering Cook's Theorem. 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 14

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

Lecture, February 21

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

Problems to be discussed on February 23

Do problems:

1. 34.5-4. (you may check on pages 1228–1129 for a hint, which is 1044–1045 in the second edition).
2. 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.
3. 34-2, 34-3.
4. 34-1a, 34-1b, 34-1c.
5. 34-4a, 34-4b, 34-4c.