Institut for Matematik og Datalogi
Syddansk Universitet

February 28, 2007
JFB

DM508 – Algorithms and Complexity – F07
Lecture 10

Lecture, February 27

We continued with NP-Completeness, doing a number of reductions, proving that CLIQUE, VERTEX COVER, INDEPENDENT SET, and HAMILTONIAN CIRCUIT were NP-Complete.

Lecture, March 1

We will finish NP-Completeness and begin on approximation algorithms, covering the introduction to chapter 35 and section 35.2.1.

Lecture, March 6

We will cover approximation algorithms for MAX-SAT, including the randomized algorithms from the notes.

Problems to be discussed on March 7

1. 35.2-2, 35.2-3. (Is the triangle inequality necessary? As a hint, notice the similarity to Prim's algorithm for MST.)
2. 35.2.5.
3. 35.4-1, 35.4-2. 35.4-3.
4. 35-1. (For part a of 35-1, you might consider reducing from the set-partition problem which is defined in exercise 34.5-5.)