COS 487: Theory of Computation
Fall 2010
Assignment \#4
Due: Friday, Nov 19 6PM
Sanjeev Arora

Suggested reading: Sipser Chapter 7.
Additional reading: Arora Barak Chapter 4.

## Collaboration Policy

You are allowed to collaborate with other people enrolled in this class. If you solved a particular problem in collaboration with somebody else, please mention the collaborator(s) name.

It is a violation of class rules to look at solutions to any of the problems from any other person or source, including online ones.

## Problems:

1. Sipser 7.18
2. Sipser 7.23
3. Sipser 7.29
4. Sipser 7.36
5. Sipser 7.44
6. Sipser 7.45
7. Show that the problem of finding roots of multivariate polynomials over the integers which have degree at most 6 is NP-complete.
