CS152 **SPRING 1999**

Homework 5

Due: Monday, Apr. 12, at 9:00pm in the handin bin located on 2^{nd} floor CIT

Collaboration is allowed only by terms of the policy. All problems are worth 20 points. Tom will hold TA hours Thursday 8-9PM, Dave Friday 3-4PM in the TA annex room on the second floor of the CIT.

Problem 1.

Show that if $NP \neq coNP$ then $P \neq NP$.

Problem 2.

Sipser 7.16

Problem 3.

Sipser 7.17

Problem 4.

Sipser 7.26

Problem 5.

Sipser 7.34

(PS: You need not use the subgraphs if you do not want to.)