## SPRING 2004: COT 6405 Analysis of Algorithms

[Homework 5; Due Apr 15 in my office before class]

## **Problems**

- 28. (Regular)Solve Problem 34.4-7 (page 1003).
- 29. (Regular)Solve Problem 34-1 (page 1018).
- 30. (**Regular**) The decision and optimization versions of a problem are often closely related. Write down precisely (in a formal way) the decision version and the optimization version of the TSP problem. (Only state the problem versions.) Now show that if one of them can be solved in polynomial time, so can the other.
- 31. (Extra Credit)Solve Problem 34-3 (page 1019).
- 32. (Regular)Solve Problem 35.1-3 (page 1027).
- 33. (Extra Credit)Solve any of the problems 35-1 through 35-5 (pages 1049-1052).