

CSE 431/531 Homework Assignment 5

Due in class on Thursday, Apr 26.

April 25, 2007

There are totally 8 problems, 10 points each. You should do them all. We will grade only 6 problems chosen at my discretion. If it so happens that you don't do one of the problems we don't grade, then no points will be deducted.

Note: this homework is on network flows and **NP**-completeness. To present a solution to a problem requiring flow networks, typically you can describe how you can model the problem using flow networks (or circulation with or without demands and lower bounds), and give an analysis of running time.

Problem 1. Textbook, Chapter 7, Problem 16.

Problem 2. Textbook, Chapter 7, Problem 17.

Problem 3. Textbook, Chapter 7, Problem 27.

Problem 4. Textbook, Chapter 7, Problem 29.

Problem 5. Textbook, Chapter 8, Problem 10.

Problem 6. Textbook, Chapter 8, Problem 13.

Problem 7. Textbook, Chapter 8, Problem 19.

Problem 8. Textbook, Chapter 8, Problem 27.