BU CLA CS 530: Analysis of Algorithms

Spring 1999

Problem Set 6

Due Thursday February 25, by 5:00 pm, in my mailbox in the main office of the CS department. Late submissions not accepted.

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1. Exercise 16 in Handout 2.

2. (Reducing the edge-connectivity problem to a max-flow problem.)
   Exercise 27.2-9, page 600, in [CLR].

3. (Reducing the s, t-connectivity problem to a max-flow problem.)
   Design an efficient algorithm for the s, t-connectivity problem: Given a directed graph $G = (V, E)$ and distinct vertices $s, t \in V$, and $k \geqslant 1$, decide whether there exist k edge-disjoint paths from s to t. (The vertex-disjoint version of this problem is NP-complete.)

4. Problem 27-1, page 625, in [CLR].

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