CMPSC 623 Problem Set 7.
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Due: December 6, 2007, before class.

Problem 1 Page 566, 23.1-1.

Problem 2 Page 566, 23.1-5.

Problem 3 Page 600, 24.3-2.

Problem 4 Page 600, 24.3-3.

Problem 5 Page 600, 24.3-4.

Problem 6 You are given an efficient algorithm A to solve the decision version of Longest Path Problem for any graph $G = (V, E)$. Please describe an efficient algorithm to solve the optimization version of Longest Path Problem. Note, both versions of the problem are discussed in class.

Problem 7 Are all problems in P also in NP? Are all problems in NP also in P? And please give a short description of how to prove a problem $\prod$ is NP complete.