CS 3500 Section C, Fall 2000

Extra Credit Homework – due Thursday, Dec. 7

Problem 1 Show how to modify Prim's MST algorithm so that it runs in time $O(n \log k)$ on a graph that has only k different edge weights.

Problem 2 Exercise 24.2–6, page 510 of CLR.

Problem 3 Let G ba a graph and u, v two vertices in G. In any MST of G, there is a unique path connecting u and v. Is this path necessarily a minimum-weight path? Prove or disprove.

Problem 4 Exercise 25.2–2, page 531 of CLR.

Problem 5 Exercise 25.3–1, page 535 of CLR.

Problem 6 Exercise 26.2-5, page 565 of CLR.