

Algorithms Tutorial 4

February 8, 2011

Question 0.1. *Let G denote a digraph with positive edge capacities c_e on edge e , a designated source s and sink t . Let f denote an integer maximum s - t flow in G . Suppose f is given and that the capacity of an edge $e \in G$ is increased by 1 then find the new maximum flow in G in $O(|E| + |V|)$ time.*

This is solved problem 1 on pg. 411 of the Kleinberg & Tardos book.