

MATH 3330 — Applied Graph Theory

Assignment 7

Due Thursday, March 13, 2007 (before class)

1. Find a maximum flow and minimum cut in the networks of problems 13.1.2 and 13.1.4. Use trial and error.
2. Suppose a capacitated s - t network N is given. Suppose that the directed version of depth-first search is applied with root s . Let $A \subseteq V(N)$ be the vertices that are part of the dfs tree. Assume that $t \notin A$. What is the maximum value of an s - t flow in this network? Justify your answer by giving a minimum cut.
3. Text, problem 13.1.10.
4. Text, problem 13.2.2. Find a maximum flow and minimum cut by applying the max-flow algorithm.
5. Text, problem 13.2.7.
6. Text, problem 13.2.9.