

Tutorial 10

Advanced Graph Theory

October 22, 2013

1. By definition, $|f| = f(s, V)$. Prove that $|f| = f(V, t)$.
2. Run the Ford Fulkerson algorithm on the following graph.

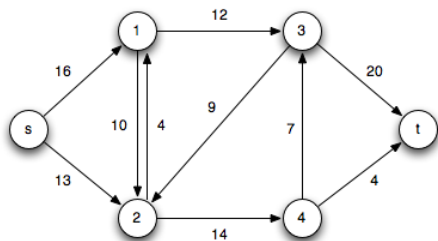


Figure: Network 1

What is the minimum cut corresponding to the maximum flow?

3. Given a bipartite graph G , express the problem of finding the maximum matching in G as a flow graph problem.
4. Using network flows, prove König-Egerváry Theorem ($\alpha'(G) = \beta(G)$ if G is bipartite).