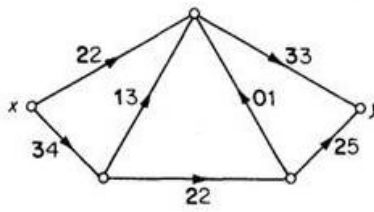


Problems on network flow

December 3, 2012

(These problems are from an old book by Bondy and Murty.)

1) Consider the following network (the first number is the flow, the second is the capacity):



- Determine all the cuts.
- Find the capacity of the minimum cut.
- Show the flow is a max flow.

2) If (S, S^c) and (T, T^c) are minimum cuts in N , show that $(S \cup T, (S \cup T)^c)$ and $(S \cap T, (S \cap T)^c)$ are also minimum cuts in N .

3) Use xy -semipaths to increase the value of the flow by 2. (Note, the first number is the flow and the second is the capacity.)

