

Project 6-3

Maximum-flow problem

Ps. In project 6, we have three parts. You may choose two of these three to do. You will get 5 points bonus if one of your program is maximum flow. Since the assignment is announced on June first, the deadline becomes June 26th in EC324.

Please design a program that solved maximum-flow problem, that is, given a directed graph with positive weight and two points which represent source and sink, output the maximum flow from the source to the sink.

Input

(the input will be a file and this example is on p.710 figure 26.1)

6 //number of nodes in the graph, node 1 is source and the last one is sink.

1 2 16

1 3 13

3 2 4

2 4 12

4 3 9

3 5 14

5 4 7

5 6 4

4 6 20

Output

23