Problem 1. Maximum flow (1 point)

Timelimit: 2 seconds

Problem Statement

For a given directed graph G = (V, E), find a maximum flow of G from node 0 to node |V| - 1.

Input Statement

First line contains t which is the number of test cases.

First line of each test case contains n, m which are the number of node and number of edges ($n \le 500$, $m \le 2,000$).

And next m line contain three numbers $u, v, c \le 10,000$ which means there exist directional edges (u, v) which capacity is c.

Output Statement

For each test case, prints out Maximum flow in the graph Each test case should be separated by a line.

Input Example

2

5 9

029

 $0\ 4\ 10$

1 2 3

 $1\ 4\ 4$

2 0 10

 $2\ 3\ 9$

 $2\ 4\ 1$

2 1

 $0\ 1\ 1$

Output Example

17

1