Disappeared

Time limit: 2 sec.
Memory limit: 512MB

Description

When Junhee, Minkyu, Sungsoo, and Jihun lived in Fenet Hotel, they did not take their LAN cable connected to the PC^2 server because they had to open the server until late night for students to practice. The next day, they found their LAN cable disappeared! So, they connected the server to the network with another LAN cable, and they did not take it again. And the next day, the LAN cable disappeared again! From this moment, they have been sensitive about LAN cables.

One day, they decided to connect all computers in Lab 3 and 4 to the network. However, they do not have enough LAN cables. So, they decided to sneak into another lab and to steal all LAN cables.

They investigated a lab. It seems all computers are connected to each other. Some computers are connected with more than one LAN cables. But, no LAN cable connects one computer and the computer itself. If they steal all LAN cables, then students, staffs, and faculty will realize something is wrong. So, they want for all computers to be connected to each other after they disconnect some LAN cables.

As long as all computers are connected, they want to maximize the sum of length of LAN cables which they steal from the lab. This also means they want to minimize the sum of length of LAN

cables which they leave in the lab.

As their friend, you decided to help them. You are given how the computers are connected and the length of each LAN cable. Find the maximum of the sum of length of LAN cables they can have.

Input

The first line contains two integers n and m, the number of computers and the number of LAN cables, respectively. ($2 \leq n \leq 1{,}000$, $1 \leq m \leq 5{,}000$) The computers are named from 1 to n.

The next m lines contain three integers a, b, and c, the computers a and b which the each LAN cable connects, and the length of LAN cable, respectively. ($1 \leq a,b \leq n$, $1 \leq c \leq 1000$, $a \neq b$)

Output

Print the maximum of the sum of length of LAN cables which they can have in one line.

Sample I/O

Input(s)	Output(s)
5 6 1 2 6 2 3 3 3 1 7 2 4 2 4 5 3 5 3 1	10

Note: they can have the LAN cables between 1 and 3, and between 2 and 3. Or, they can have the LAN cables between 1 and 3, and between 4 and 5.