

Problem A

The Kingdom consists of many towns joined by roads. Each road brings in some amount of profit from tolls, but it also has to be maintained. Due to the recent budget cuts, every town can maintain at most one of the roads that lead to it. All unmaintained roads will soon become unusable and stop bringing profit. Find the set of roads that should be maintained so that the total profit is maximized.

Input and output

The first line contains integers $n, m \leq 10^5$, the number of towns and roads. Each of the following m lines contains three integers a, b , and p ($1 \leq a, b \leq n$, $a \neq b$, $1 \leq p \leq 10^4$), indicating a road between the towns a and b that brings profit p . There can be multiple roads between the same pair of towns.

A set R of roads can be maintained if to each town t we can assign at most one road r from R such that r joins t to another town. Output a single integer, the maximum possible sum of profits of roads in a set that can be maintained.

Example

Input:

```
4 5
1 2 1
1 3 2
1 4 3
2 3 4
3 4 5
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Output:

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14
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