Company and Exchange

Input file:	`standard input`
Output file:	`standard output`
Time limit:	2 seconds
Memory limit:	256 megabytes

You are CEO of a Large Multinational Company. There are **N** countries in which your company has headquarters. You have decided to have cultural exchange among all the offices. In this exchange program one member of each office has to be exchanged with one member of all the other offices. As the countries have visa issues, you can only go from some country to another.You have collected some data which contains at-most M pairs of countries that allow exchange between them and time taken to travel from one country to another.

Note: There can be multiple entries of same set of countries in the data that you collected. In such case you assume actual travel time to be maximum of all reported travel time between those country.

You have to reduce the total time that is wasted in travel during this process.

Input

First line contains two integers **N,M**.
Next N line contains 3 integers u, v, w which means that countries u and v allow exchange between them and reported travel time w.
where

$1 \leq \mathrm{N} \leq 500$
$1 \leq \mathrm{M} \leq 200000$
$1 \leq u,v \leq N$
$1 \leq W \leq 10^5$

Output

Only 1 integer minimum time that is wasted in this process.

Example

standard input	standard output
4 5 1 2 5 1 4 3 2 4 1 2 3 7 4 3 2	36

Note

Here total time refers to the total time that is spent during traveling by all of the employees that were exchanged, as that wasted time of each such employee could have been used in some activity that is productive for the company.