Problem B

The Kingdom consists of many towns joined by roads. Each road is maintained by one of the princes. Lately, the princes have grown lazy, and decided that each will maintain at most one road. However, they do not want this to be too suspicious, and thus they want to do it in such a way that it is still possible to get from any town to any other town using only the maintained roads.

Input and output

The first line contains integers $n \leq 500$ and $m \leq 1000$, the number of towns and roads. The i-th of the following m lines contains three integers a, b, and p ($1 \leq a, b \leq n$, $a \neq b$, $1 \leq p \leq 10^9$), indicating that the i-th road joins the towns a and b and is maintained by the prince number p. There can be multiple roads between the same pair of towns.

You can assume that there exists a set R of roads, each maintained by a different prince, such that the graph whose vertices are the towns and whose edge set is R is connected. Write out one such set of minimum possible size; the output should consist of the numbers of the roads forming R, each written on a separate line. Any valid set R can be written out, in any order.

Example

Input:

```
4 6
1 2 1
1 2 2
1 3 1
1 4 1
2 3 1
3 4 3
```

Output:

```
2
3
6
```