

Given an undirected multigraph in which each edge is assigned a colour, a rainbow subgraph is a subgraph in which no two edges have the same colour. In this problem, you have to find the maximum number of edges in a rainbow forest contained in a given edge-coloured multigraph. Note that a forest is an acyclic subgraph and cannot contain multiple edges.

Input

The first line of input specifies the number of vertices n and the number of edges m . The next m lines specify the edges in the graph. Each line contains 3 numbers separated by a space, u, v, c . Here u, v are the endpoints of the edge, with $1 \leq u < v \leq n$, and c is the colour of the edge, $1 \leq c \leq m$. Note that there may be multiple edges between the same pair of vertices, but you can assume that any such edges will have different colours. The number of vertices n is at most 100 and the number of edges m is at most 1000.

Output

Output a single number which is the maximum possible number of edges is a rainbow forest contained in the graph.

Sample Input

```
5 9
1 2 1
1 2 2
1 3 1
1 3 3
2 3 2
2 3 3
2 4 4
4 5 4
3 5 4
```

Sample Output

```
3
```