→ Submit?

Language: GNU G++20 13.2 (64 bit, win

Choose file: Choose File No file chosen

Submit

F. Dense spanning tree

time limit per test: 2 seconds

memory limit per test: 256 megabytes

You need to find a spanning tree in the graph so that the difference between the maximal and the minimal edges is minimal.

Input

The first line of the input contains two integers n and m ($2 \le n \le 1000, 0 \le m \le 10\,000$) — the number of vertices and the number of edges, respectively. Next m lines contain the description of edges, one per line. Edge i is described by three integers b_i, e_i and w_i ($1 \le b_i, e_i \le n, \ -10^9 \le w_i \le 10^9$) — the ends of the edge and its weight, respectively.

Output

If the spanning tree exists, then the first line of the output should contain "YES", and the second line should contain one integer — the minimal difference between the maximal and the minimal edges of the spanning tree.

Otherwise, the sole line of the output should contain "NO".

Example

input Copy

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

output Copy

```
YES
0
```