

# Best Edge Weight

时间限制：2S

空间限制：256M

提交地址：<https://www.luogu.com.cn/problem/CF827D>

## 题面翻译

给定一个点数为  $n$ ，边数为  $m$ ，权值不超过  $10^9$  的带权连通图，没有自环与重边。  
现在要求对于每一条边求出，这条边的边权最大为多少时，它还能出现在所有可能的最小生成树上，如果对于任意边权都出现，则输出  $-1$ 。

$(2 \leq n \leq 2 \times 10^5, n - 1 \leq m \leq 2 \times 10^5)$

## 题目描述

You are given a connected weighted graph with  $n$  vertices and  $m$  edges. The graph doesn't contain loops nor multiple edges. Consider some edge with id  $i$ . Let's determine for this edge the maximum integer weight we can give to it so that it is contained in all minimum spanning trees of the graph if we don't change the other weights.

You are to determine this maximum weight described above for each edge. You should calculate the answer for each edge independently, it means there can't be two edges with changed weights at the same time.

## 输入格式

The first line contains two integers  $n$  and  $m$  ( $2 \leq n \leq 2 \cdot 10^5, n - 1 \leq m \leq 2 \cdot 10^5$ ), where  $n$  and  $m$  are the number of vertices and the number of edges in the graph, respectively.

Each of the next  $m$  lines contains three integers  $u, v$  and  $c$  ( $1 \leq v, u \leq n, v \neq u, 1 \leq c \leq 10^9$ ) meaning that there is an edge between vertices  $u$  and  $v$  with weight  $c$ .

## 输出格式

Print the answer for each edge in the order the edges are given in the input. If an edge is contained in every minimum spanning tree with any weight, print  $-1$  as the answer.

## 样例 #1

### 样例输入 #1

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

## 样例输出 #1

```
2 2 2 1
```

## 样例 #2

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### 样例输入 #2

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

### 样例输出 #2

```
-1 -1 -1
```