Problem D. Mizuki and mizuki

Time limit 3000 ms
Memory limit 256MB

Problem Description

Is this Mizuki?

After returning from the deep sea, Mizuki decides to face off against mizuki at Kamiyama High School. The high school can be represented as an undirected graph with N nodes and M edges, where the i-th edge has a weight limit of w_i kilograms. If this limit is exceeded, the edge will collapse. There will be Q duels, and due to mysterious disruptions, before each duel, Mizuki and mizuki are teleported to nodes a and b, respectively. For each duel, determine the maximum weight (including herself) that Mizuki can carry to her duel with mizuki without causing any edges to collapse.

Input format

The first line contains two integers N ($1 \leq N \leq 10^5$) and M ($1 \leq M \leq 10^5$).

The next M lines each contain three integers, a, b ($1 \leq a, b \leq n$) and w_i ($1 \leq w_i \leq 10^9$), representing a edge between a to b.

The next line contains a integer N ($1 \leq Q \leq 10^5$).

The next Q lines each contain two integers, a and b ($1 \leq a, b \leq n$), representing the positions of Mizuki and mizuki.

Output format

For each duel, output the maximum weight that Mizuki can carry.

Subtask score

Subtask	Score	Additional Constraints
1	7	$N \leq 5000$.
2	26	$M = N - 1$
3	67	No constraints

Sample

Sample Input 1

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

Sample Output 1

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