Oranges

Input file:	`standard input`
Output file:	`standard output`
Time limit:	1 second
Memory limit:	48 megabytes

RI has received a surplus of budget! After undergoing expansions, it is now a connected graph with N buildings numbered from 0 to N-1 and E bidirectional edges.

After returning from OBS, the deputy head prefect, Nigel has realised that he only has 3 days to complete his CEP final project! Oh no! Luckily, one of his classmates has a craze over oranges and is willing to offer Nigel help for a massive payment of oranges. Nigel has thus decided that each edge will be assigned a weight W_i. Every time a prefect travels from node S_i to D_i, he will be required to pay a number of oranges equal to the maximum weight of all the edges he traverses.

Chien Hao has been newly elected as a prefect! For each Q days, he will be required to travel from node S to D. However, he is a small boy and only wants to carry the exact number of oranges needed to reach his destination.

Can you help Chien Hao?

Input

The input format is as follows:

- The first line of input will contain 3 integers, N, E and Q.
- The next N lines of input will each contain 3 integers A_i, B_i and W_i.
- The next Q lines of input will each contain three integers S_i and D_i.

Output

For each day, output a single integer on a single line, the minimum number of oranges Chien Hao has to bring to satisfy Nigel's requirements.

Constraints

All input data satisfy the following constraints:

- $1 \leq A_i, B_i, S_i, D_i \leq N$
- $1 \leq W_i \leq 10^{12}$

Scoring

Subtask	Score	N	E	Q	Additional Constraints
1	22	$1 \leq N \leq 10^5$	$1 \leq E \leq 3 \times 10^5$	$1 \leq Q \leq 10^5$	Graph is a line $E = N - 1$
2	24	$1 \leq N \leq 1000$	$1 \leq E \leq 3000$	$1 \leq Q \leq 1000$	Graph is a tree
3	14	$1 \leq N \leq 1000$	$1 \leq E \leq 3000$	$1 \leq Q \leq 1000$	-
4	40	$1 \leq N \leq 10^5$	$1 \leq E \leq 3 \times 10^5$	$1 \leq Q \leq 10^5$	-
5	0	Sample Testcases			

Example

standard input	standard output
5 9 5 0 1 7 0 2 6 0 3 5 0 4 2 1 3 1 1 4 10 2 3 9 2 4 15 3 4 3 0 3 1 2 1 4 2 3 0 4	3 6 3 6 2

Note

Sample Input Explanation

- Cheapest path from 0 to 3 is $0 \to 1 \to 3$ (cost 3 oranges)
- Cheapest path from 1 to 2 is $1 \to 3 \to 4 \to 0 \to 2$ (costs 6 oranges)
- Cheapest path from 1 to 4 is $1 \to 3 \to 4$ (cost 3 oranges)
- Cheapest path from 2 to 3 is $2 \to 0 \to 3$ (cost 6 oranges)
- Cheapest path from 0 to 4 is $0 \to 4$ (cost 2 oranges)