Cloud-Ascending Platform

Input file:	`standard input`
Output file:	`standard output`
Time limit:	5 seconds
Memory limit:	1024 megabytes

Just like many things in the world, the title of this problem has no meaning.

Given an undirected graph with n vertices and m edges, the edges are numbered from 1 to m in order, and each edge has a weight c_i. You now need to answer q queries, each in the following form:

- If only the edges with indices in $[l, r]$ are kept, what is the sum of the weights of all bridge edges in the graph modulo 2^{64}?

You need to answer each query.

You may want to know the definition of a bridge: an edge is called a bridge if and only if removing it increases the number of connected components in the graph.

Input

The first line contains n, m, q ($1 \leq n \leq 500, 1 \leq m, q \leq 10^5$), representing the number of vertices, edges, and queries in the graph.

The next m lines each contain three integers u, v, c ($1 \leq u, v \leq n$, $0 \leq c < 2^{64}$), representing an edge in the graph.

The next q lines each contain two positive integers l, r ($1 \leq l \leq r \leq m$), representing a query.

It is guaranteed that the graph contains no self-loops, but it may contain multiple edges.

Output

For each query, output one line containing an integer representing the answer.

Example

standard input	standard output
5 6 6 1 2 1 2 3 2 2 4 4 2 5 8 1 3 16 4 5 32 1 3 2 4 3 5 4 6 2 6 1 6	7 14 28 56 18 0