Problem F. Envy

Time Limit 2000 ms
Mem Limit 262144 kB

For a connected undirected weighted graph G, MST (minimum spanning tree) is a subgraph of G that contains all of G's vertices, is a tree, and sum of its edges is minimum possible.

You are given a graph G. If you run a MST algorithm on graph it would give you only one MST and it causes other edges to become jealous. You are given some queries, each query contains a set of edges of graph G, and you should determine whether there is a MST containing all these edges or not.

Input

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

The i-th of the next m lines contains three integers u_i, v_i, w_i ($u_i \neq v_i$, $1 \le w_i \le 5 \cdot 10^5$) — the endpoints and weight of the i-th edge. There can be more than one edges between two vertices. It's guaranteed that the given graph is connected.

The next line contains a single integer q ($1 \le q \le 5 \cdot 10^5$) — the number of queries.

q lines follow, the i-th of them contains the i-th query. It starts with an integer k_i ($1 \le k_i \le n - 1$) — the size of edges subset and continues with k_i distinct space-separated integers from 1 to m — the indices of the edges. It is guaranteed that the sum of k_i for $1 \le i \le q$ does not exceed $5 \cdot 10^5$.

Output

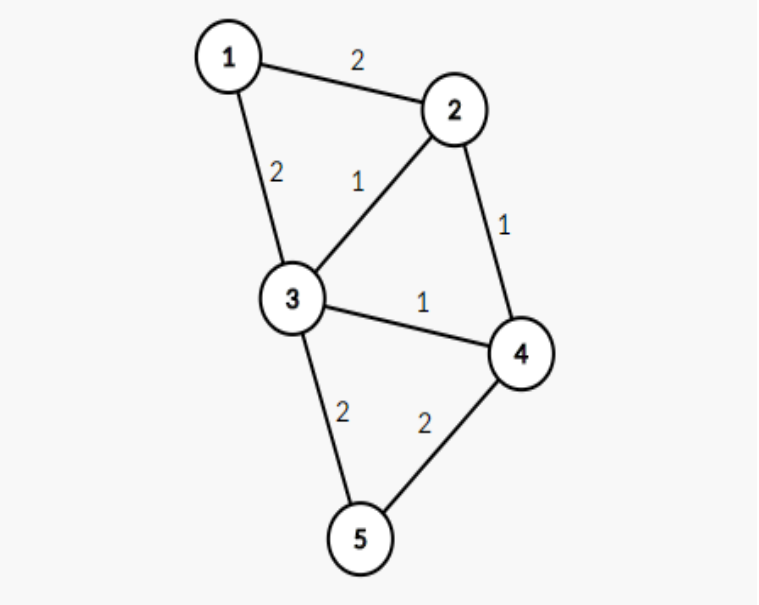
For each query you should print "YES" (without quotes) if there's a MST containing these edges and "NO" (of course without quotes again) otherwise.

Examples

Input	Output
5 7 1 2 2 1 3 2 2 3 1 2 4 1 3 4 1 3 5 2 4 5 2 4 2 3 4 3 3 4 5 2 1 7 2 1 2	YES NO YES NO

Note

This is the graph of sample:



Weight of minimum spanning tree on this graph is 6.

MST with edges $(1, 3, 4, 6)$, contains all of edges from the first query, so answer on the first query is "YES".

Edges from the second query form a cycle of length 3, so there is no spanning tree including these three edges. Thus, answer is "NO".