Galactic Species Explorer

In the Andromeda Galaxy, the Interstellar Alliance has established n colonies across distant planets. Each colony i is inhabited by an alien species uniquely identified by an integer color c_i (though multiple colonies may share the same species). These colonies are interconnected by m bidirectional hyperlanes, each requiring a distinct energy level w for traversal. Due to cosmic radiation, hyperlanes become unstable beyond certain energy thresholds.

As an explorer for the Alliance, your spaceship is equipped with a configurable energy shield. When set to threshold x, it allows traversal only through hyperlanes requiring energy $\leq x$. Your mission is to answer q critical queries: For a departure colony u and shield threshold x, determine the number of distinct alien species accessible from u using active hyperlanes (i.e., those with energy $\leq x$). Note that accessibility requires a path through active hyperlanes between colonies.

Input Format

The first line contains three integers n, m, q: the number of colonies, hyperlanes, and queries.
The second line contains n integers $c_1, c_2, \ldots, c_n$, where c_i is the species color of colony i.
The next m lines describe the hyperlanes. Each line contains three integers u, v, w, indicating a hyperlane between colonies u and v requiring energy w.
The next q lines describe the queries. Each line contains two integers u and x, asking for the number of distinct species accessible from colony u with shield threshold x.

Output Format

For each query, output a single integer: the number of distinct species colors in the connected component containing u when considering only hyperlanes with energy $\leq x$.

Constraints

- $1 \leq n, m, q \leq 200,000$
- $1 \leq w, x \leq 10^9$
- Hyperlane energy levels w are distinct.
- Colonies are 1-indexed.
- The graph may be disconnected.

Sample

Input	Output
4 3 2 1 2 1 3 1 2 5 2 3 3 3 4 4 1 4 2 4	
1 3	

Explanation:
- Query 1: $(u = 1, x = 4)$. Hyperlanes with energy ≤ 4 are $(2, 3)$ and $(3, 4)$. Colony 1 is isolated (since hyperlane $(1, 2)$ requires energy $5 > 4$). Thus, only species 1 is accessible.
- Query 2: $(u = 2, x = 4)$. Colonies $\{2, 3, 4\}$ form a connected component via hyperlanes $(2, 3)$ and $(3, 4)$. The distinct species colors are $1, 2, 3$.