Problem H

# Cute and Lovable Disciples

Time limit: 2 second
Memory: 1024 megabytes

## Problem Description

Once upon a time, there was a kind, friendly and funny person named ***Nhat Tang***, who had many young people wanting to learn how to be as cute and lovable as him. Currently, ***Nhat Tang*** has **N - 2** disciples, numbered from **2** to **N - 1**, representing their order of request to become his disciples. After accepting all the disciples, he took them to a beach area to live together. Here, he assigned each of them a house on a small island, and there are paths connecting some islands for easy access. After listing the paths, ***Nhat Tang*** discovered that there are **M** paths between the houses on island $\mathbf{u_i}$ and island $\mathbf{v_i}$ (where $\mathbf{1 \le i \le M}$).

After distributing the houses to his disciples, ***Nhat Tang*** decided to choose the house on island **1** and the house on island **N** as his residence and the training location for his disciples. Every day, he would move from the house on island **1** to the house on island **N** to teach his disciples. However, being a big fan of ***Zoro***, he often gets lost and takes wrong paths, which leads to delays and distance. Thus, he wants your help to find the **shortest** path so he can follow only that path.

But since they are on the sea, sometimes the tide rises, causing some houses and some paths between two islands to become submerged, making them impassable. Therefore, when you help him find a path, please exclude any submerged paths or houses on the islands to avoid them

**Input:**

- The first line: A positive integer **N** representing the number of houses on the islands.
- The second line: A positive integer **K** representing the number of submerged houses.
- The third line: **K** integers representing the indices of the submerged houses.
- The fourth line: A positive integer **T** representing the number of submerged paths.
- The next **T** lines: Each line contains two integers **x** and **y**, indicating that the path between house **x** and house **y** is submerged.
- The following line: A positive integer **M** representing the number of paths over the sea.
- The next **M** lines: Each line contains three integers **u, v, w** representing the path from house **u** to house **v** with a weight **w** (where $\mathbf{w \le 10^9}$).
- It is known that $\mathbf{1 \le u, v, x, y, K \le N \le 10^5}$ and $\mathbf{1 \le T, M \le 10^6}$.

**Output:**

- A single integer representing the shortest path. If there is no possible route, print $\mathbf{-1}$.

**Example:**

| INPUT | OUTPUT |
| --- | --- |
| 7<br>2<br>3 4<br>2<br>3 4<br>2 7<br>7<br>1 2 1<br>2 7 2<br>2 3 3<br>3 7 4<br>2 5 2<br>5 6 3<br>7 6 4 | 10 |

**Explain:**

- The shortest path: 1 → 2→ 5→ 6 → 7.