E. Smelly Swapnil

Time limit : 2 sec
Memory Limit : 256 MB

Problem Statement

Swapnil hates to take bath. He takes pride in never taking a bath and loves his smelly self. For the sake of question lets assume he has an invisible girlfriend (because that all he can ever get :P). She challenged swapnil to get out of a maze, failing which he will have to take a bath. The maze is as follows: There are N rooms connected via M corridors. Out of N, K are exit rooms. Reaching an exit room means swapnil won't have to take a bath. The invisible girlfriend has no intention to makes things easy for him. Suppose at an instant if Swapnil is at room X then the invisible girlfriend can block any 1 of the corridors connecting room X to any other room. She cannot block a corridor once Swapnil is still in it. Being a lazy person Swapnil wants to find the minimum time required to exit from the maze or find out if he will have to finally take bath. Swapnil always starts from Room 0.

Input

The first line of input N $(1 \le N \le 10^5)$, M $(1 \le N \le 2 * 10^5)$, K $(1 \le N \le N)$.

Each of the next N lines contains 3 integers a_i, b_i, c_i indicating that there is a corridor from room a_i to b_i with c_i time required to cover it. $(0 \le a_i, b_i \le N - 1), 1 \le c_i \le 10^9$

It is followed by a line containing K integers: the exit nodes.

Output

Output a single number : The minimum time required for swapnil to exit from the maze. Print -1 if swapnil cannot exit from the maze.

Sample Input 1

5 4 3

 $0\ 1\ 2$

023

3 2 1

Sample output 1

7

Sample Input 2

 $5\ 7\ 2$

 $0\ 2\ 4$

 $0\ 3\ 3$

 $3\ 2\ 2$

 $2\ 1\ 10$

0 1 100

 $0\ 4\ 7$

349

1 3

Sample output 2