City Tour

Time limit : 2 sec
Memory Limit : 256 MB

Problem Statement

There are N cities connected by M bidirectional roads. There are buses running on each road in both the directions. The ticket price to travel by each bus is P. Out of these buses, some buses were inaugurated today and are free of cost. You are currently at city X and have to reach city Y by spending the least amount of money. Find the amount of money spent.

Input

The first line of input: N ($1 \leq N \leq 5 * 10^6$), M ($1 \leq M \leq min(5 * 10^6, N * (N-1)/2)$), P ($1 \leq P \leq 100$).
Each of the next M lines contains 3 integers $u_i, v_i, free_i$ indicating that there is a bidirectional road from city u_i to v_i and the bus running on this road is free of cost if $free_i$ is 1. ($1 \leq i \leq M$), ($1 \leq u_i, v_i \leq N$), ($0 \leq free_i \leq 1$)
It is followed by a line containing two integers: X($1 \leq X \leq N$), Y($1 \leq Y \leq N$)

Output

Output a single number: The minimum amount of money spent to travel from city X to city Y.
Print -1 if you cannot reach city Y if you start from city X.

Sample Input 1

```
4 4 5
1 2 0
1 3 1
2 4 0
3 4 0
1 4
```

Sample output 1

```
5
```

Sample Input 2

```
3 1 100
1 2 1
1 3
```

Sample output 2

```
-1
```