

# Guga Traveling

Guga is in Biteland. There are  $N$  cities and  $M + K$  bidirectional ways in Biteland. Guga is in City  $1$  and he has to go to city  $N$ . He knows that there are  $K$  special ways in Biteland. He wants to calculate the minimum amount of time he needs, to go from city  $1$  to city  $N$ , passing though all special ways while doing so. It's guaranteed that it's possible.

## Input Format

The first line contains  $N, M$  and  $K$ .

Next  $M$  lines contains  $x, y$  and  $z$ :

- there is a **non-special** bidirectional way between  $x$  and  $y$  where Guga needs  $z$  minutes to pass.

Next  $K$  lines contains  $x, y$  and  $z$ :

- there is a **special** bidirectional way between  $x$  and  $y$  where Guga needs  $z$  minutes to pass.

## Constraints:

- $1 \leq N \leq 1000$
- $1 \leq M \leq 2000$
- $1 \leq K \leq 10$
- $1 \leq x, y \leq N \ x \neq y$
- $1 \leq z \leq 1000$

## Output Format

Print minimum amout of time Guga needs.

## Sample Input

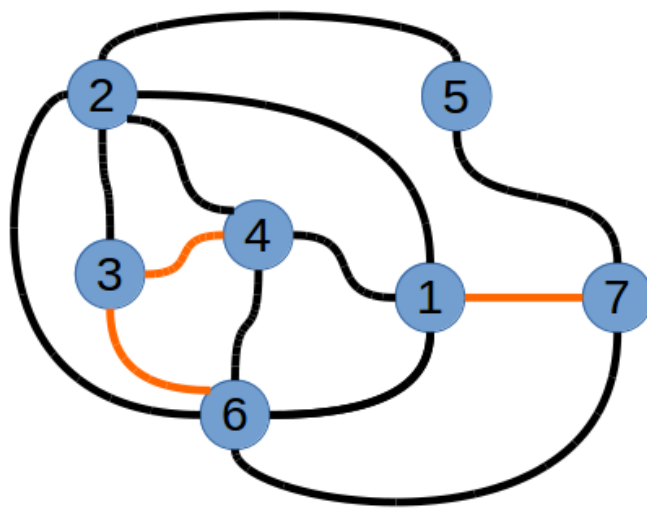
```
7 10 3
1 4 3
2 4 3
2 3 2
2 5 4
4 6 6
5 7 7
1 2 1
2 6 2
1 6 2
6 7 3
1 7 5
3 4 5
3 6 2
```

## Sample Output

```
17
```

## Explanation

Guga will travel in this way:  $1 - 4 - 3 - 6 - 1 - 7$ .



In the picture above, orange is *special* way and black *non-special*.