



Shortest Distance

Problem

Submissions

Leaderboard

Discussions

Problem Statement

You'll be given a graph of **N** nodes and **E** edges. For each edge, you'll be given **A**, **B** and **W** which means there is an edge from **A** to **B** which will cost **W**. Also, you'll be given **Q** queries, for each query you'll be given **X** and **Y**, where **X** is the source and **Y** is the destination. You need to print the minimum cost from **A** to **B** for each query. If there is no connection between **X** and **Y**, print -1.

Note: There can be multiple edges from one node to another.

Input Format

- First line will contain **N** and **E**.
- Next **E** lines will contain **A**, **B** and **W**.
- After that you'll get **Q**.
- Next **Q** queries will contain **X** and **Y**.

Constraints

1. $1 \leq N \leq 100$
2. $1 \leq E \leq 10^5$
3. $1 \leq A, B \leq N$
4. $1 \leq W \leq 10^9$
5. $1 \leq Q \leq 10^5$
6. $1 \leq X, Y \leq N$

Output Format

- Output the minimum cost for each query.

Sample Input 0

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

```
1 4
2 4
4 2
```

Sample Output 0

```
7
4
6
4
5
3
```

Sample Input 1

```
4 4
1 2 4
2 3 4
3 1 2
1 2 10
6
1 2
2 1
1 3
3 1
2 3
3 2
```

Sample Output 1

```
4
6
8
2
4
6
```

[f](#) [t](#) [in](#)Submissions: [99](#)

Max Score: 25

Difficulty: Medium

Rate This Challenge:

☆☆☆☆☆

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C++20



```
1 #include <bits/stdc++.h>
2
3 using namespace std;
4
5
6
7 int main()
8 {
9     // Write your code here
10
11     return 0;
12 }
13
```

Line: 1 Col: 1

 Upload Code as File

☐ Test against custom input

Run Code

Submit Code