Distance

HackerRank

Problem Statement

You will be given an undirected graph as input. You will be given a query Q, for each query you will be given a source **S** and a destination **D**. You need to tell the minimum distance from source to destination for each query.

Note: If there is no path in between the source and destination, print **-1**.

Input Format

- First line will contain **N**, the number of nodes and **E**, the number of edges. The value of nodes will be from **0 to 10^5**.
- Next **E** lines will contain **A, B** which means there is a edge between node A and B.
- Next line will contain **Q**, the number of queries.
- For each query every line will contain **S** and **D**.

Constraints

1. 1 <= **N, E** <= 1000
2. 1 <= **Q** <= 1000
3. 0 <= **S, D** <= 10^5

Output Format

- Output the minimum distance from source to destination for each query.

Sample Input 0

```
6 7
0 1
0 2
1 2
0 3
4 2
3 5
4 3
6
0 5
1 5
2 5
2 3
1 4
0 0
```

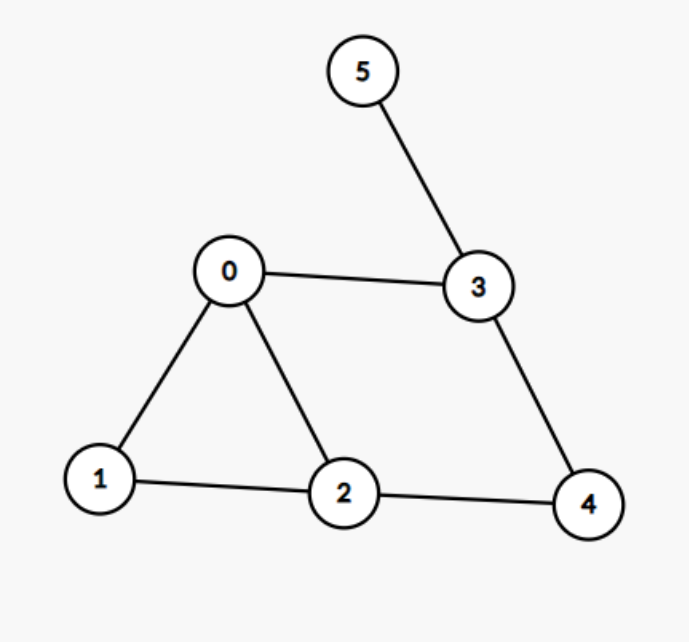
Sample Output 0

```
2
3
3
```

```
2
2
0
```

Explanation 0

In this test case, the graph is given below.



Sample Input 1

```
7 6
0 1
0 2
1 2
0 3
4 2
4 3
4
3 10
2 6
0 6
0 10
```

Sample Output 1

```
-1
-1
-1
-1
```