Problem 1. Shortest path

Problem Statement

For given a directed graph $G = (V, E)$, find a shortest path from a start node 0 to a destination node $(|V| - 1)$.
In this problem, all edges have unit cost.

Input Statement

First line contains t which is the number of test cases.
At the first line of each test case contains the size of graph $|V|(\leq 100,000)$ and $|E|(\leq 200,000)$.
Each of next $|E|$ lines contains two integers u and v that represents an edge (u, v). All the edges are disjoint to each other.

Output Statement

For each test case, print the length of shortest path from start to destination.
If there is no available path, print -1 instead of the length.

Input Example

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

Output Example

```
1
4
```