☰ Hello, **2024101067**.

# Graph Traversal

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✓ **Points:** 100 (partial)
**Time limit:** 1.0s
**Memory limit:** 128M

**Allowed languages**
C, C++

You are provided with a graph consisting of $n$ vertices and $m$ edges. The vertices are numbered from $1$ to $n$. The graph doesn't contain multiple edges, or self-loops.

After the graph description, you are given $q$ queries. Each query contains a single integer $r$, representing the starting node. For each query, output all vertices that are reachable from node $r$ in **ascending order**.

## Constraints:

- $1 \leq q \leq 10^5$
- $1 \leq u, v, r \leq n$

### Subtask 1

- $1 \leq n \leq 10^3$
- $0 \leq m \leq 10^5, 0 \leq m \leq \frac{n(n-1)}{2}$
- $q \cdot n^2$ doesn't exceed $10^7$

### Subtask 1

- $1 \leq n \leq 10^5$
- $0 \leq m \leq 10^5, 0 \leq m \leq \frac{n(n-1)}{2}$
- $q \cdot (n+m)$ doesn't exceed $10^7$

## Input Format:

- The first line contains two space-separated integers $n$ and $m$, representing the number of vertices and the number of edges, respectively.

## Output Format:

For each query, print a single line containing the vertices reachable from $r$, sorted in ascending order. The vertices should be separated by a single space.

## Example:

### Input:

Copy

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

### Output:

Copy

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

## Explanation:

- **Query 1:** Starting from node $1$, the reachable nodes are $\{1, 2, 3, 4\}$. After sorting, the output is: `1 2 3 4`.
- **Query 2:** Starting from node $5$, the reachable nodes are $\{5, 6, 7\}$. After sorting, the output is: `5 6 7`.
- **Query 3:** Starting from node $3$, the reachable nodes are again $\{1, 2, 3, 4\}$ because node $3$ is part of the component that includes node $1$.

**Note:**
Ensure that the output for each query is in **sorted order** — regardless of the order in which nodes are discovered during the traversal, they must be sorted in ascending order before being printed.

# Clarifications

Request clarification