# Problem F. Paintball on Graph

Time limit 500 ms
Memory limit 256MB

## Problem Description

Howard loves paintball; he loves playing Splatoon and paintball guns in real life. Being such a genius in both problem solving and problem setting, he came up with an idea for his problem arsenal.

The problem statement goes,

Given a graph with $N$ vertices and M edges, there will be $Q$ queries with the following types:

1. Paint all the neighboring vertices of $v$ and itself into color $x$.

2. Ask for the color of vertex $v$ at this moment.

Originally, the color of vertices on the graph will be 1.

## Input format

The first line contains two integers $N$, $M$, $Q$: the number of vertices, edges, and queries. $(1 \leq N, M, Q \leq 2 \cdot 10^5)$

The next $M$ lines contain two integers $a$, $b$ in each line: denoting the edges on the graph. $(1 \leq a, b \leq N)$

The next $Q$ lines contain format either "1 $v$ $x$" or "2 $v$". $(1 \leq v \leq N, 2 \leq x \leq 10^9)$

## Output format

Print the color of vertex $v$ for every type 2 query in a new line.

## Subtask score

| Subtask | Score | Additional Constraints |
|---|---|---|
| 1 | 0 | Sample testcases |
| 2 | 10 | $N, M, Q \leq 2000$ |
| 3 | 20 | The given graph is a tree |
| 4 | 70 | No additional constraints |

## Sample

**Sample Input 1**

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

**Sample Output 1**

```
3
3
5
```

**Sample Input 2**

```
6 8 8
1 2
3 4
2 4
2 3
3 6
5 1
1 3
5 6
1 3 2
2 3
1 4 3
1 6 4
2 5
1 4 2
1 1 5
2 3
```

**Sample Output 2**

```
2
4
5
```