Indian Song, Description and Testcases!

Description

Honanna honana honana hona nachana Honanna honnna honana hona anthagaana Andhani lokapu chandrikanai aahvanisthuna Alari aashala abhisarikanai neekai chusthunna Yanping! Yanping! Yanping!

YP, Nonamefour, and Yen-Jen are participating in a team contest held in India. India is famous for its food, culture, song, and, most important of all, Indian testcases!

Alasina solasina Vodilo ninnu laalinchana Vodilo ninnu laalinchana Adugunai nadapanaa Nee janta payaninchanaa Nee janta Yanping! Yanping! Yanping!

Now, Yen-Jen and YP are solving one easy graph problem while Nonamefour is solving another hard math problem.

The graph problem is that given a simple undirected graph, and you need to determine it is connected or not! There are T testcases in the input file of this graph problem, and it claims that the maximum number of vertices is N, and the maximum number of edges is M. Yen-Jen and YP think that if one of the following condition is satisfied, then the testcase is Indian:

1. The T testcases has the same answer.
2. At least one of the T testcases is not a simple undirected graph.
3. No testcase meet the maximum number of vertices N.
4. No testcase meet the maximum number of edges M.

This for Love get it on Get it done Now Prove it some how Move it on now All for Your Love~ Yanping! Yanping! Yanping!

Every step. look At them Really Closer Every breath is Only Love~ Every step … Look at them really closer Every breath… Its only lovee… Yanping! Yanping! Yanping!

Given the all above information, your task is determining that the testcase is Indian or not!

Hint 1: A graph is a simple graph, if the graph has no multiple edges(two or more edges connects the same unordered pair of vertices), nor self cycle(one edge connects the same vertices).

Hint 2: Indian songs are so cool!

Input

The first line of the input contains two integers N, M, denotes the maximum number of vertices and edges in the graph problem input file.

The second line contains one integer T denotes the number of testcases in the graph problem.

In each of the testcases in the graph problem, it contains $m + 1$ lines. The first line contains two integers n, m denotes the number of vertices and edges in this testcase. Vertices are numberd from 1 to n.

Then, in the next m lines, each line contains two integers a, b, denotes there is an edge connects the vertex a and vertex b.

- $2 \leq T \leq 5$
- $1 \leq n \leq N \leq 10^5$
- $0 \leq m \leq M \leq 2 \times 10^5$
- $1 \leq a, b \leq n$

Output

If it is Indian testcase, then print `India` in one line. Otherwise, print `Normal` in one line.

Sample Input 1

```
3 3
2
3 3
1 3
3 2
2 1
3 1
1 3
```

Sample Output 1

```
Normal
```

Sample Input 2

```
3 3
2
3 3
1 2
2 3
3 1
3 3
1 2
2 3
3 1
```

Sample Output 2

```
India
```