ADAlab Online Judge

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ℹ About ∨

two vertices u, v in an undirected graph.

A *connected component* of an undirected graph is a *connected* subgraph that is not part of any larger *connected* subgraph.

Note: an isolated vertex which can not reached by any other vertices should be considered as one *connected component*.

Given an **undirected** graph $G = (V, E)$, note that:

- G may not be connected.
- G doesn't have multiple edges and self-loops.

There are n vertices in V, denoted by $1, 2, ..., n$.

Please answer the number of *connected components* in graph G.

Input

The first lline of the input contains an integer t — the number of testcases.

The first line of each testcase contains two integers n and m — the size of V and the size of E.

Then m lines follow, each line contains two integers u_i and v_i ($1 \leq u_i, v_i \leq n$; $u_i \neq v_i$), being an edge in E.

Restrictions

For test ID 1 (each 20 points):

- $1 \leq t \leq 5$
- $2 \leq n \leq 10^3$
- $1 \leq m \leq min(\frac{n(n-1)}{2}, 2 \times 10^5)$

For test ID 2-5 (each 20 points):

- $1 \leq t \leq 5$
- $2 \leq n \leq 10^5$
- $1 \leq m \leq min(\frac{n(n-1)}{2}, 2 \times 10^5)$

Output

For each testcase, output one line, which answer the number of *connected components* in graph G.

Sample Input 1 📋

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

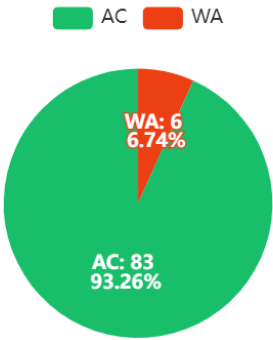### Sample Output 1

```
1
2
```

Submissions

Rankings

View Contest

ℹ **Information**

ID	1
Time Limit	1000MS
Memory Limit	256MB
IO Mode	Standard IO
Created By	ta_david
Level	Hidden
Score	100
Tags	Show

Statistic   Details

🟩 AC   🟥 WA

WA: 6
6.74%

AC: 83
93.26%

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ℹ About ∨

```
2 6
4 6
```

Language: C ▾   ↻   Theme: Solarized Light ▾

☁

```
1
```

✅ You have solved the problem   🐞 Submit for Sample Test   ✏ Submit

⚠ Contest has ended

Sample Test Input

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

Sample Test Output