

Problem 5372 - Bad Scientist

Multilingual

☆

English ▾

Time Limit	Memory Limit	Submissions	Accepted	Solved	Ratio
1 second	128 MB	261	45	32	30.189%

Description

You are a rather fraudulent scientist who makes up all his research data. Due to careful planning you got away with this for many years, but recently you became sloppy. In your most recent paper you came up with so many theories that some even contradict each other. You want to throw away as few theories as possible such that no contradicting pair remains.

There is a problem however: your colleagues have seen you doing a lot of research. There is a limit on how many theories you can throw away before they get suspicious.

Input

On the first line one positive number: the number of test cases, at most 100. After that per test case:

- one line with an integer  $n$  ( $1 \leq n \leq 50$ ): the number of theories in the paper.
- one line with an integer  $k$  ( $1 \leq k \leq 50$ ): the maximum number of theories that can be discarded without arousing suspicion.
- one line with an integer  $m$  ( $0 \leq m \leq n \times (n-1)/2$ ): the number of theory pairs that contradict each other.
- $m$  distinct lines with two space-separated integers  $x_i$  and  $y_i$  ( $1 \leq x_i < y_i \leq n$ ), indicating theory  $x_i$  and theory  $y_i$  are contradictory.

Output

Per test case:

- one line with the minimal number of theories that have to be discarded to make a consistent paper or the word "IMPOSSIBLE" if this is impossible without arousing suspicion.

Sample Input 1

Copy

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

Sample Output 1

Copy

1

IMPOSSIBLE

Source



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- 문제를 번역한 사람: baekjoon (/user/baekjoon)

알고리즘 분류

보기

Memo