Problem E
Cycles (Easy)

Note that this is an easier version of the problem cycleshard.

You are given a complete undirected graph with n nodes numbered from 1 to n. You are also given k *forbidden* edges in this graph.

You are asked to find the number of Hamiltonian cycles in this graph that don't use any of the given k edges. A Hamiltonian cycle is a cycle that visits each vertex exactly once. A cycle that contains the same *edges* is only counted once. For example, cycles 1 2 3 4 1 and 1 4 3 2 1 and 2 3 4 1 2 are all the same, but 1 3 2 4 1 is different.

Input

The first line of input gives the number of cases, T. T test cases follow. The first line of each test case contains two integers, n and k. The next k lines contain two integers each, representing the vertices of a forbidden edge. There will be no self-edges and no repeated edges.

You may assume that $1 \leq T \leq 10, 0 \leq k \leq 15$ and $3 \leq n \leq 10$.

Output

For each test case, output one line containing "Case #X: Y", where X is the case number (starting from 1) and Y is the number of Hamiltonian cycles that do not include any of those k edges. Print your answer modulo 9901.

Sample Input 1

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

Sample Output 1

```
Case #1: 1
Case #2: 660
```