homework10.2 Origins

Description

Given a directed graph with no loops(edges that connect vertices with themselves), a vertex v is called origin if it is possible to reach every vertex from v. Please find the number of origins in the graph.

Input Format

The first line contains an integer $T(1\leq T\leq 100)$, which indicates the number of test cases.

Each test case contains two lines:

The first line contains two integers $n,m(2\leq n\leq 10\text{^}4,1\leq m\leq 10\text{^}4)$ - the number of vertices and the number of directed edges.

The second line contains $2\mathrm{m}$ integers $v_1,v_2,...,v_{2m}(1\leq v_i\leq n,1\leq i\leq 2m)$, meaning that there is an edge from v_i to v_{i+1} $(1\leq i\leq 2m$ and $i \bmod 2 = 1)$.

There is no loop in the graph, but there may be two edges connecting the same pair of vertices.

Output Format

For each test case, output the number of origins in a separate line.

Sample Input	Sample Output
8 2 1 2 1 2 3 2 1 2 1 1 2 3 2 1 3 3 1 3 5 1 2 3 2 2 1 3 1 1 3	1 2 0 3 1 3 5 3

Hint

SCC

複雜度若是 O(nm)可以拿到部分分數