

EC_P - Critical Edges

https://www.spoj.com/problems/EC_P/

Given a connected graph, you must find all the edges that are critical, in other words you must find the edges which when removed divide the graph.

Input

The first line contains a NC ($1 \leq NC \leq 200$), the number of test cases integer. Then follow NC test cases.

Each case begins with two integers N ($1 \leq N \leq 700$) and M ($N - 1 \leq M \leq \frac{N * (N - 1)}{2}$), the number of nodes and the number of edges respectively. Then follow M lines, each with a pair of integers a b ($1 \leq a, b \leq N$) indicate that between the node a and the node b there is a edge.

Output

For each test case print the list of ways to protect the following format:

Caso #n

t

x_1 y_1

x_2 y_2

...

x_t y_t

Where n is the case number (starting from 1), t is the total of critical edges, list elements x_i y_i indicates, for each line, there is a critical edge between the node x_i and node y_i ($1 \leq x_i \leq y_i \leq N$). In addition, the list should be sorted in no-decreasing order first by x_i and then by y_i . Also $x_i < y_i$ must hold.

If there isn't any critical edge print: "Sin bloqueos" (quotes for clarity).

Example

Input:	Output:
3	Caso #1
5 4	4
1 2	1 2
4 2	2 3
2 3	2 4
4 5	4 5
	Caso #2
5 5	2
1 2	3 4
1 3	4 5
3 2	Caso #3
3 4	Sin bloqueos
5 4	
4 6	
1 3	
1 4	
2 1	
3 2	
4 2	
4 3	