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## Problem A. Eulerian Orientation

Input file: *standard input*  
Output file: *standard output*  
Time limit: 2 seconds  
Memory limit: 512 mebibytes

It is well known that an undirected graph is *eulerian* if and only if each vertex has an even degree.

Yuuka has an undirected graph with  $n$  vertices and  $m$  edges. The vertices are conveniently labeled with  $1, 2, \dots, n$ . All edges are initially blue. Yuuka plans to paint some of the edges red, and leave other edges blue. If the subgraph formed by the red edges is *eulerian*, she will add  $x^2$  to the counter, where  $x$  is the number of red edges.

Let the counter account for all  $2^m$  ways to paint the edges. Yuuka would like to know the total value of the counter modulo  $(10^9 + 7)$ .

### Input

The input contains zero or more test cases, and is terminated by end-of-file. For each test case:

The first line contains two integers  $n$  and  $m$  ( $1 \leq n \leq 2 \cdot 10^5$ ,  $0 \leq m \leq 2 \cdot 10^5$ ).

The  $i$ -th of the following  $m$  lines contains two integers  $a_i$  and  $b_i$  which denote an edge between vertices  $a_i$  and  $b_i$  ( $1 \leq a_i, b_i \leq n$ ).

It is guaranteed that neither the sum of all  $n$  nor the sum of all  $m$  exceeds  $2 \cdot 10^5$ .

### Output

For each test case, output an integer which denotes the result.

### Example

standard input	standard output
4 4 1 2 1 3 1 4 2 3 6 6 1 2 2 3 3 1 4 5 5 6 6 4 2 3 1 1 1 2 1 2	9 54 14