Problem K. Ancient Magic Circle in Teyvat

Astrologist Mona Megistus discovers an ancient magic circle in Teyvat recently.



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The magic circle looks like a complete graph with n vertices, where m edges are colored red and other edges are colored blue. Note that a complete graph is a simple undirected graph in which every pair of distinct vertices is connected by a unique edge.

Mona realizes that if she chooses four different vertices such that the six edges between these four vertices are of the same color, she will get a *key* from the magic circle. If the color is red, she will get a *red key*, and if the color is blue, she will get a *blue key*.

Base on the information written in the ancient books Mona has read, the magic power of the ancient magic circle is the absolute difference between the number of *red keys* and the number of the number of *blue keys* she can get from the magic circle.

Mona needs your help badly, since calculating the magic power of the magic circle is really a tough job.

Input

There is only one test case in each test file.

The first line of the input contains two integers n and m ($4 \le n \le 10^5$, $0 \le m \le \min(\frac{n(n-1)}{2}, 2 \times 10^5)$) indicating the number of vertices and the number of edges colored red of the ancient magic circle.

For the following m lines, the i-th line contains two integers u_i and v_i ($u_i < v_i$) indicating a red edge connecting vertices u_i and v_i. It is guaranteed that each edge appears at most once.

Output

Output one line containing one integer indicating the magic power of the ancient magic circle.

Example

standard input	standard output
7 6 1 2 1 3 1 4 2 3 2 4 3 4	3

Note

For the sample case, there is only one *red key* $(1, 2, 3, 4)$ and there are four *blue keys* $(1, 5, 6, 7)$, $(2, 5, 6, 7)$, $(3, 5, 6, 7)$ and $(4, 5, 6, 7)$ in the ancient magic circle, thus the magic power of the magic circle is $|1-4| = 3$.