

Problem G. Medals

Input file: *standard input*
Output file: *standard output*
Time limit: 1 second
Memory limit: 256 mebibytes

n people participated in Snuke Olympiad. The contestants were numbered 1 through n . They were ranked 1st through n -th according to the result of the contest, and no two contestants got the same rank. Snuke gave gold, silver, and bronze medals to 1st, 2nd, and 3rd ranked participants of the contest, respectively. For each $1 \leq i \leq m$, it is known that the contestant a_i performed better (i.e., got smaller rank) than the contestant b_i in the contest. Count the number of different possible results of medal winners. (Two results are considered different if at least one of gold, silver, or bronze medal is given to different contestants.)

Input

First line of the input contains two integers n and m . Then m lines follow, i -th of them containing two integers a_i and b_i .

Constraints:

- $3 \leq n \leq 10^5$
- $1 \leq m \leq 10^5$
- $1 \leq a_i, b_i \leq n$
- The input is consistent: there is at least one way to satisfy all conditions given by a_i, b_i .

Output

Print the number of different possible results of medal winners.

Example

standard input	standard output
3 1 1 2	3
6 8 2 1 6 4 3 4 1 6 3 1 5 4 2 6 2 6	8

Note

In Sample 1, there are three possibilities: $(gold, silver, bronze) = (1, 2, 3), (1, 3, 2), (3, 1, 2)$.