Problem

You are given an undirected, complete graph G that contains N vertices. Each edge is colored in either white or black. You are required to determine the number of triplets (i, j, k) $(1 \le i < j < k \le N)$ of vertices such that the edges $(i, j), (j, k), (i, k)$ are of the same color.

There are M white edges and $\frac{N(N-1)}{2} - M$ black edges.

Input format

- First line: Two integers - N and M $(3 \le N \le 10^5, 1 \le M \le 3 \cdot 10^5)$
- $(i+1)^{th}$ line: Two integers - u_i and v_i $(1 \le u_i, v_i \le N)$ denoting that the edge (u_i, v_i) is white in color

Note: The conditions$(u_i, v_i) \neq (u_j, v_j)$ and $(u_i, v_i) \neq (v_j, u_j)$ are satisfied for all $1 \le i < j \le M$.

Output format

Print an integer that denotes the number of triples that satisfy the mentioned condition.

Additional information

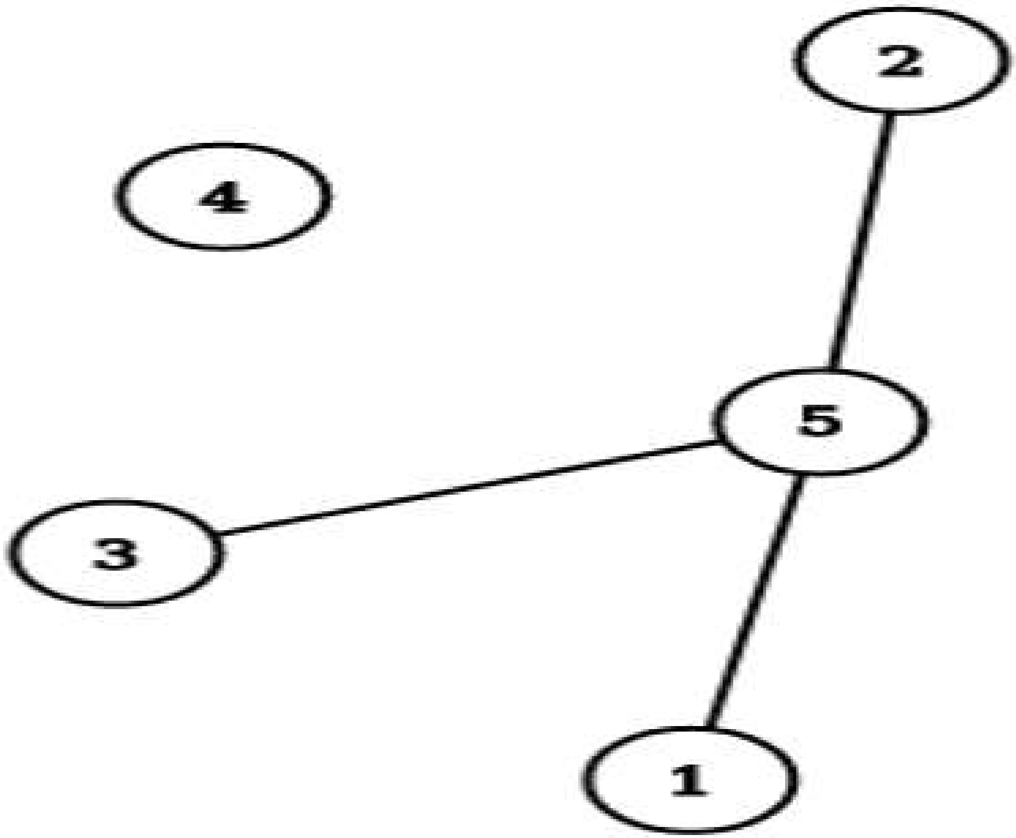
- For 20 points: $N \le 200$ is satisfied
- For additional 20 points: $N \le 2000$ is satisfied
- Original constraints for remaining points

Sample Input	Sample Output
5 3 1 5 2 5 3 5	4

Time Limit: 2

The triplets are: $\{(1,2,3),(1,2,4),(2,3,4),(1,3,4)\}$.

The graph consisting of only white edges:



The graph consisting of only black edges:

The graph consisting of only black edges: