

Count Pairs

Given a undirected graph with n vertices and m edges. Your task is count the number of distinct pairs (u, v) that there is exist a path with length exactly 2 from u to v . Another mean, with each pair (u, v) , we could find a vertex t that we have an edge (u, t) and (t, v) . The input set may be contains multiple edge between any vertex and not consider to connected.

Input

- First line: n, m ($1 \leq n, m \leq 10^5$).
- m following line: u, v ($1 \leq u, v \leq n$).

Output

The number of distinct pairs.

Example

Input:

```
5 4
2 1
1 5
3 1
4 3
```

Output:

```
4
```

Note: we have $(1, 4)$, $(2, 3)$, $(2, 5)$, $(3, 5)$