
Squares in a graph

P99912_en

Onzè Concurs de Programació de la UPC - Semifinal (2013-06-19)

You are given an undirected graph G . Let us define a *square* as any cycle of length exactly four in G . Can you count the number of squares in G ?

Input

Input consists of several cases. Every case begins with two natural numbers n and m , which are respectively the number of vertices and the number of edges of G . Follow m pairs $x y$ to indicate that there is an edge connecting vertices x and y . Assume $0 \leq n \leq 2000$ and $0 \leq m \leq 10n$. Vertices are numbered starting at 0. There are no edges of the kind $x x$, nor repeated edges.

Output

For every given G , print its number of squares.

Sample input

```
4 4
0 1 1 2 2 3 3 0

6 5
0 1 0 2 1 2 2 4 4 5

5 7
0 1 2 0 0 3 4 1 2 4 3 4 2 1
```

Sample output

```
1
0
3
```

Problem information

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