
Squares in a graph

P99912_en

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 1	Sample output 1
<pre>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</pre>	<pre>1 0 3</pre>

Problem information

Author: Salvador Roura

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