



HOME CONTESTS GYM PROBLEMSET GROUPS RATING API RCC W VK CUP CROC CROC

PROBLEMS SUBMIT STATUS STANDINGS CUSTOM TEST

D. A Simple Task

time limit per test: 2 seconds memory limit per test: 256 megabytes input: standard input output: standard output

Given a simple graph, output the number of simple cycles in it. A simple cycle is a cycle with no repeated vertices or edges.

Input

The first line of input contains two integers n and m ($1 \le n \le 19$, $0 \le m$) – respectively the number of vertices and edges of the graph. Each of the subsequent m lines contains two integers a and b, ($1 \le a, b \le n, a \ne b$) indicating that vertices a and b are connected by an undirected edge. There is no more than one edge connecting any pair of vertices.

Output

Output the number of cycles in the given graph.

Examples

input			
4 6			
1 2			
1 3			
1 4			
2 3			
2 4			
3 4			
output			
7			

Note

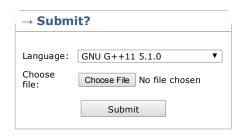
The example graph is a clique and contains four cycles of length 3 and three cycles of length 4.

Codeforces Beta Round #11 Finished Practice

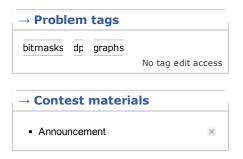
→ Virtual participation

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Start virtual contest



Submission Time Verdict 15065511 Dec/28/2015 o8:33 Runtime error on test 2 15065505 Dec/28/2015 o8:32 Runtime error on test 2



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