HARBOUR SPACE





HOME TOP CONTESTS GYM PROBLEMSET GROUPS RATING API HELP DASHA 🟋 CALENDAR

PROBLEMS SUBMIT CODE MY SUBMISSIONS STATUS HACKS STANDINGS CUSTOM INVOCATION

G. Graph And Numbers

time limit per test: 3.5 seconds memory limit per test: 512 megabytes input: standard input output: standard output

You are given an undirected graph with n vertices and m edges. You have to write a number on each vertex of this graph, each number should be either 0 or 1. After that, you write a number on each edge equal to the sum of numbers on vertices incident to that edge.

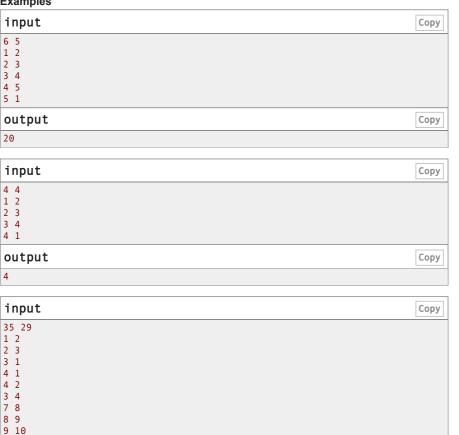
You have to choose the numbers you will write on the vertices so that there is at least one edge with 0 written on it, at least one edge with 1 and at least one edge with 2. How many ways are there to do it? Two ways to choose numbers are different if there exists at least one vertex which has different numbers written on it in these two ways.

The first line contains two integers n and m ($1 \leq n \leq 40, 0 \leq m \leq \frac{n(n-1)}{2}$) — the number of vertices and the number of edges, respectively.

Then m lines follow, each line contains two numbers x_i and y_i $(1 \leq x_i, y_i \leq n, x_i \neq y_i)$ — the endpoints of the i-th edge. It is guaranteed that each pair of vertices is connected by at most one edge.

Print one integer — the number of ways to write numbers on all vertices so that there exists at least one edge with 0 written on it, at least one edge with 1 and at least one edge with 2.

Examples



Educational Codeforces Round 73 (Rated for Div. 2) **Finished Practice**

→ Virtual participation

Virtual contest is a way to take part in past contest, as close as possible to participation on time. It is supported only ICPC mode for virtual contests. If you've seen these problems, a virtual contest is not for you - solve these problems in the archive. If you just want to solve some problem from a contest, a virtual contest is not for you - solve this problem in the archive. Never use someone else's code, read the tutorials or communicate with other person during a virtual contest.

Start virtual contest

→ Practice

You are registered for practice. You can solve problems unofficially. Results can be found in the contest status and in the bottom of standings.

→ Clone Contest to Mashup

You can clone this contest to a mashup.

Clone Contest







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