

Problem G. Random spanning tree

Input file: `stdin`
Output file: `stdout`
Time limit: 1 second
Memory limit: 512 megabytes

Tsun de re syou jyo Yuuka lives in Moe Country. The road system in Moe Country is a connected graph G . Each edge has a random (real) length, which is uniformly random in $[0, 1]$.

Now Yuuka is eager to know the expectation of minimum spanning tree of G .

Input

The first line contains 2 integers n, m , which denotes the number of vertices and edges of G , respectively ($2 \leq n \leq 8, n - 1 \leq m \leq \frac{n(n-1)}{2}$).

The vertices in G are conveniently labeled by $1, 2, \dots, n$.

Each of the following m lines contains 2 integers a_i, b_i , which denotes an edge between vertices a_i and b_i ($1 \leq a_i, b_i \leq n$).

It is guaranteed that the graph G is connected, without self loops and parallel edges.

Output

A single fraction p/q denotes the expectation.

Sample input and output

stdin	stdout
3 2 1 2 2 3	1/1
3 3 1 2 2 3 3 1	3/4