Baltic OI '11 P2 - Ice Cream

Time limit: 0.6s **Memory limit:** 64M

Baltic Olympiad in Informatics: 2011 Day 1, Problem 2

Rasmus and his friends are on vacation in Italy. Since they are suffering from the heat, they decide to buy some ice cream. There are N flavors of ice cream available; flavors are numbered from 1 to N. However, some pairings of flavors should be avoided; otherwise, the taste would be unpleasant. Rasmus wants to know how many ways there are to choose three **different** flavors without any such *impossible pairing*. The order of flavors is not taken into account.

Constraints

$1 \leq N \leq 200$

$0 \leq M \leq 10\,000$

Input Specification

The first line of input contains two non-negative integers N and M, the number of flavors and the number of **impossible pairings**. Each of the M following lines describes an **impossible pairing** and contains two different flavor numbers. No impossible pairing will appear twice.

Output Specification

The first and only line of output must contain a single integer: the number of possible choices.

Sample Input

```
5 3
1 2
3 4
1 3
```

Sample Output

```
3
```

Explanation for Sample

There are 5 flavors and 3 impossible pairings. Flavor 1 should be combined with neither flavor 2 nor flavor 3, and flavor 3 also should not be chosen together with flavor 4. Only 3 ways to choose three different flavors remain: $(1, 4, 5)$, $(2, 3, 5)$, and $(2, 4, 5)$.