# Sandy and Nuts

## 题面翻译

你曾经有一棵（以 $1$ 号点为根的）树，但你却忘记了它的形态，只记得其中的 $m$ 条边，以及 $q$ 对关系：$a_i$ 号点和 $b_i$ 号点的 LCA 为 $c_i$ 号点。现在你想知道有多少种满足这些条件的树。

## 题目描述

Rooted tree is a connected graph without any simple cycles with one vertex selected as a root. In this problem the vertex number 1 will always serve as a root.

Lowest common ancestor of two vertices $u$ and $v$ is the farthest from the root vertex that lies on both the path from $u$ to the root and on path from $v$ to the root. We will denote it as $LCA(u, v)$ .

Sandy had a rooted tree consisting of $n$ vertices that she used to store her nuts. Unfortunately, the underwater storm broke her tree and she doesn't remember all it's edges. She only managed to restore $m$ edges of the initial tree and $q$ triples $a_i$ , $b_i$ and $c_i$ , for which she supposes $LCA(a_i, b_i) = c_i$ .

Help Sandy count the number of trees of size $n$ with vertex 1 as a root, that match all the information she remembered. If she made a mess and there are no such trees then print 0 . Two rooted trees are considered to be distinct if there exists an edge that occur in one of them and doesn't occur in the other one.

## 输入格式

The first line of the input contains three integers $n$ , $m$ and $q$ ( $1 <= n <= 13, 0 <= m < n, 0 <= q <= 100$ ) — the number of vertices, the number of edges and $LCA$ triples remembered by Sandy respectively.

Each of the next $m$ lines contains two integers $u_i$ and $v_i$ ( $1 <= u_i, v_i <= n, u_i \neq v_i$ ) — the numbers of vertices connected by the $i$ -th edge. It's guaranteed that this set of edges is a subset of edges of some tree.

The last $q$ lines contain the triplets of numbers $a_i$ , $b_i$ , $c_i$ ( $1 <= a_i, b_i, c_i <= n$ ) . Each of these triples define $LCA(a_i, b_i) = c_i$ . It's not guaranteed that there exists a tree that satisfy all the given $LCA$ conditions.

## 输出格式

Print a single integer — the number of trees of size $n$ that satisfy all the conditions.

## 样例 #1

## 样例输入 #1

```
4 0 0
```

## 样例输出 #1

```
16
```

## 样例 #2

### 样例输入 #2

```
4 0 1
3 4 2
```

### 样例输出 #2

```
1
```

## 样例 #3

### 样例输入 #3

```
3 1 0
1 2
```

### 样例输出 #3

```
2
```

## 样例 #4

### 样例输入 #4

```
3 0 2
2 3 2
2 3 1
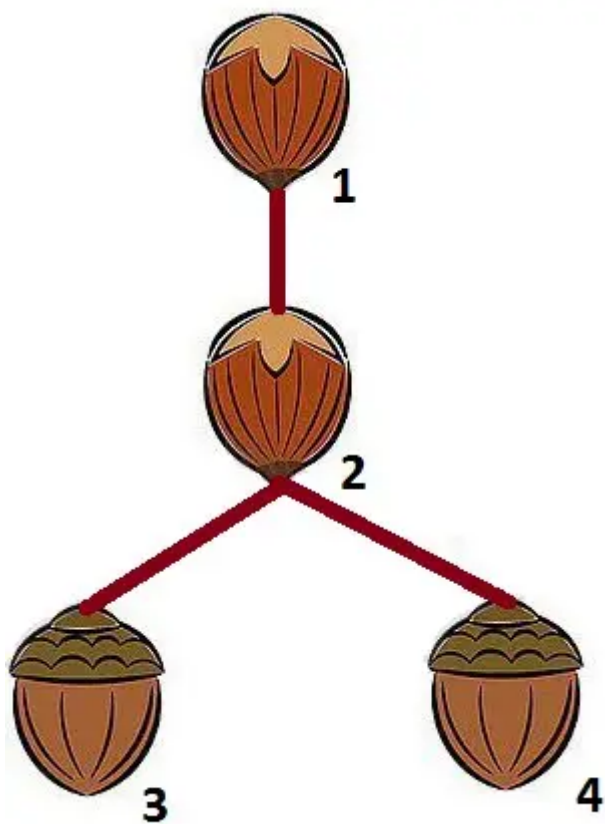```

### 样例输出 #4

```
0
```

## 样例 #5

## 样例输入 #5

```
4 1 2
1 2
2 2 2
3 4 2
```
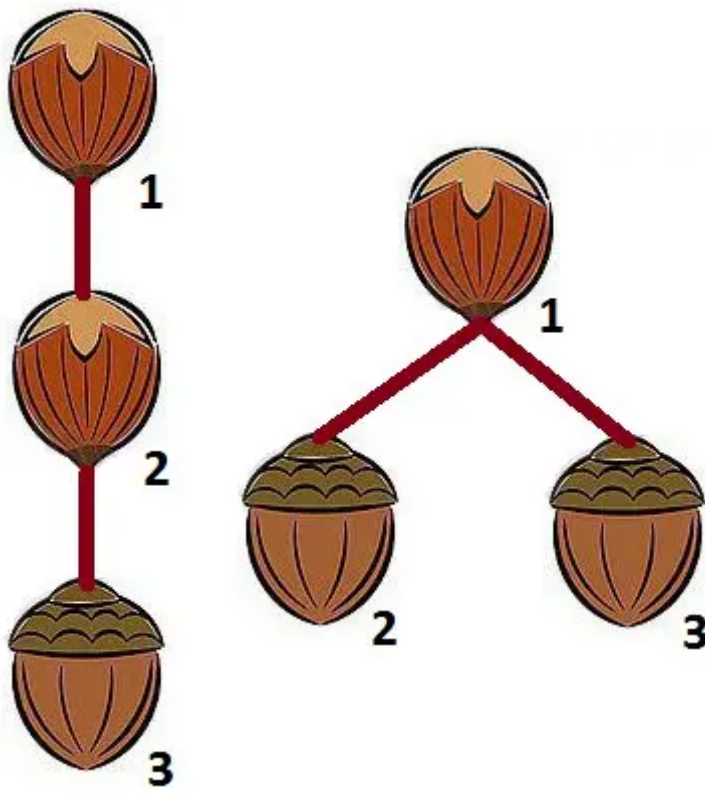
## 样例输出 #5

```
1
```

## 提示

In the second sample correct answer looks like this:



In the third sample there are two

possible trees:

In the fourth sample the answer is $0$ because the information about $LCA$ is inconsistent.