

# Grid

Your task in this problem is very straightforward. You are given a point in the cartesian plane  $(m,n)$  where  $m>0$  and  $n>0$ . You start at  $(0,0)$  and are allowed to make unit moves along the positive x-axis or the positive y-axis. In other word if you are at a point  $(x,y)$  you can move to either  $(x+1,y)$  or  $(x,y+1)$ . Your task is to find out the total number of ways you can reach  $(m,n)$  from  $(0,0)$  modulus  $K$ .

## Input

First line contains 'T', the number of testcases. The next 'T' lines contain three space separated integers  $m,n,K$   $1 \leq m,n \leq 1,000$   $K \leq 1,000,000$

## Output

A single integer denoting the total number of paths mod  $K$ .

## Example

**Input:**

```
1  
4 4 100
```

**Output:**

```
70
```