
double product

Input file: **standard input**
Output file: **standard output**
Time limit: 1 second
Memory limit: 256 megabytes

While mahdi was studying math as always , he found a math problem and he solved it very fast .

The statements of the problem are as follow : You are given three integers a , b and n and you need to find the number of pairs $(1 \leq x \leq n , 1 \leq y \leq n)$ such that $a \cdot x = b \cdot y$.

Let's see if you can beat mahdi and answer the question faster than him .

Input

First line contains only one integer q ($1 \leq q \leq 10^5$) — the number of the queries .

The next q lines each contains 3 space-separated integers a , b , n ($1 \leq a , b , n \leq 10^9$) — the numbers described in the problem statements .

Output

Print q lines , the i th line contains one integer — the answer of the i th query .

Example

standard input	standard output
5	3
2 3 9	9
3 3 9	2
1 5 10	0
5 4 2	20
1 1 20	

Note

In the first example the possible pairs are $(3, 2)$, $(6, 4)$ and $(9, 6)$.

It is preferred to use %I64d specifier to read the integers in the queries .