

XIV INTERNATIONAL AUTUMN TOURNAMENT IN INFORMATICS SHUMEN 2022

Task 3. Divide

Who doesn't love math 🙂

Let p, q and n be natural numbers. We will say that a pair of natural numbers (a, b) is **interesting** when:

- 1. $1 \leq a \leq p$
- 2. $1 \leq b \leq q$
- 3. $c = \frac{a * b}{a + b}$ is a natural number, and $1 \le c \le n$, that is the product a * b is divisible without remainder by the sum a + b, and their quotient is less than or equal to n.

The goal of this task is simple - find the number of interesting pairs!

Task

Write a program divide.cpp, that given the three numbers p, q and n, computes the number of interesting pairs.

Input

The only line of the standard input contains the numbers p, q and n.

Output

On the single line of the standard output, print the number of interesting pairs. It is guaranteed that the answer less than 10^{18} .

Constraints

$$1 \leq p, q, n \leq 10^{10}$$

Subtasks

N⁰	Additional constraints	Points
1	$1 \leq p, q, n \leq 2 * 10^4$	5
2	$1 \le p, q, n \le 2.5 * 10^7$	10
3	$1 \le p, q, n \le 2.5 * 10^8$	10
4	$1 \le p, q, n \le 2 * 10^9$	10
5	$n = 10^{10}, p = q$	10
6	$n = 10^{10}$	10
7	_	45

Points for a subtask are given only if all the tests for it have passed.

Examples

Input	Output
13 17 5	11