M Memory Management

You are working on your new problem for the Benelux Algorithm Programming Contest (BAPC): FizzBuzz. Given two natural numbers a and b, the contestant's program should print the natural numbers in ascending order, starting at 1, with three exceptions:

- If k is a multiple of a, the program should print "`Fizz`".
- If k is a multiple of b, it should print "`Buzz`".
- If both hold, it should print "`FizzBuzz`".

The floppy disk used for the BAPC. CC0 1.0 by Peter Astbury on Wikimedia Commons

Unfortunately, this year, the budget for the BAPC is rather minimal. Therefore, the output of the contestants is stored on floppy disks which can only hold 1440 KiB (1 474 560 bytes). It is your job to make sure that the correct output of a solution fits on such a floppy disk.

Given such a, b, and a natural number n, up to which integer k does the FizzBuzz sequence of k integers fit in n characters? Whitespace such as newlines or spaces should not be counted as characters.

An example of a FizzBuzz sequence of 11 integers for $a = 2$ and $b = 3$ is given by this string of length 37: "`1FizzBuzzFizz5FizzBuzz7FizzBuzzFizz11`".

Input

The input consists of:

- One line with two integers a and b ($2 \leq a, b \leq 1\,474\,560$).
- One line with an integer n ($1 \leq n \leq 1\,474\,560$), the number of bytes of storage available.

Output

Output the largest integer k, such that the FizzBuzz sequence from 1 up to and including k requires at most n bytes of storage.

Sample Input 1	Sample Output 1
2 3 10	3

Sample Input 2	Sample Output 2
2 4 15	5