Stamp the Matrix

You are given a rectangular matrix with **M×N**

number of square cells, with each cell having a size of 1×1

.

You are also given a number **K**

, which denotes the maximum number of stamps available to you.

Each of the **K**

stamps can cover a square cell of size 1×1

completely.

You are required to stamp the given matrix in such a way that the stamped cells will form a completely stamped **rectangle**.

Note: It is not necessary to use all the K

stamps.

Given the values of M

, N and K

, what is the largest possible area of the stamped rectangle you can have?

**Input Format:**   
First line contains T

, the number of test cases. T lines follow.   
Each line consists of 3 space separated numbers denoting M, N and K

.

**Output Format:**   
For each test case, print the answer, the largest possible area of the stamped rectangle you can have.

**Constraints:**   
1 ≤ T ≤ 250   
2 ≤ M, N ≤ 106   
2 ≤ K ≤ 1012

Sample Input

3

3 5 14

4 4 10

1000000 12345 1000000000000

Sample Output

12

9

12345000000

Explanation

**Test Case 1:** You have a matrix which is 3 cells wide and 5 cells tall. You don't have enough number of stamps to cover all 15 cells. There's no such way you can stamp 14 or 13 cells and still produce a stamped rectangle. So the best possible solution is to stamp 4 consecutive rows of cells, thus having an area of 12 square cells.

Note: Your code should be able to convert the sample input into the sample output. However, this is not enough to pass the challenge, because the code will be run on multiple test cases. Therefore, your code must solve this problem statement.