

Online, February 6-7th, 2025



frame • EN

# Choosing A Picture Frame (frame)

Tommaso is tired of the plain, empty walls at his university, so he decides to decorate them with photos and pictures. He has already chosen the perfect photo to start with, but now he faces a challenging task: finding the right frame.

Tommaso has a few specific requirements for the frame:

- It must be **rectangular** in shape.
- Its width and height must be integers.
- Its **area** must be exactly A.
- It must be at least as large as his photo, which has dimensions  $N \times M$  (i.e., the frame's width must be at least N and its height must be at least M).

Tommaso is eager to make a quick decision and avoid unsolicited opinions from art students. However, there are so many possible frames that he can't count them all on his own.

Can you help him determine how many frames meet his requirements?



Figure 1: A nice picture frame.

Among the attachments of this task you may find a template file frame.\* with a sample incomplete implementation.

#### Input

The input file consists of:

• a line containing integers N, M, the width and height of Tommaso's photo, and 64-bit integer A, the area of the frame.

## Output

The output file must contain a single line consisting of one integer: the number of possible frames that satisfy the requirements.

#### **Constraints**

- $1 \le N, M \le 10^9$ .
- $1 \le A \le 10^{12}$ .

frame Page 1 of 2

## **Scoring**

Your program will be tested against several test cases grouped in subtasks. In order to obtain the score of a subtask, your program needs to correctly solve all of its test cases.

- Subtask 1 (0 points) Examples.

- Subtask 2 (20 points) N = A.

- Subtask 3 (60 points)  $N, M, A \le 1000$ .

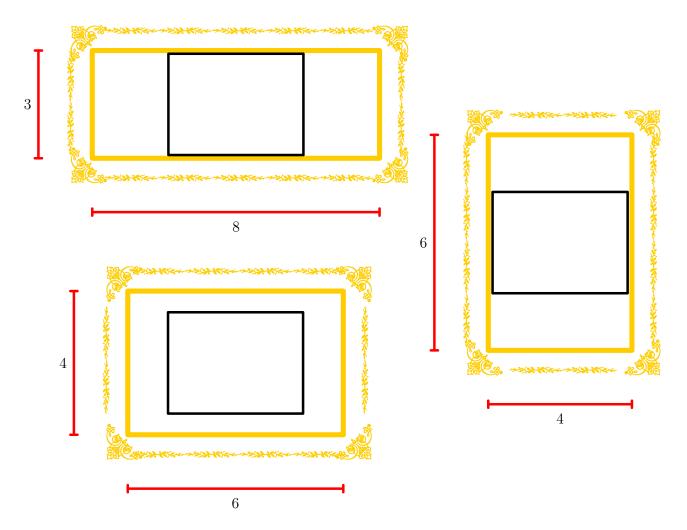
- Subtask 4 (20 points) No additional limitations.

## **Examples**

input	output
4 3 24	3

### **Explanation**

In the  $\mathbf{sample}$   $\mathbf{case}$ , there are 3 suitable picture frames:



frame Page 2 of 2