B. Two Cakes

time limit per test: 1 second
memory limit per test: 256 megabytes
input: standard input
output: standard output

It's New Year's Eve soon, so Ivan decided it's high time he started setting the table. Ivan has bought two cakes and cut them into pieces: the first cake has been cut into a pieces, and the second one — into b pieces.

Ivan knows that there will be n people at the celebration (including himself), so Ivan has set n plates for the cakes. Now he is thinking about how to distribute the cakes between the plates. Ivan wants to do it in such a way that all following conditions are met:

1. Each piece of each cake is put on some plate;
2. Each plate contains at least one piece of cake;
3. No plate contains pieces of both cakes.

To make his guests happy, Ivan wants to distribute the cakes in such a way that the minimum number of pieces on the plate is maximized. Formally, Ivan wants to know the maximum possible number x such that he can distribute the cakes according to the aforementioned conditions, and each plate will contain at least x pieces of cake.

Help Ivan to calculate this number x!

Input

The first line contains three integers n, a and b ($1 \le a, b \le 100$, $2 \le n \le a + b$) — the number of plates, the number of pieces of the first cake, and the number of pieces of the second cake, respectively.

Output

Print the maximum possible number x such that Ivan can distribute the cake in such a way that each plate will contain at least x pieces of cake.

Examples

input
5 2 3

output
1

input
4 7 10

output
3

Note

In the first example there is only one way to distribute cakes to plates, all of them will have 1 cake on it.

In the second example you can have two plates with 3 and 4 pieces of the first cake and two plates both with 5 pieces of the second cake. Minimal number of pieces is 3.