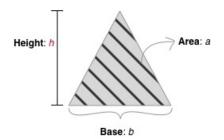
HackerRank

Minimum Height Triangle

Given integers b and a, find the smallest integer h, such that there exists a triangle of height h, base b, having an area of at least a.



Example

b = 4

a=6

Function Description

Complete the *lowestTriangle* function in the editor below.

lowestTriangle has the following parameters:

- *int b:* the base of the triangle
- int a: the minimum area of the triangle

Returns

ullet int: the minimum integer height to form a triangle with an area of at least a

Input Format

There are two space-separated integers \boldsymbol{b} and \boldsymbol{a}_{t} on a single line.

Constraints

- $1 \le b \le 10^6$
- $1 \le a \le 10^6$

Sample Input 0

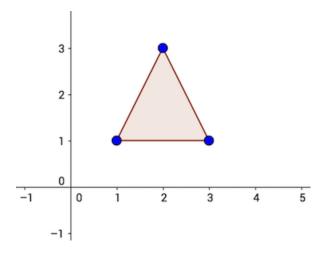
2 2

Sample Output 0

2

Explanation 0

The task is to find the smallest integer height of the triangle with base 2 and area at least 2. It turns out, that there are triangles with height 2, base 2 and area 2, for example a triangle with corners in the following points: (1,1),(3,1),(1,3):



It can be proved that there is no triangle with integer height smaller than 2, base 2 and area at least 2.

Sample Input 1

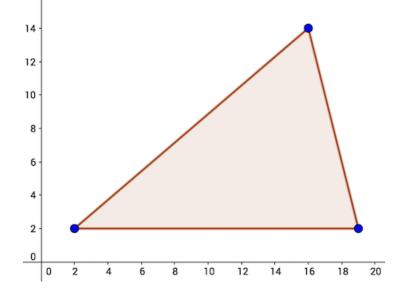
17 100

Sample Output 1

12

Explanation 1

The task is to find the smallest integer height of the triangle with base 17 and area at least 100. It turns out, that there are triangles with height 12, base 17 and area 102, for example a triangle with corners in the following points: (2,2), (19,2), (16,14).



It can be proved that there is no triangle with integer height smaller than 12, base 17 and area at least 100.