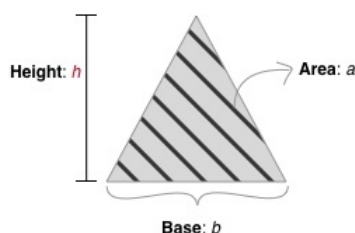


# Minimum Height Triangle

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  $a$ .



## Input Format

In the first and only line, there are two space-separated integers  $b$  and  $a$ , denoting respectively the base of a triangle and the desired minimum area.

## Constraints

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

## Output Format

In a single line, print a single integer  $h$ , denoting the minimum height of a triangle with base  $b$  and area at least  $a$ .

## Sample Input 0

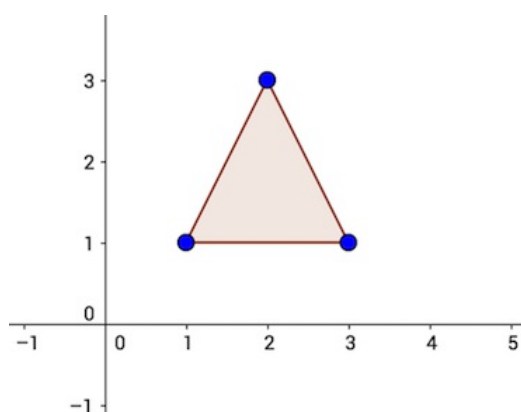
2 2

## 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:  $(1, 1)$ ,  $(3, 1)$ ,  $(2, 3)$ :



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

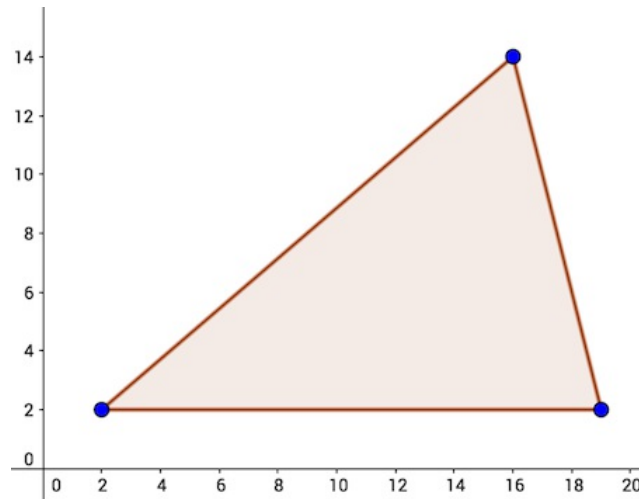
17 100

### 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**.