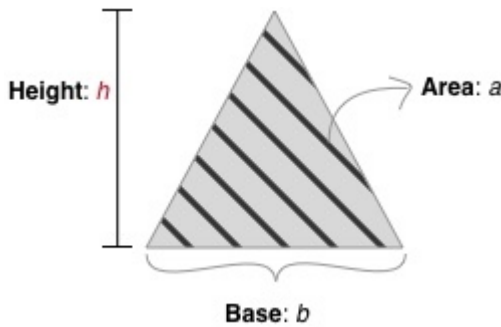


Problem G. Minimum Height Triangle

OS Linux

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

$$b = 4$$

$$a = 6$$

The minimum height h is **3**. One example is a triangle formed at points $(0, 0)$, $(4, 0)$, $(2, 3)$.

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

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

Input Format

There are two space-separated integers b and a , on a single line.

Constraints

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

Sample Input 0

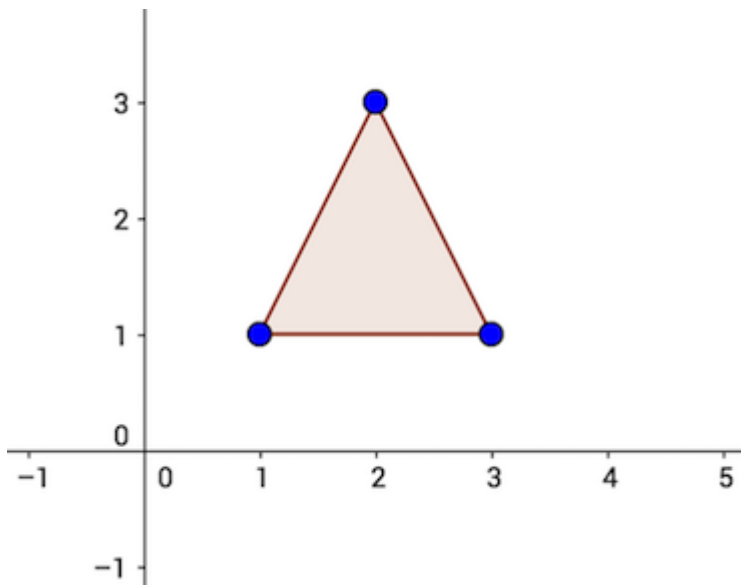
2 2

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



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

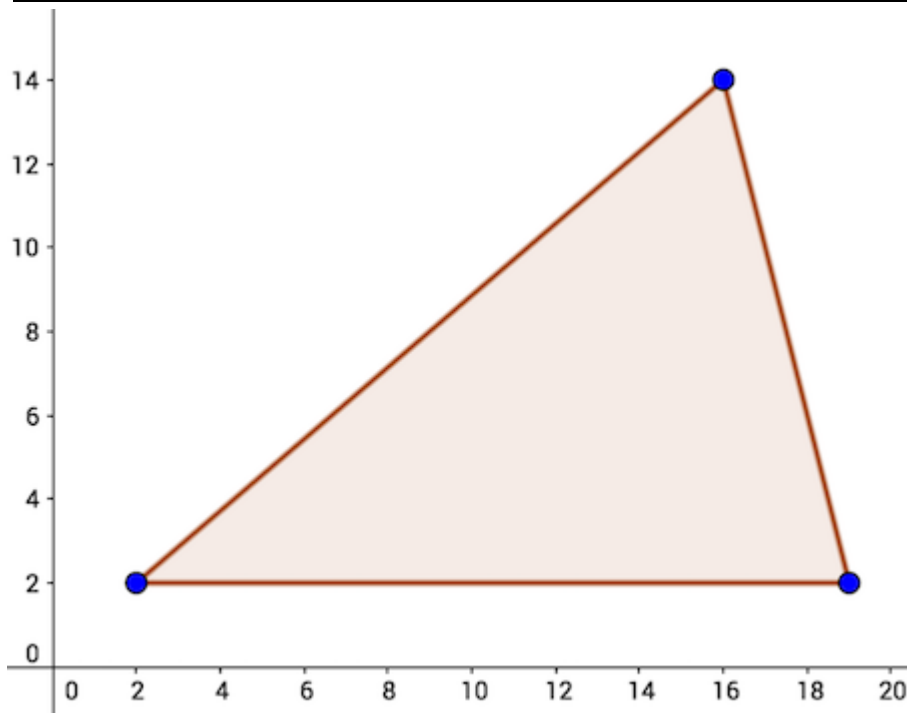
17 100

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**.