

Problem statement[Send feedback](#)

You are given two integers ' n ', and ' m '.

Calculate ' $\text{gcd}(n,m)$ ', without using library functions.

Note:

The greatest common divisor (gcd) of two numbers ' n ' and ' m ' is the largest positive number that divides both ' n ' and ' m ' without leaving a remainder.

Example:

Input: ' n ' = 6, ' m ' = 4

Output: 2

Explanation:

Here, $\text{gcd}(4,6) = 2$, because 2 is the largest positive integer that divides both 4 and 6.

Detailed explanation (Input/output format, Notes, Images)**Sample Input 1:**

9 6

Sample Output 1:

3

Explanation of sample output 1:

$\text{gcd}(6,9)$ is 3, as 3 is the largest positive integer that divides both 6 and 9.

Sample Input 2:

2 5

Sample Output 2:

1

Expected Time Complexity:

Try to solve this in $O(\log(n))$

Constraints:

$0 \leq n \leq 10^5$

Time Limit: 1 sec