

<https://course.acciojob.com/idle?question=1ef804ac-cdd8-4c40-8e97-f04bd4ae6249>

● EASY

● Max Score: 30 Points

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Greatest Common Divisor

Given 2 non negative integers m and n . Your task is to find the greatest common divisor of m and n .

GCD of 2 integers m and n is defined as the greatest integer g such that g is a divisor of both m and n . Both m and n fit in a 32 bit signed integer.

Note : Do not use library function

You have to complete `gcd` function which contains two integer inputs and return integer answer as output

Input Format

First Line contains two integer m and n separated by space.

Output Format

Print the maximum valued integer g which satisfies the above properties.

Example 1

Input

30 12

Output

6

Explanation

Here , gcd of 30 and 12 both is 6.

Example 2

Input

45 25

Output

5

Explanation

Here , gcd of 45 and 25 both is 5.

Constraints

$1 \leq m, n \leq 10^9$

Topic Tags

- Math
- Basics

My code

// in java

```
import java.util.*;  
import java.lang.*;
```

```
import java.io.*;

public class Main
{
    public static void main (String[] args) throws java.lang.Exception
    {
        //your code here
        Scanner s=new Scanner(System.in);
        int n=s.nextInt();
        int m=s.nextInt();
        while(n!=m)
        {
            if(n>m) n=n-m;
            else m=m-n;
        }
        System.out.print(m);
    }
}
```