

<https://course.acciojob.com/idle?question=07b30403-d04c-42f7-b610-8d5d3cac4b15>

- MEDIUM

- Max Score: 40 Points

Largest Coprime Divisor

You are given two positive numbers A and B. You need to find the maximum valued integer X such that:

X divides A i.e. $A \% X = 0$

X and B are co-prime i.e. $\text{gcd}(X, B) = 1$

Input Format

First Line contains two integer A and B separated by space.

Output Format

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

Example 1

Input

30 12

Output

5

Explanation

Largest Co-Prime divisor of 30 and 12 is 5

Example 2

Input

```
10 20
```

Output

```
5
```

Explanation

Largest Co-Prime divisor of 10 and 20 is 5

Constraints

```
1 <= A, B <= 1e9
```

Topic Tags

- **Math**

My code

```
// n java
import java.util.*;
import java.lang.*;
import java.io.*;

public class Main
{
    static int gcd(int a,int b)
    {
```

```

        return b==0?a:gcd(b,a%b);
    }

    public static void main (String[] args) throws
java.lang.Exception
    {
        //your code here
        Scanner s=new Scanner(System.in);
        int a=s.nextInt();
        int b=s.nextInt();
        int x=0;
        if(gcd(a,b)==1)
        { System.out.print(a); return;}
        while(gcd(a,b)!=1)
        {
            a=a/gcd(a,b);
            x=a;
        }
        System.out.print(x);
    }
}

```