845. Greatest Common Divisor

Given two numbers, number a and number b. Find the greatest common divisor of the given two numbers.

Example

**Example1**

Input: a = 10, b = 15

Output: 5

Explanation:

10 % 5 == 0

15 % 5 == 0

**Example2**

Input: a = 15, b = 30

Output: 15

Explanation:

15 % 15 == 0

30 % 15 == 0

Notice

In mathematics, the [greatest common divisor](https://en.wikipedia.org/wiki/Greatest_common_divisor" \o "Greatest Common Divisor) (gcd) of two or more integers, which are not all zero, is the largest positive integer that divides each of the integers.

<https://www.lintcode.com/problem/greatest-common-divisor/description>

int gcd(int a, int b)

{

    if (b == 0)

        return a;

    return gcd(b, a % b);

}