

---

## Recursive greatest common divisor

P42523\_en

---

Write a recursive function that computes the greatest common divisor of two natural numbers  $a$  and  $b$  using the *fast* version of the Euclidean algorithm.

### Interface

C++	<code>int gcd(int a, int b);</code>
C	<code>int gcd(int a, int b);</code>
Java	<code>public static int gcd(int a, int b);</code>
Python	<code>gcd(a, b) # returns int</code> <code>gcd(a: int, b: int) → int</code>

### Precondition

Neither  $a$  nor  $b$  are negative, and at least one of them is strictly greater than zero.

### Observation

You only need to submit the required procedure; your main program will be ignored.

### Problem information

Author : Jordi Petit

Translator : Carlos Molina

Generation : 2025-05-13 11:13:45

© Jutge.org, 2006–2025.

<https://jutge.org>