Jutge.org

The Virtual Learning Environment for Computer Programming

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++ int gcd(int \ a, int \ b);
C int gcd(int \ a, int \ b);
Java public static int gcd(int \ a, int \ b);
Python gcd(a, b) # returns int gcd(a: int, b: int) \rightarrow int
```

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: 2023-07-14 18:00:47

© *Jutge.org*, 2006–2023. https://jutge.org