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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

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