Python — Functions with numbers P84591_en

In this problem you must implement several functions in Python.

1. Write a function @absValue(x)@ that, given a number, returns its absolute value.
2. Write a function @power(x, p)@ that, given a number x and a natural p, returns x raised to p, that is, x^p.
3. Write a function @isPrime(x)@ that, given a natural, returns a Boolean that tells whether it is a prime number or not.
4. Write a function @slowFib(n)@ that, returns the n-th element of the Fibonacci sequence using the recursive algorithm according to its definition ($f(0) = 0, f(1) = 1, f(n) = f(n-1) + f(n-2)$ for $n \geq 2$).
5. Write a function @quickFib(n)@ that, returns the n-th element of the Fibonacci sequence using a faster algorithm.

Scoring

Each function scores 20 points.

Sample session

```
>>> absValue(-666)
666
>>> power(2, 3)
8
>>> isPrime(17)
True
>>> slowFib(5)
5
>>> quickFib(40)
102334155
```

Problem information

Author: Jordi Petit
Translator: Jordi Petit

Generation: 2026-07-06T08:56:06.150Z

© *Jutge.org*, 2006–2026.
https://jutge.org