

20th Test of primality and factorization of Lepore with Pythagorean triples (conjecture)

Given $N = p * q$ with p and q integer then there will be a Pythagorean triplet, with a smaller cateto N and the other two sides C and D (respectively cateto and hypotenuse), such that $\text{GCD}(N, C, D) = p$ or $\text{GCD}(N, C, D) = q$.

Therefore, having a table with the Pythagorean triples ordered by a minor cateto will be able to factor or establish primality in linear computational complexity.

Alberico Lepore 8 Gennaio 2018

contact twitter @albericolep

mail: albericolepore@gmail.com