

Proof of Infinite Prime Number

Abstract, simulates basic arithmetic logic, reasoning judgment and hypothesis contradiction.

Integer theory

Abstract hypothesis: finite number of prime numbers

From small to large in order of order P_1 , P_2 , P_3 , , , , P_n

Simulating basic arithmetic Logic: multiply from small to large

$$P_1 \times P_2 \times P_3 \times \dots \times P_n = N$$

Then , $N+1$

Is a prime or not a prime

Reasoning judgment :

If $N + 1$ is a composite number ,

set up : $W = P_1, P_2, P_3, , , , P_n$ (Arbitrary prime number)

$$(N+1) \div W$$

$N \div W$ (Satisfying integer solution)

$1 \div W$ (Unsatisfied integer solution)

Propositional condition is integer theory

but , $1 \div W$ (Unsatisfied integer solution) , Belong to fraction.

Does not belong to integer theory

So $N + 1$ is a composite or a prime.

$N+1$ The factorized prime factor is certainly not assumed. $P_1, P_2, P_3, , , , P_n,$

Inside

There are also other prime numbers in addition to the assumed finite number of

prime numbers. So the original assumption is not true. That is, there are infinitely many prime numbers.

Note: this article belongs to Euclidean academic theory ,

But I need to quote Euclidean theory to prove my theory in mathematics.

So the Euclidean theory is analyzed and rewritten.

Welcome to comment on my article

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