

The last theorem of Fermat. The simplest proof

In Memory of my MOTHER

The contradiction:

The Fermat equality does not hold over $(k+1)$ -th digits, where k is the number of zeros at the zeroes end of the number $U=A+B-C=un^k$.

So, let's assume that for co-prime natural numbers A, B, C and prime $n > 2$:

1°) $A^n+B^n=C^n$, or $A^n+B^n-C^n=0$, where

2°) $U=A+B-C=un^k$, where u is not divisible by n .

Proof of the FLT

After deleting the k -digit terminations $A^\circ, B^\circ, C^\circ$ in numbers A, B, C (written in base n), in the remaining part of equality

3°) $A^n+B^n-C^n=0$ the sum of the last digits $D=A'+B'-C'$, according to Fermat's small theorem, is not equal to zero or n .

However, the recovery in numbers A, B, C of discarded k -digit endings $A^\circ, B^\circ, C^\circ$ cannot affect the values of $(k+1)$ -th digits in degrees A^n, B^n, C^n , because they do not depend on the k -digit endings of the bases (a consequence of Newton's binomial).

This testifies to the truth of Fermat's great theorem.

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