

About Fermat's truly marvellous proof of FLt

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Abstract

A truly marvellous proof of FLt may be real as Fermat mentioned

Around 1637, Fermat wrote his Last Theorem in the margin of his copy of the *Arithmetica* next to Diophantus's sum - of - squares problem .

It is impossible to separate a cube into two cubes, or a fourth power into two fourth powers, or in general, any power higher than the second, into two like powers. I have discovered a truly marvellous proof of this, which this margin is too narrow to contain. [1]

We have found a short proof of FLt, the way is summarized as follows:

$$a^n + b^n = c^n$$

By operation 1:

$$\Rightarrow a = a_1, b = b_1, c = c_1$$

By operation 2:

$$\Rightarrow a_1 = a_2, b_1 = b_2, c_1 = c_2$$

By operation 3:

$$\Rightarrow a_2 = 0 \text{ or } b_2 = 0$$

The operations above contain the elementary formulas only.

We can claim that there are no counterexamples of FLt.

References

- [1] Fermat's Last Theorem - Wikipedia
- [2] Quang N V, A proof of the four color theorem by induction Vixra: 1601.0247 (CO), Semantic Scholar.org :124682326
- [3] Quang N V, A new solvable quintic equation of the shape $x^5 + ax^2 + b = 0$ Vixra: 2011.0165 (AL)

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