On the question of the relationship of the elliptic curve Frey with "Great" Fermat's theorem

(Elementary aspect)

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Annotation. Interest in the title problem is caused by the following considerations:

1) Take, for example, "Pythagoras' equation, all of which are relatively prime solutions determined Delyan formulas A= a^2- b^2 and B=2ab. But if we choose A≠ a^2- b^2 and B≠2ab both hypo-Tethyan "correct" solutions of this equation, then perhaps it will be possible to prove that, in this case, "Pythagoras" equation exists. But it really does not exist for the selected hypothetically "true" solutions.

2) The equation $A^N + B^N = C^N$ and the equation of the elliptic curve Frey (as will be shown below for the proposed options to solve them) are not compatible.

3) Therefore, it seems, it does not look quite convincing relationship between the equation elliptic curve Frey Farm and the corresponding equation.

4) Supplement.

§1

Consider the following equation:

1) $A^N + B^N = C^N$ (2) where A^N, B^N- theoretically "correct" solution of equation (2) eg natural number (A,B)=1,N, corresponding to the general equation x^N+ y^N= z^N (1).

2) y^2 + (x- A^N)(x+ B^N) = y^2+ $x^2 - (A^N - B^N)$x - $A^N.B^N$=0 (3). Hence, the proposed Ba Rianta solution of equation (3) obtained by A $A^N > B^N$, x= $A^N - B^N$, y^2= $A^N.B^N$, ie. at N = 2k - even (option assumptions) and y= $|A^kB^k|$. If (3) - elliptical Frey, it exists.

3) y^2= $x^3 - (A^N - B^N)\, x^2$+ $A^N B^N$ (4). If (4) - Frey elliptic curve, it exists when x= $A^N - B^N$,y= $A^k B^k$ and N = 2k - even. Equations (4) and (3) are compatible.

4) y^2= x^3+ ($A^N - B^N$) x^2_ $A^N B^N$ (5). Clearly, (5) and (3), (4) is not compatible, but not all of them

in conjunction with (1).

5) Let a= x^3, b=($A^N - B^N)x^2 - A^N B^N$.
Then, a^2 + b^2 ±2ab = $(a \pm b)^2$ = { x^3± [($A^N - B^N)x^2$ - $A^N . B^N$] }^{2} (6). Equations (4) and (5) interconnected elements "Pythagoras' equation for arbitrary positive values of parameters contained in them.

6) The connection of these equations with equation (1) is not quite convincing.

§2

Supplement.

An identity: x($x^3 \pm 2y^3$)]$^3 \mp [y(2x^3 \pm y^3)]^3 \equiv (x^3 \pm y^3)(x^3 \mp y^3)^3$ (7).

If we take into the equation $a^n + b^n = c^n$ for n=3 $x^3 + y^3$= z^3 (8), (7) we obtain

the recurrence equation, giving innumerable hypothetical "true" solutions (this cannot be, since the identity is true for all 0< $x < \infty, 0 < y < \infty$), then the equation (8) solutions in natural numbers for n = 3 have, as is known, can not. It turns out that there is an equation that as if on the one hand, with a hypothetical "true" solutions can not exist, on the other hand, under the same «x» and «y» exists. It should be noted that the equations (7) and (8) are compatible.

- Since the solution of the equation (8) is among the natural 0< $x < \infty, 0 < y < \infty$. the validation solutions will take longer than the decision itself. Reminds problem Cook-Levin - one of the challenges of the Millennium.

Generally, the identity (7) - the identity of a number of interesting properties. [1]

Literature.

[1] R. Tint, "The identities of ordinary which is leading to the extraordinary consequences" (elementary aspect), p.2.6, pp 8 / 15-12 / 15.Asian Gournal of mathematics and applications in 2013, IDama0031, ISSN 2307-7743 http://scienceasia.asia