Reuven Tint

Number Theorist, Israel

Email: reuven.tint@gmail.com

www.ferm-tint.blogspot.co.il

USING THE METHOD OF INFINITE RISE TO OBTAIN CERTAIN TYPES OF SOLUTIONS OF THREE-TERM EQUATION TH (ELEMENTARY ASPECT)

ИСПОЛЬЗОВАНИЕ МЕТОДА БЕСКОНЕЧНОГО ПОДЪЕМА ДЛЯ ПОЛУЧЕНИЯ НЕКОТОРЫХ ТИПОВ РЕШЕНИЙ ТРЕХЧЛЕННЫХ УРАВНЕНИЙ (ЭЛЕМЕНТАРНЫЙ АСПЕКТ)

Annotation. An infinitely lifting method for making certain types of three-term equations, which is completely refuted by the ABC conjecture.

Keywords: three-term equation, the method of infinite growth, elementary aspect.

Аннотация. Использован метод бесконечного подъема для получения некоторых типов решений трехчленных уравнений, которыми полностью опровергается авс-гипотеза.

Ключевые слова: трехчленные уравнения, метод, бесконечный подъем, элементарный аспект.

§1

Theorem. "For all three are relatively prime positive integers a, b, c, such that $(a_{0=}\ a^{x})$+ $(b_0 = b^{y}) = (c_0 = c^{z})$, for x> 0, y> 0 are arbitrary real positive numbers, $z = \frac{\ln(a^{x}+b^{y})}{lnc}$), runs in an infinite number of cases $c_{\propto}^{2} > \mathrm{rad}(a_{\propto} b_{\propto}\ c_0)$".
(1)

Evidence

1.1. We have (1) for positive numbers $a_0, b_{0,,} c_0$ the equation $a_0 + b_0 = c_0$ (2).

From (2) $(\sqrt{a_0})^2$+$(\sqrt{b_0})^2$=$(\sqrt{c_0}\,)^2$ (3). Let us assume (3) 1) $m_1 = \sqrt{a_0}$, n_1=$\sqrt{b_0}$,

$a_1 = m_1^2$- n_1^2=| a_0 - b_0|, b_1 =2$m_1 n_1$=$2^{\propto=1}$. |$\sqrt{a_0 b_0}$ | , $c_1 = m_1^2 + n_1^2$= (a_0 + b_0)= c_0, c_1^2= $c_0^{2^{\propto=1}}$.

2) $m_2 = a_1 = |a_0 - b_0|$, $n_2 = b_1$ =2|$\sqrt{a_0 b_0}$ |, $a_2 = m_2^2 - n_2^2$=($a_0 - b_0)^2$-(2$\sqrt{a_0 b_0})^2$,

$b_2 = 2m_2 n_2$=2^2|$(a_0 - b_0)$|. |$\sqrt{a_0 b_0}$| , $c_2 = m_2^2 + n_2^2$= c_0^2 , $c_2^2 = c_0^{2^{\propto=2}}$.

etc.

....

∝) $b_\propto$=($b_\propto$: $2^\propto$). $2^\propto$, $c_\propto^2 = c_0^{2^\propto}$, ∝=1,2,3,..........,.

1.2. Statement. "Each equation (2) is the source for in countless cases of "exceptional" triples such that $c_\propto^2 = c_0^{2^\propto} > rad(a_\propto\, b_\propto\, c_0)$, starting with some "∝ ", If only $m_\propto = a_{\propto-1}$, $n_\propto = b_{\propto-1}$",

and so recursively to infinity.

Evidence

1.2.1. We have the identity: $c^6 - a^6 - b^6 \equiv 3a^2b^2c^2$, if $a^2 + b^2 = c^2$; $a, b, c - relatively\ prime$

$integers$. Definitions of $3a^2b^2c^2 < c^6$ и $c^2 > |ab|$.

1.2.2. Always at some point in the infinite series $2^1, 2^2, 2^3, \ldots \ldots, 2^\propto$ .... There

"∝ " such, that in " $b_\propto$" $factor\ 2^\propto > c_0$ (endless lifting method). Hence, $c_\propto^2$=$c_0^{2^\propto} > rad(a_\propto b_\propto c_0)$.

1.23. Thereby completely proved Theorem (1).

Examples:

1) For x=y=z=1 3+2=5 $(a^{\frac{1}{2}})^2 + (b^{\frac{1}{2}})^2 = (c^{\frac{1}{2}})^2$. Take $m_1 = 3^{\frac{1}{2}}$, n_1=$2^{\frac{1}{2}}$. Than,

$a_1 = m_1^2 - n_1^2 = 3 - 2 = 1,\ \ b_1 = 2m_1\, n_1 = 2^{\propto=1}\, .6^{\frac{1}{2}},\quad c_1 = m_1^2 + n_1^2 = 5,\ \ c_1^2 = c^{2^{\propto=1}} = 5^{2^{\propto=1}} <$

rad(2.3.5)=30.

2) $m_2 = a_1 = 1\,,\ \ n_2 = b_1 = 2.6^{\frac{1}{2}},\ \ a_2 = 23,\ \ b_2 = 2^{2^{\propto=2}}.6^{\frac{1}{2}},\ \ c_2 = 5^2,$

$c_2^2 = c^{2^{\propto=2}} = 5^4 = 625 < rad(23.2.3.5) = 690.$

3) $m_3 = a_2 = 23,\ n_3 = b_2 = 2^2.6^{\frac{1}{2}},\ a_3 = 433,\ b_3 = 2^{\propto=3}.23.6^{\frac{1}{2}},\quad c_3 = 5^{2^{\propto=3}},$

$c_3^2 = c^{\propto=3} = 5^8 = 390625 > rad(433.2.3.5) = 12990,\ etc. recurrently\ to\ infinity.$

Option x=y =z=2 published. [1]

§2

Final statement of the theorem (1): "For all three are relatively prime positive integers a, b, c, such that $a^x + b^y = c^z$, where x$> 0, y > 0 -$ arbitrary real positive numbers, z=$\frac{\ln(a^x+b^y)}{\ln c}$, beginning with a "∝", is performed in an infinite number of cases of inequality $c_\propto^2 = c^{2^\propto} > rad(a_\propto b_\propto c)$, *if only* $m_\propto = a_{\propto-1}\,, n_\propto = b_{\propto-1}$, *used in equation* $a_\propto^2 + b_\propto^2 = c_\propto^2$ *by* $a_\propto = a_{\propto-1}^2 - b_{\propto-1}^2,\ b_\propto = 2a_{\propto-1}b_{\propto-1}\,, c_\propto = a_{\propto-1}^2 + b_{\propto-1}^2$

(endless lifting method)». *(4)*

§§1 foregoing, and 2 completely refuted by the ABC conjecture.

Literature

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