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**Fermat's Last Theorem Accurate Method**

**By Ion Murgu - From Ohio, USA**

**With a Contribution From:**

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**and**

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**this material was Edited via a FREE L<sup>A</sup>T<sub>E</sub>X version**

**OBSERVATION:**

**As you will see in further material I Had The Dare to  
name, Ion Murgu Integers Powers Fundamental  
Equations - Humanity Science Thesaurus- , because in  
relative mode SOLVED instantly**

**Fermat's Last Theorem**

**and brought a lot for future in math, any maybe only for curiosity  
but a lot for practices needs.**

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## 1 Introduction

Two Years and The half Ion Murgu - Integers Powers  
fundamental Equations INTERDICTED By ignoring is  
the best proof are - HUMANITY SCIENCE

THESAURUS - .

Motto : Fermat's Last Theorem - 400 years of mind  
fatigue and stress, please forgive My if in My mind Jesus  
helped My to pass over Nights and Days of Extreme  
Fatigue working not at Fermat's Last Theorem , but to  
any essences which will bring us here too. With all  
respect for all our Geniuses(old and actually) and with  
all honesty I DECLARE Ion Murgu Integers Powers  
Fundamental Equations, our Biggest Humanity  
Discovery, and I said it not to remark myself, but to  
remark it for Science, and even for our Culture.

•

ONLY AND ONLY, Ion Murgu Integers Powers  
Fundamental Equations can CERTIFY  
Fermat's Last Theorem , VIA an Analytic Math  
Method named, maybe improper, Fermat-Murgu  
Impossible Equations. Ion Murgu Integers Powers  
Fundamental Equations lighted totally  
Fermat's Last Theorem , Generalize it by sending all  
Fermat Equations Solutions Into Irrational Field (If One  
Integers 2 are Irrationals or all 3 Irrationals)  
Clarify Pythagorean Triple as Fermat's Last Theorem  
EXCEPTIONS which Confirm The Rule. Pythagorean  
Triple are Evolving by Irrationals Fermat Equations

---

solutions via multiply with an Irrational which is also the single Euler Murgu Equation  $1=1$ , exception, coming from powering for  $n=2$  have symmetry for multiply.)

Brought via an accurate and clear Mathematically Method (Fermat-Murgu Impossible Equations)first Math connection whit our conservations laws into planar space

by blessing Pythagorean Triple as

Fermat's Last Theorem EXCEPTIONS over OUR UNITY RELATIVITY which is ideal case in a static world, but cover our until now intuitive and experimental dependencies

$$\frac{1}{R^2}$$

.

Brought a New Group, like Pythagorean Triple for power 2, FERMAT-MURGU QUADRUPLETS for power 3, which denoted last non divergent conjecture, Ion Murgu Conjecture our Triples Conjecture to Unity -

$$x^3 + y^3 = z^3 + 1$$

and

$$x^3 + y^3 = z^3 - 1$$

Brought FERMAT-MURGU n MEDIA, A COMPOSITE sum which connect n predecessors or ancestors of a Integers at power n with  $n!$ .

$$\sum_{I=n}^0 (-1)^m * (K_{nI}) * (T + I)^n = n!$$

---

Brought ION MURGU GOD EQUATIONS OF BALANCE, named so as a pertinent reply to Euler God Equation. But the importance of ION MURGU GOD EQUATIONS OF BALANCE is over because connect all our Integers containing also encapsulated all Irrationals into infinity to infinity equations with Math Value ABSOLUTE TRUTH.

$$\sum_{I=0}^n (-1)^m * (K_{nI}) * ((Z + I)^n - (T + I)^n) = 0$$

and

$$\frac{\sum_{I=n}^0 (-1)^m * (K_{nI}) * (Z + I)^n}{\sum_{I=n}^0 (-1)^m * (K_{nI}) * (T + I)^n} = 1$$

DOESN'T MATER Z OR T IS INFINITY.

•

Those been motivations for which I had the dare to name Ion Murgu Integers Powers Fundamental Equations - HUMANITY SCIENCE THESAURUS - and that doesn't mean is a End of Science, but can be a new beginning or at the last a step in a re logic for without to promise nothing but a hope for. Then take it as a provocation for a constructive controversial, and friendly one.

•

To understand Euler - Murgu Equation  $1=1$ . , maybe is needed a short recapitulation for Ion Murgu Integers Powers Fundamental Equations and then for Fermat-Murgu Impossible Equations.

---


$$\sum_{I=n}^0 (-1)^m * (K_{nI}) * (T + I)^n = n!$$

**Ion Murgu Integers Powers Fundamental Equations** are IDENTITIES which for every Integers T at power n with  $T, n \in \mathbb{Z}$  reveal an absolute truth connection between  $(n + 1)$  consecutive Powers for every T- Integer .

This also, define a primary form for **Fermat-Murgu n Media** which because of additive property for, can connect also k-th Integers at power n.

Ion Murgu Integers Powers Fundamental Equations are IDENTITIES WITH value ABSOLUTE TRUTH, THEN THE ANSWER in any applications where can be used , also, will be an absolute truth answer.

## 2 Integers Powers Fundamental Equations

Ion Murgu Integers Powers Triangles are the triangles which, for every  $n \in \mathbb{Z}$  , connect  $(n + 1)$  consecutive Integers at power n with factorial of n. If analyze any n+1 consecutive Integers at power n using next method: make a table with  $(2n+1)$  colons and n rows, In first row first colon write  $(Z)^n$  , next colon let free, third colon  $(Z + 1)^n$  , then free space, and so on the last colon will be  $(Z + n)^n$  . Now in second row under free spaces will be the differences between right and left terms of superior row, and so on for next .. After n differences you will obtain a single term which will be  $(n!)$  .

Table 1: Ion Murgu Integers Powers Triangle

$(Z^n)$	EMPTY	$(Z - 1^n)$	Emty	aaa	a	$(Z - n)^n$
....	$Z^n - (Z - 1)^n$	.....	.....	.....	$(Z - n + 1)^n - (Z - n)^n$	.....
....	.....	.....	.....	...	.....	.....
....	....	Any1	...	Any 2	.....	.....
....	.....	....	$n!$	...	.....	.....

This is perfect valid also for its inverse , and is better then , because avoid the restriction of choosing  $(Z > n)$ , and then avoiding any mistakes.

$(Z + n)^n$	EMPTY	$(Z + n - 1)^n$	Emty	...	.....	$(Z)^n$
....	$((Z + n)^n - (Z + n - 1)^n)$ .	.....	.....	.....	$((Z + 1)^n - Z^n)$	....
....	.....	.....	.....	...	.....	....
....	....	Any1	...	Any2	.....	.....
....	.....	....	$(n!)$	...	.....	.....

Table 2: Ion Murgu Integers Powers Triangle 2

Sorry for inverse Mirroring ! This was my first approach of , and disarmed my then , because of any calculus errors. I was young , and trusted to much my calculus. This method is a method valid for easy test, because imply the work directly with the powers. And after the positive test, you can go to a formula. But after a long time , re provoked by Brachistochrone problem , presented on INTERNET in 2015, August, I returned to my old calculus and I get where I make mistakes, and observed I was right to luck in this direction. Then I completed.

### 2.1 Mathematical Presentation-Getting Formula

The same result can be obtained , but imply more work , by writing every  $(Z^n)$  ,  $(Z - I)^n$  as  $F(t)$  and and making the calculus you will get  $\{F(n) - K1nF(n - 1) + ... + F(0) = n!\}$  or  $\{F(n) - K1nF(n - 1) + ... - F(0) = n!\}$  . Trying it For Powers 2,3,4,5,6,7 I get The waited which isn't very heavy I get The same result and The Formula . After Calculus in this mode into formula the old



connected to in a beautiful mode and will be stoned to see are included in directly powers Method also. So , making calculus for every power 3,4,5 6 and 7 separately and observing the redundancy, I make a program in Visual Basic and then in Java on Applet which to generalize, and to proof it, both worked , but on restricted areas . Lucking for performance I meet soon Perl with its Module BigIntegers and BigFloat , and started a new one which is working now at: [www.lifeclimatic.com/mmc.pl](http://www.lifeclimatic.com/mmc.pl) for powers ( $n < 51$ ) and will be extended. A Software without limits of powers used can be made also , but because of generating every time the Coefficients table will be hard times responsible.

1	1
2	1, 2 ,1
3	1,3,3,1
4	1,4,6,4,1
5	1,5,10,10,5,1
6	1,6,15,20,15,6,1
7	1,7,21,35,35,21,7,1
8	1,8,28,56,70,56,28,8,1
9	1,9,36,84,126,126,84,36,9,1
10	1,10,45,120,210,252,210,120,45,10,1
11	1,11,55,165,330,462,462,330,165,55,11,1
12	1,12,66,220,495,792,924,792,495,220,66,12,1
13	1,13,78,286,715,1287,1716,1716,1287,715,286,78,13,1
14	1,14,91,364,1001,2002,3003,3432,3003,2002,1001,364,91,14,1

Table 3: Integers Powers Triangle -Coefficients Table.

## 2.2 Formula

$$\sum_{I=n}^0 (-1)^m * (K_{nI}) * (T + I)^n = n! \quad \text{Ion Murgu -}$$

Integers Powers Fundamental Equations

Where ( $m = I$ ) for n even (par) and ( $m = I + 1$ ) for n odd and ( $K_{nI}$ ) coefficients contained into Integers Powers Triangle -Coefficients Table and n isn't a power in , instead of  $((Z - I)^n)$  , where n is power.. At this time

Formula same to be covering only  $\mathbb{N}$  but only about sign convention and about a double asymmetry introduced by unity, then this can be considered as having its proper image into  $\mathbb{Z}$ , excluding maybe, the area around ZERO where double unbalance from UNITY is speaking, but for further research I remind we meet it also in modern Math, and Riemann is there, in a sense, and it can be a non pertinent remark, because of a not totally analyze, the problem is the same. Anyway a easy way to get FORMULA (Ion Murgu - Integers Powers Fundamental Equations), I will describe with an example also. If will note for an Integer ( $Z > n$ ): with  $f_0 = (Z - n)^n$ ,  $f_1 = (Z - n + 1)^n$ , .....  $f_{n-1} = (Z - 1)^n$ ,  $f_n = (Z)^n$  and will make a table: (the dimension is orientable)

$f_0$	...	$f_1$	....	$f_{n-1}$	....	$f_n$
....	$(f_1 - f_0)$	....	....	....	$(f_n - f_{n-1})$	....
....	...	....	....	....	....	....
....	...	any	....	any	....	....
....	...	....	FORMULA	....	....	....

Table 4: Getting Formula Orientable Table

$$\sum_{I=n}^0 (-1)^m * (K_{nI}) * (T + I)^n = n! \quad \text{Ion Murgu -}$$

Integers Powers Fundamental Equations

Integers Powers Fundamental Equations R Sided.

$f_0$	...	$f_1$	....	$f_2$	....	$f_3$
....	$(f_1 - f_0)$	....	$(f_2 - f_1)$	....	$(f_3 - f_2)$	....
....	...	$(f_2 - 2 * f_1 + f_0)$	....	$(f_3 - 2 * f_2 + f_1)$	....	....
....	...	....	$(f_3 - 3 * f_2 + 3 * f_1 - f_0)$	....	....	....

Table 5: Getting Formula for ( $n = 3$ )

When I get The formula, into 2015,I published this form, which will have first term negative, because then I didn't pay attention to sign but to work. For it I yet keep this form as reminder of.

$$\sum_{I=n}^0 (-1)^m * (K_{nI}) * (T + I)^n = n!$$

Integers Powers Fundamental Equations R Sided.

when real is good to use

$$\sum_{I=0}^n (-1)^m * (K_{nI}) * (Z - I)^n = n!$$

Integers Powers Fundamental Equations R Sided.

ION MURGU INTEGERS POWERS FUNDAMENTAL EQUATIONS ARE identities - **IDENTITIES** and for every Z Integer , with  $|Z| > |n|$  this is valid , but for all  $\mathbb{Z}$  and n as power The Form is :

$\sum_{I=n}^0 (-1)^m * (K_{nI}) * (Z + I)^n = n!$ <p>Integers Powers Fundamental Equations L Sided.</p>
---

Table 6: Integers Powers Fundamental Equations

$$\sum_{I=n}^0 (-1)^m * (K_{nI}) * (Z + I)^n = n!$$

Integers Powers Fundamental Equations L Sided.

---

have property of addition and if will note , left side sum as  $S_Z$  is clear for same n :

1.  $(S_Z + S_Z) = 2n!$
2.  $(S_Z + S_T) = 2n!$
3.  $(S_Z - S_R) = 0$
4.  $(S_Z - S_T) = 0$
5. and so on all combinations

where Z,R,T are are positive Integers or negative in the same time. But also:

1.  $\left| \frac{S_Z}{S_T} \right| = 1$
2.  $\left| \frac{S_Z}{S_R} \right| = 1$
3.  $\left| \frac{S_R}{S_T} \right| = 1$

3,4 from first Items , and all for second have Equivalence but because of theirs relative assembly around of **0 and 1** , because of utility, and as a pertinent reply to Euler God Equation I named those ION MURGU - GOD EQUATIONS OF BALANCE.

### 3 Fermat-Murgu Impossible Equations-presentation

I named it so, because reveal The impossibility for  $n > 2$  as

$$X^n + Y^n - Z^n = 0$$

---

to have any solutions into Integers . For it we applied the property of additivity of **Fermat-Murgu n Media** to  $(X,Y,Z)$ ,  $(X-1,Y-1,Z-1)$  and we can do it for  $\frac{n+1}{2}$  into the left side and the same to the right, but for our scope will be enough one to left and its proper one. Doing it for  $(X,Y,Z)$ , we get **Fermat-Murgu First Grade Impossible Equations** which reveal as, Fermat Equations to have all solutions into integers , then, **Fermat-Murgu n Media** for 3 Integers associated will be unbalanced .

$$X^n + Y^n - Z^n = 0$$

$$\begin{aligned} & \sum_{I=n}^1 (-1)^m * (K_{nI}) * (X + I)^n \\ & + \sum_{I=n}^1 (-1)^m * (K_{nI}) * (Y + I)^n \\ & - \sum_{I=n}^1 (-1)^m * (K_{nI}) * (Z + I)^n + \\ & = n! \end{aligned}$$

as see, last term is missed, but because for  $n=2$  this have validity, to say, is our sense of false perception, and it maybe is also possible for any  $n$ 's. Then to make the same for next left neighbor  $(X-1,Y-1,Z-1)$  , and after an easy matrices calculus , which with any skill can be intuitive because of symmetry on, we GET.

---


$$\begin{aligned}
& \sum_{I=n}^2 (-1)^m * (K_{nI}) * (X + I - 1)^n + \\
& \sum_{I=n}^2 (-1)^m * (K_{nI}) * (Y + I - 1)^n \\
& - \sum_{I=n}^2 (-1)^m * (K_{nI}) * (Z + I - 1)^n + \\
& (X - 1)^n + (Y - 1)^n - (Z - 1)^n = n!
\end{aligned}$$

and obtained from above' its coupled  
 $n(X^n + Y^n - Z^n) = 0$   
Do not simplify, HERE IS hide a truth.

**Fermat-Murgu n Media** for 3 neighbors associated to X,Y,Z  
brookd drastically and a Big surprise . As, Fermat's Last  
Theorem for  $n > 2$ , all solutions need to be Irrationals at the base.

$n(X^n + Y^n - Z^n) = 0$   
Do not simplify, HERE IS hide a truth.

**CERTIFY Fermat's Last Theorem**

**That mean :**

$$n(X^n + Y^n - Z^n) = U^n + V^n - W^n$$

---

With  $U^n + V^n - Z^n = 0$  also and to be solutions into Integers for Fermat's Last Theorem , but in the same time for our X,Y,Z - Integers to satisfy:

$$\begin{aligned} U &= \sqrt[n]{n}X \\ V &= \sqrt[n]{n}Y \\ W &= \sqrt[n]{n}Z \end{aligned}$$

Those Identities are Impossible, because we do not have

$$U = \sqrt[n]{n}X$$

an Integer multiplied with an Irrational Number never will be an Integer, we started from supposed X,Y,Z Integers. Period.

But to put it in a Mathematic contest,

Starting from a supposed solutions into Integers for:

$$X^n + Y^n - Z^n = 0$$

We know if - then:

$$J^n(X^n + Y^n - Z^n) = 0$$

As Infinite valid Images. But also

$$J(X^n + Y^n - Z^n) = 0$$

which have Fermat Equations related solutions (if), only for  $J = k^n$  with k Integers also

But for  $n > 2$  have also

$$J^2(X^n + Y^n - Z^n) = 0$$

and so on .

---

With Fermat Equations Solutions for  $J^2 = k^n$

But Starting the Analyze for a neighbor  $(X-1, Y-1, Z-1)$  we get

$$n(X^n + Y^n - Z^n) = 0$$

Revealing Double False Redundancy, and easy Treated with Euler - Murgu Equation  $1=1$  and also Excluded by Fermat-Murgu 3-th Grade Impossible Equations , but heavy we can see it even here imagining it in Irrational Field as a bypass .

Lucking above, for  $n=3$  which will exclude also all  $n>2$  by intuitive synonymy, that mean : if

$$J^3 = 3$$

$$J = \sqrt[3]{3}$$

which is not bad , but  
and

$$J^2 = \sqrt[2]{3}$$

which is bad

A false redundancy because need to be valid separately and to evolve from Irrational to Rational and then Integers. The process is multiply and a simple multiply can solve  $k_1$  to say, But second multiply will solve  $k_2$  but will turn back  $k_1$ .

Into Integers as Example For  $J^3 = 27$  ,  $J = 3$  , which isn't bad, but  $J^2 = \sqrt[2]{27}$  , which is bad Then  $n(X^n + Y^n - Z^n) = 0$  is an absolute Conditional for  $n>2$  .

For  $n=2$  Fermat-Murgu Second Grade Impossible Equations are Interruptive going out of Proper Triangle but have validity for



---

Pythagorean Triple into Integers but not for a complete Analyze via last one, because are exceptions guarded of magic 2 and need to satisfy Only  $J$  and  $J^2$  and as example for

$$J^2 = 4$$

$$J = 2$$

which isn't BAD. Sorry for using only J for all but is to understand the connections.

## Fermat-Murgu Second Grade Impossible Equations SENT Fermat's Last Theorem in Fundamental.

### 3.1 n=2 Exception which confirm the rule?

We Get a finally answer from **Fermat-Murgu Second Grade Impossible Equations**, bur for our perception sense of  $\infty$  remain any unbalanced in, for n=2 we have **Exceptions** , and will see for what, and also to not forgot for n>2 we have more **Fermat-Murgu t-th Grades Impossible Equations** which everyone exclude 2 times solutions in Integers. One time by **Fermat-Murgu n Media** new unbalance and second by

$$K_{nI}(X^n) , K_{nI}(Y^n), K_{nI}(Z^n)$$

as solution , for n=3 as example , this mean

$$6(X^3) , 6(Y^3), 6(Z^3)$$

, that mean

$$\begin{aligned} U &= \sqrt[3]{6}X \\ V &= \sqrt[3]{6}Y \\ W &= \sqrt[3]{6}Z \end{aligned}$$

---

Now at a simple analyze, we see for what n=2 present exceptions:

$$\begin{aligned}U &= \sqrt[2]{2}X \\V &= \sqrt[2]{2}Y \\W &= \sqrt[2]{2}Z\end{aligned}$$

are based solutions in irrational field too, but power is 2 and can be compensated by a multiply by any in proportions relative to all X,Y,Z with  $\frac{T}{\sqrt{2}}$  with T Integer. Begin with powers n>2 a multiply can't do it and then **The Answer** can stop here. But to continue our Analyze via **Euler - Murgu Equation 1=1**. which I named so because Euler was trying I think for n=3 to demonstrate - solutions are Irrational and the I supposed HIM know for what.



**Fermat's Last Theorem was sent in fundamental into 2015 September 24 - By simple apparition of Ion Murgu Integers Powers Fundamental Equations , but as method via Fermat-Murgu Impossible Equations . On Internet is a lot of material , which even if presented in a allusive mode inside everyone contain a truth and collected reveal all. Working with so more coefficients, indices's , and powers and , sign conventions is possible to meet small errors , but the essence is there.**

If you ask My for what I did so: the answer is simple, 40 years I was in a sense out of Science, lucking for a balancer there, and I do not have relatives for publishing and kept in the same time my rights for, and I was in knowledge by then - **ONLY ION MURGU INTEGERS POWERS FUNDAMENTAL EQUATIONS CAN DO IT SENT Fermat's Last Theorem in Math and Science FUNDAMENTAL.** and also I had a bad experience

---

about when around of '85 or '90 I sent on Internet Fermat's Last Theorem Natural Solution which now have also validity but after knowing the BASE Solutions are In Irrational Field.



**FERMAT-MURGU SECOND GRADE IMPOSSIBLE EQUATIONS ARE ABSOLUTE CONDITIONALS - and all are , begin with second, but for**

**Fermat's Last Theorem SENT in Fundamental second, already did this.**

**Our Conventions signs , can't Exclude Fermat-Murgu Second Grade from Integers because, by Symmetry if one of X or Y is negative Then Fermat Equations are mirrored into the same form and for n - negative is synonym with a movement in Rational and we know Now if**

$$\frac{1}{X^n} + \frac{1}{Y^n} = \frac{1}{Z^n}$$

**then**

$$Y^n Z^n + X^n Z^n = X^n Z^n$$

**have symmetry for the same problem**

$$A^n + B^n = C^n$$

Magic two have is right to Exceptions which Confirm The Rule because in the simplest Words :

$$\frac{1}{\sqrt{2}} + \frac{1}{\sqrt{2}} = \sqrt{2}$$

---

and then:

$$J\left(\frac{1}{\sqrt{2}} + \frac{1}{\sqrt{2}}\right) = J(\sqrt{2})$$

but never

$$2J^2 = Z^2$$

will be a Fermat's Last Theorem Exception or a Pythagorean Triple into Integers, but only repartitions of  $J = k + l$ , with  $k \neq l$ , and those Exceptions can bypass Double False Redundancy

$$J^2(X^2 + Y^2 - Z^2) = 0$$

and

$$J(X^2 + Y^2 - Z^2) = 0$$

For  $J$ 's of form

$$J = 2I$$

, for  $I$  Integers and excluded all which have common Factor

$$2^k$$

and then: but last material is for Future research for Pythagorean Prime and Ion Murgu Circles Paradox. Also Fermat Exceptions can be easy understand via Euler - Murgu Equation  $1=1$ .

### 3.2 Fermat's Last Theorem END.

Fermat-Murgu Second Grade Equations SENT  
Fermat's Last Theorem in FUNDAMENTAL, AND end IT, AND

---

BROUGHT also its beauty and importance for future. I hope  
Everybody Understood

$$n(X^n + Y^n - Z^n) = 0$$

are ABSOLUTE CONDITIONALS and to Simplify is Interdicted  
, Then Solutions for Fermat Equations related to FLT are  
CONDITIONED to the form

$$\sqrt[n]{n} * X$$

;

$$\sqrt[n]{n} * X$$

;

$$\sqrt[n]{n} * X$$

which intuitively clear involve

$$X, Y, Z \in Irrational$$

and include the conjecture to one to be Integers by

$$Z = \frac{Z'}{\sqrt[n]{n}}$$

.. But this END, isn't a end for the future of  
Fermat's Last Theorem implications and beauty. There do not  
exist and will not for sure another Method To Certify  
Fermat's Last Theorem then Fermat-Murgu Impossible Equations  
, please do not forgot - THERE ARE ALSO A SECOND  
SOLUTION GOING IN PARALLEL - Fermat-Murgu n Media  
for 3 Integers Fermat Last Theorem Related Unbalanced. The  
Rest Of Material what follow will try to make a related future to

---

Fermat's Last Theorem but not all can be considered finished, maybe excluding : Euler - Murgu Equation  $1=1$ . Fermat-Murgu Quadruplets. and Fermat-Murgu Theorem. Then , with all Respect I will take the right for small Errors included by fastening any or inadequate pay attention , but I hope relatively soon I will return on with a strong team which will get any interest for. With pain I will say , there do not exist any motivations as Ion Murgu-Integers Powers Fundamental Equations to by INTERDICTED by ignoring about 2 years and th e half now. Yes, is a reality , those Equations brought any about our Conventional, but in positive mode maybe helping us in the future to improve it - is My hope. Those Equations can be excluding any oldest considered proved Conjectures, but is also a positive fact.

### 3.3 Any beauty is coming in. Ion Murgu - God Equations Of Balance.

Ion Murgu Integers Powers Fundamental Equations have an addition property which brought any Simple and maybe nice beauty on: Ion Murgu - God Equations Of Balance. For Two Integers , without any limits of existence as values , we can write:

$$\sum_{I=0}^n (-1)^m * (K_{nI}) * ((Z + I)^n - (T + I)^n) = 0$$

which present a Philosophic interest at the last , connecting two conceptual aspects related to Zero and another one to UNITY.

Doesn't mater , Z is near of Unity, when T is near of Infinity. I named This Identities Equations "God Equations Of Balance " as a reply to Euler God Equation , and I will say do not let to

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impress you like Euler God Equation did for everybody, instead of going to get any from. Euler God Equation was impressing My , like Impressed Euler and everybody, but I will say is a result of a Gaussian Approximation which isn't a bad one but we can ask ourself is there last Infinity which can be connected to our dependencies? We can also use it in more or not important Beauty revelations coming from, as expressing n function of its ancestors or post ancestors

$$\sum_{I=0}^n (-1)^m * (K_{nI}) * ((n + I)^n - (n - 1 + I)^n) = 0$$

$$\sum_{I=0}^n (-1)^m * (K_{nI}) * ((n + 1 + I)^n - (n + I)^n) = 0$$

or even writing n function of power (n-1) or (n+1), starting from pure form of Ion Murgu Integers Powers Fundamental Equations:

$$\sum_{I=0}^n (-1)^m * (K_{nI}) * (n + I)^n = n!$$

and then writing  $n! = (n - 1)! * n$  then

$$n = \frac{\sum_{I=0}^{n-1} (-1)^m * (K_{(n-1)I}) * (n - 1 + I)^n}{(n - 1)!}$$

, are IDENTITIES , but to hope will hope into PRIME NUMBERS problem.

#### 4 Fermat's Last Theorem-Fundamental.

What really brought FERMAT-MURGU SECOND GRADE EQUATIONS? Apparently nothing new , we know, If

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$$\text{then } \begin{matrix} X^n + Y^n - Z^n = 0 \\ J^n(X^n + Y^n - Z^n) = 0 \end{matrix}$$

which is a simple truth , but JX, JY and JZ are independent values, and can be named mirrored images by multiply. But Now:

$$n(X^n + Y^n - Z^n) = 0 \text{ are absolute conditional ,}$$

$$\text{Solutions for : } X^n + Y^n - Z^n = 0$$

$$\begin{matrix} \text{are of form} \\ \frac{X}{\sqrt[n]{n}} , \frac{Y}{\sqrt[n]{n}} , \frac{Z}{\sqrt[n]{n}} \end{matrix}$$

**Fermat-Murgu Impossible Equations** brought 2 Ways, which **CERTIFY Fermat's Last Theorem** :

- Fermat-Murgu n Media, for 3- Integers Fermat Equations connected, Unbalanced , or eroded from it's natural form.
- begin with Fermat-Murgu Second Grade to n, SENT all or two into Irrational field. Double false redundancy now, is under control and not longer foolish us.

**Double false redundancy of truth.** We have two Identities

$$\begin{matrix} \text{with value absolute truth, If} \\ X^n + Y^n - Z^n = 0 \\ \text{then : } J(X^n + Y^n - Z^n) = 0 \end{matrix}$$

image of first but back of simplify have independent values, which

for  $J = K^n$  are viable Fermat Equations , and also:

$$J^n(X^n + Y^n - Z^n) = 0$$

which do not reflect into integers first one, but have validity also:

THIS is a Double false redundancy of truth which reveal by hiding the Image for Fermat Equations and evolution - Irrational



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- Rational - Integers (When is the case.). But for us now , coming from Fermat-Murgu Second Grade Impossible Equations  $n(X^n + Y^n - Z^n) = 0$  **The Last one Become an absolute Conditional one** break the chain and : **SENT Fermat's Last Theorem in FUNDAMENTAL by generalizing over all n's.**

As will see, Pythagorean Triple, are exceptions which confirm the rule. The Redundancy:

$$X^n = n^{(n-1)}U^n, Y^n = n^{(n-1)}V^n, Z^n = n^{(n-1)}W^n$$

is now excluded. **FERMAT'S LAST THEOREM NOW IS FUNDAMENTAL**

**and with a pure and accurate mathematically solution coming from**

**FERMAT-MURGU IMPOSSIBLE EQUATIONS.** But for sure The Analyze will not end here, and then also Euler - Murgu Equation 1=1, and Ion Murgu- Fermat's Last Theorem Natural Solution, will had to have a role in. Those had a heavy Perception and can't exclude the mathematics purity of Fermat-Murgu Impossible Equations.

#### 4.1 Fermat-Murgu Equations of Negation for Integers.

If our pure sense of infinity don't let us to definitely trust:

$$\sum_{I=n}^2 (-1)^m * (K_{nI}) * (X + I - 1)^n +$$

---


$$\sum_{I=n}^2 (-1)^m * (K_{nI}) * (Y + I - 1)^n$$

$$- \sum_{I=n}^2 (-1)^m * (K_{nI}) * (Z + I - 1)^n +$$

$$(X - 1)^n + (Y - 1)^n - (Z - 1)^n = n!$$

as FALSE.

, then **Fermat-Murgu Equations of Negation for Integers** which are obtained via a pure mathematically method,

$$n(X^n + Y^n - Z^n) = 0$$

, then, are for every n's , **ABSOLUTE CONDITIONALS EQUATIONS, ARE DEFINITELY Fermat's Last Theorem Certify.**

But More then That **SENT Fermat's Last Theorem in Math Fundamental, by generalizing over all n>1.**

We will continue the Analyze for Extracting more, but **Fermat's Last Theorem END here, and in 2015 September 24.,** and Demonstration is very simple.

**THE ABSOLUTE CONDITIONAL**

$$n(X^n + Y^n - Z^n) = 0$$

---

, IS EXCLUDING the Existence of  $n$  as common factor for any Integers  $U, V, W$  by METHOD itself, because if:

$$n(X^n + Y^n - Z^n) = U^n + V^n - W^n$$

as double false redundancy of truth was revealed , to retreat

$$U^n + V^n = W^n$$

, is Absurd , because we already did it and will bring us in an absurd infinity loop . (Not to say , but .. Common factors must to be also  $n^2 n^3 \dots$ ).

### **Fermat-Murgu Second Grade Impossible Equations**

**CERTIFY - Fermat's Last Theorem.**

**END - Fermat's Last Theorem.**

**SENT - Fermat's Last Theorem in Science Fundamental.**

**WITH ACCURACY AND PURE MATH METHODS.**

### **5 Euler - Murgu Equation 1=1.**

Over all fields (Irrational - Rational - Integers) we have for every  $n$  Integer, five Equations which connect with value of truth our fields:

$$X^n + Y^n - Z^n = 0$$

$$J^n(X^n + Y^n - Z^n) = 0$$

---


$$J(X^n + Y^n - Z^n) = 0$$

$$\frac{1}{J}(X^n + Y^n - Z^n) = 0$$

$$\frac{1}{J^n}(X^n + Y^n - Z^n) = 0$$

Three of them with a perfect validity in all fields , two only in one Irrational and occasionally in all three when  $J = K^n$  . Those equations contain all evolving process form a field to another if we have any solutions into Integers or Rational, and is an absolute truth if in Rational then in Integers too, and inverse.

**There also is hided what I named a double false redundancy of truth. Into Irrational J can be Integers and all five have validity into IRRATIONAL, can be Irrational of form  $J = KL$  with L Irrational and K Integer and Then (we started form X,Y,Z Irrationals)at any points one Of (X,Y or Z) can evolve to Integer but never two of them, and it we will see into Euler - Murgu Equation  $1=1$ .**

Now guarded by those, and also by a actual Imposed Condition By Fermat-Murgu Impossible Equations

$$n(X^n + Y^n - Z^n) = 0$$

will help us to strong the truth, and only for, knowing the base solutions need to be in Irrational Field, we can make a supplementary Analyze Starting for **Fermat's Last Theorem** reported to UNITY,

---

to not say in Rational Field because instead of '94 PROOF we know - not solutions there for  $n > 2$ . For it we will divide  $X^n + Y^n = Z^n$  with  $Z^n$  and will get:

$$\frac{X^n}{Z^n} + \frac{Y^n}{Z^n} = 1$$

, to note:  $A^n = \frac{X^n}{Z^n}$  and  $B^n = \frac{Y^n}{Z^n}$  , and then to analyze it for  $A^n$  and  $B^n \in (0, 1)$  . Because are 2, then is synonym with Analyze into  $A^n$  and  $B^n \in (0, 1/2)$

### 5.1 Euler - Murgu Equation 1=1. Notes.

Because I turned on this equation , considering any part as intuitively perceptible , I returned here with any notes. Any times the passing between an Irrational number and its image into Unity maybe need explained.

- **Every Irrational Number have its Image in UNITY as its proper form minus its Integer part.** , then :
- **Into Integers The Complementary of an Irrational Number  $> 1$  , will be an Irrational Numbers  $< 1$  and perfect reflected into Unity treatment.**
- **Every Irrational Number  $< 1$  will complete the Unity only and only by a sum with its Complementary Relative to Unity.** If Note with A the Irrational Number  $< 1$  , and B its Complementary Then only and only  $A+B = 1$ . DEMONSTRATION:

$$\sum_1^k A = 1$$

---

synonym with

$$kA = 1$$

and then

$$k = \frac{1}{A}$$

which is Irrational by definition. But to take our needed Irrationals

$$\sqrt[n]{n}$$

as example : we get:

$$k \sqrt[n]{n} = 1$$

then

$$k^n * n = 1$$

$$k^n = \frac{1}{n}$$

$$k = \frac{1}{\sqrt[n]{n}}$$

Euler Demonstrated it, even if it stand up in the simple definition of a Irrational Number "A IA for any I integers never will be a Integer. But into Unity also we can write

$$A + (1 - A) = 1$$

to transform Irrational Part to Integer is clear we need to multiply with any like  $\frac{k}{A}$  , then :

$$1 + \left(\frac{k}{A} - 1\right) = \frac{k}{A}$$

and here is our double false redundancy coupled with our habit to simplify revealed. We are not in a Analyze if  $1=1$  , we know

---

it , but to analyze if exist an evolving to Integers by sum or multiply. This is second face of it  $1=1$  , but only as a sum between an Irrational and its Complementary to Unity. if

$$A^1 = \frac{k}{A}$$

we get

$$A^1 + (1 - A^1) = 1$$

**k can't be Integer and for our case is simple to demonstrate, because we know our A have form  $\sqrt[n]{n}$ . But also for general A.** For General A Irrational: If  $kA = I$ , we have then  $fkA = fI$  but also Imply an  $\frac{A}{g} = J$  for  $fI = J$  we have

$$gfk = 1$$

..... g can be rational , but doesn't mater so much.

## 5.2 Mathematical Presentation(Euler - Murgu Equation $1=1$ .)

Now for easy work we also will notate  $C = A^n$  and  $D = B^n$  and will return to everybody when need so. A graphical representation can to be needed but need large space maybe for , I will try.

•

I will define a new field , special one Irrational-S which for  $n > 2$ , are Irrational Numbers into Irrational Field of form:

$$\sqrt[n]{n}$$

and

$$\frac{1}{\sqrt[n]{n}}$$

---

and their multiples with Integers as Irrationals Images. You will meet here a Special Irrational Numbers also in My old Material on Internet. I named those Special because we can say can be transferred into Integers by n-times proper multiply or by powering. **Ion Murgu Irrational-S and its Complementary-Postulate**

•

*Every Irrational-S Number have its IMAGE into Unity and its Complementary connected to unity is also an Irrational-S number, and their image in unity are connected in a false double redundancy of truth.*

•

Demonstration: We can write  $C + D = 1$  as  $C + (1 - C) = 1$  trying to eliminate the Irrational from left side by multiply, we need to multiply with

$$\frac{1}{C} \text{ then : we get } 1 + \left(\frac{1}{C} - 1\right) = \frac{1}{C}$$

mirroring it (for  $C = \text{Unity}$ ) into Euler-Murgu Equation  $1=1$ , and if note  $F$  is equivalent with  $1 - \frac{1}{C}$  we get also

$$F + (1 - F) = 1$$

we are now in the front of a new Irrational Repartition Relative to Unity and there will be not a Rational or Integers proportionality which to pass one to another by multiply, but only and only  $C$  which is Irrational-1. **Then: With rights of theorem maybe , but I will let for youngest to evolve it, maybe a little bit more: We can say for  $n > 3$  Fermat's Equations Base Solutions In Irrational , never will can evolve to Rational and Integers.**



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### 5.3 Math short terms, presentation. Fermat's Last Theorem Equations Of Exclusion. Double False Redundancy Of Truth .

FROM Fermat-Murgu Second Grade Impossible Equations of exclusions, We Get an absolute conditional :

If

$$nX^n + nY^n = nZ^n$$

are independent solutions , SATISFIED , then we have also solutions into INTEGERS for. That is a pure Mathematical exclusion for an supposed, by absurd, the existence of

$$X^n + Y^n = Z^n$$

into Integers.

Also Fermat-Murgu n Media associated offer a Image of Unbalance , but to say not a accurate proof, because we can't yet to make as fundamental it.

$$\begin{aligned} & \sum_{I=n}^2 (-1)^m * (K_{nI}) * (X + I - 1)^n + \\ & \sum_{I=n}^2 (-1)^m * (K_{nI}) * (Y + I - 1)^n \\ & - \sum_{I=n}^2 (-1)^m * (K_{nI}) * (Z + I - 1)^n + \end{aligned}$$

---


$$(X - 1)^n + (Y - 1)^n - (Z - 1)^n = n!$$

- For n=2 as power we can see easy , for Pythagorean Triple The Equation Fermat-Murgu n Media is satisfied and Fermat-Murgu Second Grade Impossible Equations also by SENDING to base in Irrational Field for.
- **Now is the time to see what mean - Double False Redundancy Of Truth -**  $X^n + Y^n - Z^n = 0$  Equations for n>2 if have Solutions into Integers then

∞

for to say every Z as Base. Because we know , we don't have any into integers then is **False Redundancy Of Truth, and double because:**

$J(X^n + Y^n - Z^n) = 0$  have to had two connotations both false , one for  $J \neq (K)^n$  and second for J of form  $J = (K)^n$  , where K Integer.

- Considering Z-Integer, and Extrapolating  $Z^n = Unity$  , then  $X^n + Y^n = Z^n$  became:

$$x^n + y^n = 1$$

- To cover Integers ,  $x, y$  forced to rationals. In a presumptive mode.

In accord with Fermat-Murgu Second Grade Impossible Equations also we need to have

$$nx^n + ny^n = n$$

---

Extrapolating UNITY to n.

$$x_1 = x \sqrt[n]{n}$$

and

$$y_1 = y \sqrt[n]{n}$$

- .
- Via  $x_1$  and  $y_1$  we are into IRRATIONAL now. It is the first Image of a supposed  $X^n + Y^n = Z^n$  into Irrational, and double false redundancy of truth is REVEALED.
  - The Equation in Irrational now will be:

$$x_1^n + y_1^n = 1$$

where

$$UNITY = 1 = n$$

- Then we can write

$$x_1^n + (1 - x_1^n) = 1$$

### **Euler - Murgu Equation 1=1.**

is hiding a false truth by a single way connection, the way back do not exist. That mean those infinity forms of mirroring Fermat Equations in Irrational (contain X,Y,Z in , luck back!) and containing al bases possible for evolving into Rational and then Integers , and in the same time The Impossibility in also.

---

As a beauty maybe we can remark NOW, for  $n=2$  all those Infinity

$$x^2 + (1 - x^2) = 1$$

are evolving into Integers.

- By Multiply it with a minimal factor which to bring back in Rational  $x_1^n$ , which is ,

$$\frac{1}{n}$$

, it will be

$$x^n + \left(\frac{1}{n} - x^n\right) = \frac{1}{n}$$

- 

$$x^n + (1 - x^n) = \frac{1}{n} + \left(1 - \frac{1}{n}\right)$$

Please forgot for a while to simplify , this is a conceptual work!  
Here is hidid all.

The Equation ABOVE SAY: For  $n>2$  no way BACK.

- Equations:

$$\frac{1}{n} + \left(1 - \frac{1}{n}\right) = 1$$

is a truth relative to a supposed one , but for Analytic is proving from Irrational to Rational and then Integers , for  $n>2$ , not way back, then our supposed one is false too.

I am not a good Teacher for sure, but expedite as I am, I hope you can see it now, anyway, all is for understanding only, because

---

**Fermat-Murgu Impossible Equations SENT  
Fermat's Last Theorem in FUNDAMENTAL already.**

**5.4 Euler-Murgu Equation Certify Fermat's Last Theorem.**

For  $n > 2$  starting for Fermat Equation Equations Related to

$$\begin{array}{c} \text{Fermat's Last Theorem} \\ X^n + Y^n - Z^n = 0 \\ \text{we get , (luck up ) :} \end{array}$$

$$x^n + (1 - x^n) = 1$$

- we know

$$x^n$$

is IRRATIONAL. We know, NOW, also the way for evolving to  
INTEGERS is

$$K(x^n + (1 - x^n)) = K$$

with

$$K = \frac{J}{\sqrt[n]{x}}$$

For  $n > 2$  this Evolving by even multiple times multiply is more  
then clear impossible . Every multiply will transform a term in  
Rational or Integer and then

$$(1 - x^n)$$

and

$$1$$

---

will emerge in another's Irrationals. Then **Euler - Murgu Equations 1=1 CERTIFY Fermat's Last Theorem**, but **all the mathematical rights for STAND UP for Fermat-Murgu Second Grade Impossible Equations** , because it brought us here. Based on **Double False Redundancy Of Truth**, and **Euler - Murgu Equations 1=1** , now also **Ion Murgu - Fermat's Last Theorem Natural Solution** is a solution for, but neither one have the accuracy of **Fermat- Murgu Impossible Equations**.

### 5.5 Pythagorean Triples into Integers- Fermat's Last Theorem Blessed Exceptions.

|  
**OBSERVATION:**

This subsection will be- I hope- soon complete. Is yet a Subject of research area and you can meet supplementary material about at:

"[www.shoetheory.net/Pythagoras/CirclesParadox.html](http://www.shoetheory.net/Pythagoras/CirclesParadox.html)" and  
"[www.shoetheory.net/Pythagoras/PytP1.html](http://www.shoetheory.net/Pythagoras/PytP1.html)" then consider it  
Orienteering for a while.

|

$$\sqrt[2]{2}$$

are **Irrational Numbers** but are not **Irrational-S Numbers** because admit **Exceptions** form and it is included as a **hide Truth** in : The simple equation

$$2 * X^2 = 1$$

---

which do never will evolve into Pythagorean Triple into Integer as Exception because: are excluded by Fermat-Murgu n Media from first and Second Grades Impossible Equations and expressed into Integers - 2 equal Integers can't to assure a Geometric Media for an Fermat Equation into Integers

But we can Postulate:

For  $n=2$  , All Unity Repartitions of gen :

$$FA + (1 - FA) = 1$$

with

$$F = \frac{K^2}{L^2}$$

will evolve into an Fermat Equation with solution into Integers .

As we know :

$$\begin{aligned} U &= \sqrt[2]{2}X \\ V &= \sqrt[2]{2}Y \\ W &= \sqrt[2]{2}Z \end{aligned}$$

then for all

$$fA + (1 - fA) = 1$$

with f Rationals excepting  $fA=(1-fA)$  we will have a Fermat Equation image into Integers then Infinity Independent Pythagorean Triples. What mean Independent in our ? Every first image into Integers of an evolute from Irrational-Rational will have also Infinity Images Into Integers in accord with

$$J^2 * X^2 + J^2 * Y^2 = J^2 Z^2$$

---

which out of simplify are Integers also, which are composite and not Independent. Now we have the Infinity Z's which can't to be write as  $X^2 + Y^2$ , reflected into Euler-Murgu Equation  $1=1$ , those are coming from

$$\frac{1}{f\sqrt[2]{2}} \neq 1$$

with when Pythagorean Triples into Rationals, are coming from

$$\frac{1}{f\sqrt[2]{2}} = 1$$

then:

**if note  $f=q/t$   $q$  and  $t$  integers we get an orientative equations for, or conditional:**

For Pythagorean Triples into Integers :

$$q = t\sqrt[2]{2}$$

For Pythagorean Prime :

$$q \neq t\sqrt[2]{2}$$

Is without any sense to determine all

$$q, t \in \textit{Irrational}$$

s , or one Integer and then one Irrational, but as orientation is a good step. Example for  $X=3, Y=4, Z=5$

Fermat-Murgu First Grade Impossible Equations for have validity this time, but is only because also for power 2 an Integer  $Z^2$  can be write also as

$$Z^n = \sum_{I=1}^{Z+1} (2 * I - 1) - \text{you can check it, I did.}$$



---

Fermat-Murgu n Media Second Grade also have validity, you can check , I did, and also second grade Impossible, reveal for us The rational solution which is easy 3/5, 4/5 and from here to a base in

$$\text{Irrational}$$

$$\left(\frac{9}{25\sqrt{2}}\right) + \left(\frac{16}{25\sqrt{2}}\right) = 1$$

I remind i=Unity here is our Irrational Unity  $\frac{1}{\sqrt{2}}$  and to not be tented to simplify I kept it as I said, (Now we can speak about a base form in Irrational which to evolve in Rational, I didn't make

a perfect analyze to see it is exactly our example, is not so important now). As you see first Pythagorean Triple have is Fermat's Last Theorem Image in Irrational when is Sharing Unity into  $\sqrt{2}$  25 PARTS  $1 = 25\sqrt{2}$  or  $1 = 25\frac{1}{\sqrt{2}}$  **Pythagorean**

**Triple into integers satisfy also:**

$$n(X^n + Y^n - Z^n) = U^n + V^n - W^n$$

reconfirming are exceptions coming from

MAGIC 2

which is in found a simple property of 2, copled with power 2:-2 is our first number if consider 1 (UNITY)-Generator.

-and power 2 is appropriate to a multiplay also as syntaxing concepts. As Fermat-Murgu Impossible Equations Prove , and also Euler - Murgu Equation  $1=1$  , Pythagorean Triples into Integers are Exceptions and Blessed Exceptions which confirm the rule and it because of Magic 2 and because :

$$\sqrt{2} * \sqrt{2} = 2$$

when

$$\sqrt[n]{n} * \sqrt[n]{n} \neq n$$

---

Expressed in a banal Mode , but explained in all materials.

Now , my sense for Description can be avoided by the immensity of problem and I don't exclude any small errors on, but in time I

will return n-times for repairs if needed. Fermat Murgu

Impossible Equations and Euler - Murgu Equation  $1=1$ , present

Pythagorean Triples into Integers as

Fermat's Last Theorem Exceptions and are also EXCEPTIONS

Which Confirm The Rule. **I promised a graphic but I will**

**say is impossible to make it, because, first, is to large dimensionally, and second seem impossible to follow all**

**dependencies**

of sharing proportionally Unity into reports, relatives to  $\sqrt{2}$  and  $\frac{1}{\sqrt{2}}$  which not all are evolving apparently (really only  $X = Y$  are excluded ) into Fermat Equations  $\in$  Integers . Maybe my expose into this subsection was a little dizzy , and possible I lost any into explanation, but we can express it into a Theorem for future.

Ion Murgu Theorem Of Evolving Pythagorean Triples.

All Independent Pythagorean Triple Into Integers have images

into Irrational via Euler - Murgu Equation  $1=1$  denoted in a

double redundancy reflected into validity for a type Equations

$$fA + tB = 1$$

and

$$f^2 + t^2 = 1$$

, satisfied in the same time, and with  $f,t,A,B$  are Irrationals, and proportionately related also to a double factors taken separately ;  $\sqrt{2}, a$  and  $\frac{1}{\sqrt{2}}$  (which can bring also any confluences, but heavy to follow).

---

And as reminder A and B are  $A = \frac{X^2}{Z^2}$  and  $B = \frac{Y^2}{Z^2}$  **All Integers Begin with  $J > 2$  Integers are implied into Left or Right side of Pythagorean Triple, and it denote Pythagorean Triple are Infinity Relative to Fermat Equations for  $n=2$  -  $X^2 + Y^2 = Z^2$  , but we have also a Characteristic gen Prime Numbers Related to Right Z, to say Pythagorean Prime Not all Z Integers can be wrote as  $Z^2 = X^2 + Y^2$  into Integers.** Please don't forgot, this subsection is yet into research area , and then have the right for modifications. In found our problem is can we determine all Pythagorean Prime by a Math Formula, and right now I can't assure we have one.

**5.6 Pythagorean Prime Numbers and Pythagorean Triples are INFINITY.**

Is time to Define for  $n=2$  , and for Pythagorean Triples related now to Fermat's Last Theorem as Blessed Exceptions a new kind of Numbers , Pythagorean Prime Numbers as Z Integers which:

$$Z^2 \neq X^2 + Y^2$$

Those Numbers have also a little beauty for Geometry also : **A Circle of Raze Z Intersect Grid Unity Nodes only and only in 4 Points (Nodes).** A "face" of Ion Murgu Circles Paradox. The Euler-Murgu Equations  $1=1$  now applied to  $n=2$  as Power reveal Pythagorean Triples and Prime , are INFINITY. Every Pythagorean Prime Number will be Meet in an near or far away Pythagorean Triple but as a member in right sight of equation

$$Z^2 = X^2 + Y^2$$

and as unity can be divided in INFINITY different

## 6 Fermat-Murgu Quadruplets

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- For the moment , Fermat- Murgu Quadruplets is in Work(for formatting in LaTeX), but you can see it on Internet at Youtube, Google and Facebook
- 

For Power  $n=3$  , Coupling, for a short Analyze, Fermat-Murgu  $n$  Media with Ion Murgu - God Equations Of Balance, I saw Fermat-Murgu Quadruplets have the Property, like Pythagorean Triples into Integers for Independent solutions for Fermat- Murgu Quadruplets Equations

$$x^3 + y^3 - z^3 = 1$$

and

$$a^3 + b^3 - c^3 = -1$$

which for symmetry can be wrote as

$$c^3 - a^3 - b^3 = 1$$

and I get 3, but one of them is old know as (6,8,9,1), then mine are (71,138,144,1) and (73,144,150,1) and late I saw on Internet an Impressive one get By Ramanujan , impressive, because is biggest (65601,67402,83802,1) . For My is clear, Ramanujan was started to put down Fermat's Last Theorem , and is non understandable what keep him in this direction, because power 2 have symmetry to multiply and for sure Ramanujan saw it,but at his time not having Ion Murgu Integers Powers Fundamental

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Equations, was incredible how for  $n \in \infty$  to not have  $X^n + Y^n - Z^n = 0$ , probabilistic same an impossibility.

### Fermat-Murgu Quadruplets

There do not exist motivation to not be more, and maybe  $\infty$  (for sure not, but will see), then around of Pythagorean Triple,

Fermat-Murgu Quadruplets are a new beauty Group for Numbers

Theory, and can have the same importance or even more.

Fermat-Murgu Quadruplets brought a simple, Intuitive, but with

a beauty remark of power 3 defining its proper Numeration

System via first equation:

$$L * x^3 + L * x^3 + L * z^3 = L$$

a simple childish observation, but also theirs complementary

image Into Integers

$$L^3 * x^3 + L^3 * y^3 + L^3 * z^3 = L^3$$

with L covering all Integers.

### 6.1 Fermat-Murgu Quadruplets a Complete Modular Method

Relative at Fermat Equations, Fermat-Murgu Quadruplets are first and single concrete Conjecture which can Define a Modular Method, and related to n as power the first and the last. The explanation is simple in first place, but with its implications in the rest - only for  $n = 3$ , we have

$$x^3 + y^3 - z^3 = 1$$

which related to Fermat Equations can Define

$$\frac{X^3 + Y^3 - Z^3}{T^3} = R$$

---

- with remark for our problem into integers

$$R = (R')^3$$

Theirs validity and the form of equations define a Complete Modular Method Incontestable. The explanation is simple , The existence of

$$x^3 + y^3 - z^3 = 1$$

and/or  $-1$  offer for

$$I(x^3 + y^3 - z^3) = I$$

, which back of simplify contain the REST which cover all Integers excepting 0.

$$x^3 + y^3 - z^3 = 1$$

and

$$c^3 - a^3 - b^3 = 1$$

wrote also as

$$X^3 + Y^3 - Z^3 = I^3$$

and

$$E^3 - V^3 - W^3 = I^3$$

with  $X=Ix$  ,  $Y=Iy$ ,  $Z=Iz$  and there are all  $I^3$  ,I mean cover all Integers, then became a natural Modular Method for Fermat's Last Theorem ,  $n=3$ . On Internet I sent a lot of types of solutions , which to proof it, and the answer that Fermat-Murgu Quadruplets are The Proof of Proofs for  $n=3$  for Fermat's Last Theorem is simple , and to analyze first form.

$$X^3 + Y^3 - Z^3 = I^3$$

---

which wrote as

$$X^3 + Y^3 = I^3(1 + z^3)$$

but also an

$$X_4^3 + Y_4^3 = I(1 + z^3)$$

Covering all  $I \in \text{Integers}$ , then for a supposed Fermat Equation

$$U^3 + V^3 = W^3$$

with solutions Integers we can write

$$U^3 = \frac{X_1^3 + Y_1^3}{(1 + z^3)}$$

$$V^3 = \frac{X_2^3 + Y_2^3}{(1 + z^3)}$$

$$W^3 = \frac{X_3^3 + Y_3^3}{(1 + z^3)}$$

Then Finally:

$$X_1^3 + Y_1^3 + X_2^3 + Y_2^3 = W^3(1 + z^3)$$

or

$$X_1^3 + Y_1^3 + X_2^3 + Y_2^3 = W^3(x_3 + z^3)$$

to note it Ec.1. forgot to simplify for a while this bring a equality

---

which need to be satisfy for also independents Integers . There is a conjecture point between

$$J^3(U^3) + J^3(V^3) = J^3(W^3)$$

and

$$k^3(x^3 + y^3 - z^3) = J^3W^3$$

heavy to see because

$$J^3(U^3 + V^3) = J^3W^3$$

and then

$$k^3 = J^3W^3$$

Then Ec.1 will be :

$$(X_1^3 + Y_1^3 + X_2^3 + Y_2^3)k^3 = J^3(W^3)(x^3 + z^3)$$

This Equation need to exist also Independently, if simplify , you will get 1=1, because  $U^3 + V^3 = W^3$  supposed to be a truth , but back of it all integers implied now must to exist also independently. If this Conjecture Point then need to have redundancy to Infinity, to be repetitive. This add a false redundancy of truth, when

$$k^3(U^3 + V^3) = J^3W^3$$

valid only and only for  $k=J$  , REDUNDANCY VOIDED mean:

$$U^3 + V^3 - Z^3 = 0$$



---

do not have any values into Integers.

**Feramt's Last Theorem for n=3 Certified by a COMPLETE MODULAR METHOD.** Fermat-Murgu Quadruplets treated as Independents Values Related to a supposed valid

$$U^3 + V^3 = W^3$$

mean

$$A^3 + B^3 - C^3 = W$$

and

$$E^3 + F^3 - G^3 = W^3$$

but also

$$K^3 + L^3 - M^3 = W^2$$

with A,B,C,E,F,G,M,K,L - all Different Integers, which is absurd HIDDEN in Double False Redundancy of Truth. But this is Excluded simply and with math Clarity by Fermat-Murgu Second Grade Impossible Equations , which maybe is the time to re repeat - **ARE ABSOLUTELY CONDITIONALS.**

## 7 Ion Murgu-Fermat's Last Theorem Natural Solution.

**Fermat's Last Theorem was Certified without any doubts and with ACCURACY**

by Fermat-Murgu Impossible Equations which SENT for every X,Y,Z for Fermat Equations

$$X^n + Y^n - Z^n = 0$$

into Irrational even if one of them is Integer, then next 2 are Irrationals.

And it is Reflected also in Euler - Murgu Equations  $1=1$  , by simple taking of Z over all Integers and then considering Z UNITY , we Demonstrated before  $A + B = 1$  A,B Irrationals, for our Problem.

---

But I am proud to remark , an old Method which I posted on Internet around of '87 -'90 after sending solutions in Irrational, have now validity. This was based on a redundancy of truth, IF

$$X^n + Y^n - Z^n = 0$$

then infinity Images

$$J^n(X^n + Y^n - Z^n) = 0$$

And at the time I said: Then we have an independent Equation

$$U^k + V^k - W^k = 0$$

which need admit

$$U^t U^n + V^l V^n - W^f W^n = 0$$

and

$$U^t = V^l = W^f$$

and also

$$t = l = f$$

which is absurd and now using Euler - Murgu Equation 1=1 easy to demonstrate. Now to say this is hidden in common factors of

---

U,V,W and then to write

$$A^n(X^n + Y^n - Z^n) = 0$$

, with  $U = AX$ ,  $V = AY$  and  $W = AZ$  .

As we Know from Fermat-Murgu Second Grade Impossible Equations also this A need to be of Form

$$A^n = Kn$$

and then

$$K = L^n n^{n-1}$$

an Infinity loop of false redundancy, but over all I think we can make a STOP because that mean

$$W^n, U^n, V^n$$

need to have common Factors also

$$n^n, n^{n-1}, n^{n-2}..n$$

which is Impossible and is what

$$n(X^n + Y^n - Z^n) = 0$$

already said and by a Exclusion Conditional

Now I am sure this Demonstration can stand up also by itself but guarded by heavy perception, the Method what Certify **Fermat's Last Theorem** with accuracy and with not doubts is Fermat-Murgu Impossible Equations via Ion Murgu Integers Powers Fundamental Equations. And did it onto 2015 September 24, is on Internet every where.

## 8 Ion Murgu - Infinity Divergent Conjecture.

Combining now all what we get starting from **Fermat's Last Theorem** considered now as Fermat Equations ,

---


$$X^n + Y^n - Z^n = 0 \text{ then}$$

$$\frac{X^n}{Z^n} + \frac{Y^n}{Z^n} = 1$$

solutions for are in Irrational and Rational , and Rational will impose solutions in Integers too. Fermat-Murgu k-th grades Impossible Equations are conditioning solutions into Integers (is conditional, and then a necessity) are if only and only  $K_{nI}(\frac{X^n}{Z^n} + \frac{Y^n}{Z^n}) = K_{nI}$  and back of simplify, this is an Independent Conditional which need to be satisfied by Independents values.

**We know this CERTIFIED Fermat's Last Theorem, but now to Analyze if there we have any Conjectures which to offer a solution for a Modular Method. A Modular Method by the Accuracy of Math imply**

$$X^n + Y^n - Z^n = 1$$

, so it will cover all Integers (I remind to everybody Fermat's Last Theorem is referring to Integers).

Adapting Euler - Murgu Equation 1=1 to it, we get

$$U^n + V^n = K_{nI}$$

with  $U^n = \frac{K_{nI}X^n}{Z^n}$  and  $V^n = \frac{K_{nI}Y^n}{Z^n}$

$$U^n + V^n = K_{nI}$$

there are all Conjectures , and for  $n > 2$  Multiples as numbers ,

---

theirs count is related to

$$Count = \binom{2n+1}{2}$$

and as  $n$  tend to infinity so the count .

**Our Conjecture is one time Infinity Divergent, but also as you will see , SECOND Time too.**

We know Now, via Fermat-Murgu Impossible Equations , for  $n > 2$  even for  $Z$  Integer or another ones there are not solutions into Integers for Fermat Equations, but that don't mean the analyze need to STOP here.

For it to take Fermat-Murgu Second Grade Impossible Equations and to reflect on.

$$U^n + V^n = n$$

By considering  $n$  as UNITY we are hiding a Infinity Divergent Conjecture Related to every  $n$  as constituent part. Then we need to understand **Euler - Murgu Equation  $1=1$**  for every  $n > 2$  REVEAL first not a CONJECTURE but an IMPOSSIBILITY. Related to Fermat Equations is ABSURD to define a Conjecture when we are in front of Divergence and is a Mathematically pleonasm to do it.

### 8.1 Modularity and Fermat's Last Theorem.

A modular Method To be afforded need to know if is able to determine all the rest's by a mathematical formula or method.

Fermat's Last Theorem complexity, don't give us any permissions

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to avoid Math priority - Rigor .

Then, related to Fermat Equations Is an Absolute Truth if:

$$X^n + Y^n - Z^n = C_i$$

then

$$I^n(X^n + Y^n - Z^n) = I^n C_i^n$$

but if we don't have any

$$|C_i| = 1$$

we do not can apply modularity with all rigor and accuracy. For Fermat Equations,

$$n = 3$$

present first and the last modular property, for which we can apply modularity, and the Method for sure need to be afforded via Fermat-Murgu Quadruplets , to use function

$$x^3 + y^3 - z^3 = 1$$

or

$$x^3 + y^3 - z^3 = -1$$

and the then FALSE CONJECTURE Point

$$I^3(x^3 + y^3 - z^3) = U^3 + V^3$$

But it is possible , only and only because we have here a  $C_i = 1$  , for  $n > 3$  , is impossible to demonstrate if any  $n$ 's meet also

$$x^n + y^n - z^n = 1$$

---

or

$$x^n + y^n - z^n = 1$$

and then a modular method can't generalize our Fermat's Last Theorem.

•

Via Fermat-Murgu Impossible Equations we have Appropriate Fermat Equations Conjectures, we know now  $X^n + Y^n - Z^n \neq 0$  then  $C_{ij}$  from

$$(X_i^n + Y_i^n - Z_i^n) = C_{ij}$$

but those are absolute Conditionals Conjectures and are not our real minimal conjectures related to  $C_{ij}$ . We can't say we will determine all  $C_{ij}$ , starting from :

$$K_I^n(X^n + Y^n - Z^n) = 0$$

but those must to be appropriated, are loosed terms as

$$X^n + Y^n - Z^n = 0$$

to be ZERO into Integers but not The real  $C_{ij}$ 's. . But if we want, and is maybe for nothing, we can approach for by using Euler - Murgu Equation  $1=1$ , adapted for every n, as example for:

• n=2

$$\frac{k_1}{\sqrt{2}} + \frac{k_2}{\sqrt{2}} + C_{ij} = I \frac{I}{\sqrt{2}}$$

for  $C_{ij} = 0$  we have Pythagorean Triple into Integers. I is covering all Integers.

- n=3

$$\frac{k_1}{\sqrt[3]{3}} + \frac{k_2}{\sqrt[3]{3}} + C_{ij} = I\sqrt[3]{3}$$

all  $C_{ij} \neq 0$  for sure.

With heavy work we can, at the last minimal ones, but for  $n = 3$  we already know ALL

$$C_{ij}$$

's are Covering all Integers excluding 0 .

- n=4

$$\frac{k_1}{\sqrt[4]{4}} + \frac{k_2}{\sqrt[4]{4}} + C_{ij} = \frac{I}{\sqrt[4]{4}}$$

for all  $C_{ij} \neq 0$  for sure.

With heavy work we can, at the last minimal ones. And can have a image by simple making

$$k_1 = k_2$$

- n=5

$$\frac{k_1}{\sqrt[5]{5}} + \frac{k_2}{\sqrt[5]{5}} + C_{ij} = \frac{I}{\sqrt[5]{5}}$$

for all  $C_{ij} \neq 0$  for sure.

With heavy work we can, at the last minimal ones. And can have a image by simple making

$$k_1 = k_2$$



- 
- ...

and so on

- **Fermat's Last Theorem been SENT in FUNDAMENTAL by Fermat-Murgu SECOND Grade Impossible Equations - the last is Analyze for future. And Infinity Loop is forcing us to do it only for appropriates n's and to conclude the rest from, but not to go out of rigor.**

•

With all respect , I will say , I see here already first germ of DIVERGENCE, and I don't excluded, is a summary analyze for , but sufficient one. By making  $k_1 = k_2$  and  $I = n$  which offer an appropriate I think minimal Condition: or a minimal

$C$

**IF Convergences had to have Conjectures, Then Divergences had to ... have.**

## 8.2 Modularity Confusion.

Modularity related to Fermat Equations is based on :

$$I^n(X^n + Y^n - Z^n) = C_{ij}$$

even if is hiding it in false axioms this can't hide ,  $C_{ij} \in Z$  , are Conditionals Integers which EXCLUDE form all  $C_{ij} = L^n$ , with also  $L \in Z$  , and it need to be PROVED.

A Modular Method, to be applied as a Certified Mathematically

---

Method, we need to have also as Certified , for every n;

$$(X^n + Y^n - Z^n) = 1$$

validated

and then to can evolve(generate) a General and fundamental Modular Method as

$$I(X^n + Y^n - Z^n) = I$$

A Modular Method need to demonstrate first for all  $n$ 's we have validity for Equations ::

$$x^n + y^n - z^n = 1$$

or

$$x^n + y^n - z^n = -1$$

those is the Inversions Conjecture Points and reveal only for  $n = 3$  into Integers

$$X^3 + Y^3 - Z^3 \neq 0$$

For  $n > 3$  we can afford those Equations because we can't proof if :

$$x^n + y^n - z^n = C_{ij}$$

then

$$C_{ij} \neq L^n$$

---

where L Integer.

Only and Only the Conjecture validity for Equations ::

$$x^n + y^n - z^n = 1$$

or

$$x^n + y^n - z^n = -1$$

can be afforded from a Modular Method , The Conjecture

$$x^n + y^n - z^n = C_{ij}$$

is falling under unclarity of "Double False Resonance of Truth" .

**Only Fermat-Murgu Impossible Equations can CERTIFY  
Fermat's Last Theorem. PERIOD**

**Euler - Murgu Equation 1=1 can't be confused with  
a modular method. Contrary, it is excluding Modularity  
by Demonstrating its IMPOSSIBILITY. Neither can make  
a confusion for Ion Murgu Fermat's Last Theorem Natural  
Solutions. Then to remark both of them have at base:**

$$U^n + V^n = 1$$

only and only for U and V Irrationals.

Do not Confuse the presence of Unity there, as a possibility for a

---

Modular Method. This Unity is at the base, any like

$$\frac{1}{\prod_t^n K_{nI}}$$

or

$$\prod_t^n K_{nI}$$

as  $\prod$  but also as independent values  $K_{nI}$  , We treated until here only

$$K_{n1}$$

or  $n$  because is enough to demonstrate

To calculate every  $C_{ij}$  is a titanic work and can be without sense, but we can make an IMAGE on. Now following last Subsection, we can wrote it in Integers as

$$2X^n + C_m = Z^n$$

We know  $Z^n > 2X^n$  , and then only for a proportionality Calculus, and nothing more right now. Then Taking  $X^n$  as parts and  $Z^n$  as relative unity, and also We have from Fermat-Murgu Second Grade Impossible Equations a proportionality related to  $X^n + Y^n - Z^n = 0$  If write it in Irrational apparently we have :

$2p + C = 3p$  for  $n = 3$  it is perfect valid because second and 3-th Fermat-Murgu Impossible Equations have symmetry for 3

- Second  $Z^3 = 3Z^n$ ,  $X^3 = 3X^3$ ,  $Y^3 = 3Y^3$

- 
- 3-th  $Z^3 = -3Z^n$ ,  $X^3 = -3X^3$ ,  $Y^3 = -3Y^3$
  - sorry for using the same X,Y,Z, is for remind the forms needed.

But for  $n > 3$  Second and 3-th already are losing SYMMETRY.  
 Fermat-Murgu Impossible Equations are coming with :

- Fermat-Murgu n Media for 3 Integers Fermat's Last Theorem Connected or simple , Fermat Equations Related for Integers multiple times UNBALANCED.
- Fermat-Murgu k-th Impossible Equations which REVEAL The missing parts as **Fermat's Last Theorem** to be a Truth into Integers

$$K_I^n \sum (X^n + Y^n - Z^n) = 0$$

Maybe in the future we can GET a General function which to reveal all  $C_{ij}$  , but by now is clear there is coming a multiple DIVERGENCE.

- A general formula for  $C_{ij}$ 's is a problem of FUTURE, but **Fermat's Last Theorem** was SENT in Fundamental by Fermat-Murgu Impossible Equations ALREADY.

**Only and Only Fermat-Murgu  
 Impossible Equations can CERTIFY  
 with ACCURACY  
 Fermat's Last Theorem.**

---

Euler - Murgu Equation  $1=1$  . and Ion Murgu  
 Fermat's Last Theorem Natural Solutions also  
 can do it , but are guarded by  
 Fermat - Murgu Impossible Equations  
 by making perceptible  
 double false redundancy. **Fermat-Murgu Quadruplets**  
**REVEAL a single Modular Conjecture for  $n=3$ , but unfortunately is first and**  
**the last.**

### 8.3 Taniyama-Shimura conjecture, Fermat - Murgu Quadruplets.

\*\*\* I will not covering all Problems born  
 from Fermat's Last Theorem 370 years of fight to SOLVE it, but I  
 remind, a non proof for  $n=3$  stooped Math at Taniyama-Shimura  
 conjecture for a long period of time and at the function which I  
 present down and with all regrets I will say - False connection to  
 Fermat's Last Theorem .

$$y^2 = Ax^3 + Bx^2 + Cx + D$$

A polynomial Equation or Function with Variables at different  
 Powers present a small or big grade of discontinuity into  
 representation of second variable relative to first one. How small  
 we will take Epsilon (or UNITY) THIS DISCONTINUITY  
 remain as an aspect inside and for phenomenology it need to be  
 remarked. Take as Example

$$Y^3 = X^2$$

. For Fermat Equations this Discontinuity do not exist, then  
 outside of the problem into Phenomenology , what we can

---

consider or not (I will say will need to), this function can't to afford **Fermat's Last Theorem**

If you will follow the problem at Wolf Math , or another Math Credible Sites, you will see affirmations in contradictions and uncovered by Proofs what to certify the affirmation. Anyway this kind of Equations do not have nothing in common with Fermat Equations. Polynomial Equations with variable at different powers present Divergent states with heavy and any times impossible to follow its real results. **But for n=3 Taniyama - Shimura Conjecture exist, but the base equations for are:**

$$x^3 + y^3 - z^3 = 1$$

and

$$x^3 + y^3 - z^3 = -1$$

and it will lead to MODULARITY, related to Fermat Equations :

$$I^3(x^3 + y^3 - z^3) = I^3$$

and

$$I^3(x^3 + y^3 - z^3) = -I^3$$

I tried , even if not needed , to bring in the front a natural method how to proof because Fermat-Murgu Quadruplets Existence , Certify Fermat's Last Theorem for n=3, but only for, and I did it to save the work at Taniyama - Shimura Conjecture, which implied big names in Math , and to9 remark wasn't for nothing. Anyway we generalized Fermat Equations For all n's and

---

this no longer is needed, but to remark , we are at the area of reflections into phenomenology , then this can born a **Fermat's Last Theorem Extension**. But to return to Natural Method for a time. In Conformity with last two equations we can write all Integers, including  $X, Y < Z$  form a supposed Fermat Equation for  $n=3$  Valid:

$$X^3 + Y^3 = Z^3$$

and we know now as it to Exist also need to exist :

$$3(X^3 + Y^3) = 3 * Z^3$$

please don't simplify! From Fermat-Murgu Quadruplets first Equation which reveal MODULARITY to write it from Z, then

$$Z^3(x^3 + y^3 - z^3 - 1) = 0$$

then

$$Z^3(x^3 + y^3 - z^3 - 1) = 3(X^3 + Y^3 - Z^3)$$

reveal Fermat-Murgu Quadruplets Modularity Form Multiply Damaged Exclude Validity for  $n = 3$  , for Fermat Equations into Integers. Multiply because also Fermat Equations in conformity with Fermat - Murgu Impossible Equations need to satisfy :

$$6(X^3 + Y^3 - Z^3) = 0$$

and so on. I try, is about hundreds or more, people work on, then need to be considered, but also I will repeat like 2 years and Ago:

**Only and Only Fermat-Murgu Impossible Equation can Certify Fermat's Last Theorem as a Math Accurate Method, because GENERALIZE over all n's and then Fermat's Last Theore became a FUNDAMENTAL in Math.**



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#### 8.4 Fermat's Last Theorem Extension.

Fermat - Murgu Impossible Equations CERTIFY **Fermat's Last Theorem**, even Generalized over all n's and then SENT it in FUNDAMENTAL, but for phenomenology we need to remark any aspects . One is , **We can postulate now , for**

$$n > 2$$

into Integers do not exist the possibility as one Integer to be connected to another two Integers at the same powers n. **For Every Z Integer**

$$Z^n \langle \rangle X^n + Y^n$$

. But Also The Existence Of Fermat-Murgu Quadruplets Claim an **Fermat's Last Theorem Extension**. **We can postulate now , for**

$$n > 3$$

into Integers do not exist the possibility as one Integer to be connected to another 3 Integers at the same powers n. **For Every Z Integer**

$$Z^n \langle \rangle X^n + Y^n + T^n$$

This , as problem isn't the same with Ion Murgu Infinity Divergent Conjecture which I will say remain for Next Generation in Math, because Infinity Divergent Conjecture bring a new aspect hide in Double False Redundancy Of truth. Is Absolute truth Now :

$$Z^n \langle \rangle X^n + Y^n + T^n$$

---

for  $n > 3$ , but:

$$Z^n - X^n = C_1$$

with

$$C_1 \text{Integer}$$

$$Y^n - T^n = C_2$$

with

$$C_2 \text{Integer}$$

then can we to exclude

$$C_1 = C_2$$

????? I Will say , YES, but to let somebody else to make a profound analyze.

## 9 Fermat-Murgu Theorem or P versus NP Impossible

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Also For the moment , Fermat- Murgu Theorem is in Work (for formating in LaTeX), but you can see it on Internet at Youtube, Google and Facebook

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This material do not have nothing to do with our Civil Society Controversial about **Artificial Intelligence**, but only and maybe can be considered as an Human Dignity release. •

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### 9.1 Fermat-Murgu n Media.

As we know, a pure Algebraic Media is denoted by:

$$\frac{\sum_1^n}{n}$$

and I posted it here as a proposal to define also as a Geometric Media starting from Pythagorean Triple, as:

$$AB = \frac{(A + B)^2 - C^2}{2}$$

which related 3 Integers Condition for a Pythagorean Triple. And then, a humble please for an Divergent Media revealed by Ion Murgu Integers Powers Fundamental Equations.

$$\sum_{I=n}^0 (-1)^m * (K_{nI}) * (T + I)^n = n!$$

this define a Integer  $T$  and its Media Connections related to a power  $n$ .

### 9.2 Fermat-Murgu Theorem.

Based on Fermat-Murgu n Media and on Fermat-Murgu Impossible Equations we can postulate Now a future for **Fermat's Last Theorem** as Fermat-Murgu Theorem, but first to make an Observation.

- Fermat-Murgu n Media define a composite Media. Now Media

---

here have a new conceptual face and maybe in time will be renamed.

- Fermat-Murgu Impossible Equations are for every  $n$  as number

$$\frac{n + 1}{2}$$

but to analyze all neighbors of  $T$  if  $T > n$  we can use also old form and can see all  $n$ 's neighbors are unbalanced related to Fermat's Last Theorem.

That mean, we have for every  $n$  Pure Fermat-Murgu Impossible Equations :

$$\frac{n + 1}{2}$$

and in a sense it contain a non perceptible form of another kind of EXCEPTIONS.

- For  $n=2$  , Fermat- Murgu Impossible Equations are valid and contain also validity for Pythagorean Triples (you can try it) into an apparently Exclusion Equations because are Exceptions which confirm the rule and denoted by simple TRUTH - As Syntax Power 2 have symmetry of multiply .
- Observing Ion Murgu Coefficients Triangle for  $n$  odd , the middle terms are the same.
- A Fermat-Murgu Quadruplets Analyze of

$$I^3(X^3 + Y^3 - Z^3) = -I^3$$

reveal with Clarity

$$X^3 + Y^3 + U^3 = Z^3$$

---

where U also Integer.

Then can to Postulate as a future Fermat-Murgu Theorem

**For Every n as an Integer Power, a pure sum**

$$\sum_{1}^k X_i^n = Z^n$$

**, can be validated into Integers only for, k=n for  
n odd and k=(n -1 ) for n even.**

### 9.3 P versus NP - Impossible.

Fermat-Murgu Theorem is Impossible to PROOF in his totality, and a simple acceptance will not exclude Infinity Loop on. Mathematically, we already proved it for n=2 and n=3, and have any Calculus proofs for n=4, and n=5, but it is an Infinity small area of proofs for and n tending to  $\infty$  is excluding even an artificial intelligence for.

**Fermat-Murgu Theorem as an NP Problem PROOF  
Fermat's Last Theorem as P Problem Solved can't afford  
an NP Solution.  
P versus NP IMPOSSIBLE**

## 10 Infinity Divergent Conjecture.

In Science, usually, our point of interest are oriented around of convergences which are normally for evolving any theory around , but I have the dare to start at the last any Philosophic Abstract Logic for Divergence as a explosion of Diversity around us. This

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is only a Start from Fermat's Last Theorem accurate solution results and beauty.

For Math Accuracy , INTO INTEGERS EPSILON = UNITY , and if not we will loss a lot from Fermat's Last Theorem correct and accurate solution. **The accurate solution for Fermat's**

**Last Theorem brought any new aspects , one is Fermat-Murgu Quadruplets, but also important one can be INFINITY DIVERGENT CONJECTURE for  $n > 3$  at the last for  $n = 4, 5, 6$  (at the last because) is impossible a complete treat for all  $n$ 's . Intuitively now I will say this can be good for Topology.**

### 10.1 Divergence Point of Start Theorem.

First to fix an aspect , have it any importance? I will say yes. I know around of us right now around of us is at big stake , Cryptography, personal I don't like it so much but I am sure Ion Murgu Integers Powers Fundamental Equations , and Ion Murgu God Equations Of Balance, Brought Infinity keys for. But Infinity Divergent Conjecture can be important in polynomials.

Sorry for name, can be improper!

**Into Integers, for four different Integers all on positive or all on negative axle,  $(X, Y, Z, W)$ , and for a power  $n > 3$ , there do not exist a connection equation of type ,**

$$X^n + Y^n = Z^n + W^n \text{ (DPST1)}$$

or

$$X^n + Y^n = W^n - Z^n \text{ (DPST2)}$$

I didn't proved it totally yet, then remain for research area of future. It's important or not the future will say. Fermat-Murgu Theorem didn't Excluded any Exceptions for Powers of Form

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$n=2^*k$  , and then 4 as power is there. For  $n=3$  , I hope don't need to return all discussions about Fermat-Murgu Quadruplets then that :

$$x^3 + y^3 - z^3 = (+/- 1)$$

existence

included automatically both of them by :

$$W^n(x^3 + y^3 - z^3) = W^n$$

For  $n=2$  we have already in the tables all around a lot of examples.

## 10.2 Divergence Point of Start Theorem.1

Divergence Point of Start Theorem, if proof it's validity, then proof also Fermat-Murgu Quadruplets as last conjecture(related to triples into Integers), but to start from Fermat-Murgu Quadruplets as PROOF for Divergence Point of Start Theorem is insufficiently and clarify also a Modular Method as PROOF for Fermat's Last Theorem is insufficiently. Is clear if:

$$x^n + y^n = z^n + 1$$

then

$$I^n(x^n + y^n) = I^n(z^n + 1)$$

imply

$$X^n + Y^n = Z^n + W^n$$

---

but the inverse (if not) do not exclude whit clarity:

$$X^n + Y^n = Z^n + W^n$$

from Fermat's Last Theorem FUNDAMENTAL now, we know.  
into integers :

For n=3 we have concrete Proof as :

$$x^n + y^n = z^+1$$

like Quadruplets (73,144,150,1)

, but for n>3 we don't, then maybe the last solution for proof remain Ion Murgu God Equations Of Balance, but I will not force it until will pass all Math Critics.

$$\sum_{I=0}^n (-1)^m * (K_{nI}) * ((Z + I)^n - (T + I)^n) = 0$$

Here to use the addition property in pure form .

$$\sum_{I=0}^n (-1)^m * (K_{nI}) * ((X + I)^n + (Y + I)^n) = \sum_{I=0}^n (-1)^m * (K_{nI}) * ((Z + I)^n + (W + I)^n)$$

imply

$$X^n + Y^n + \sum_{I=1}^n (-1)^m * (K_{nI}) * ((X + I)^n + (Y + I)^n) = W^n + Z^n + \sum_{I=1}^n (-1)^m * (K_{nI})$$

If

$$X^n + Y^n = W^n + Z^n$$



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then

$$\sum_{I=1}^n (-1)^m * (K_{nI}) * ((X+I)^n + (Y+I)^n) = \sum_{I=1}^n (-1)^m * (K_{nI}) * ((Z+I)^n + (W+I)^n)$$

which seem to be impossible . Now I must to say we demonstrate this one but in a form which because of double false redundancy of truth can't exclude totally one possibility, and I hope you understood now it : Clear by Certify Fermat, we know there do not exist

$$X^n + Y^n = Z^n$$

but for sure

$$X^n + Y^n = C_1$$

and

$$X^n + Y^n = C_2$$

can we now exclude also

$$C_1 = C_2$$

I will say YES, But will let it for the eyes of all CRITICS anyway.

### 10.3 Divergence Point of Start Theorem.2

The form

$$X^n + Y^n = Z^n - W^n$$

is in a sense the same and will not repeat everything. This is a derivative from Fermat Equations in the form

$$Z^n - X^n - Y^n = 0$$

and Fermat-Murgu Quadruplets in as

$$x^3 + y^3 - z^3 = -1$$

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## 10.4 Divergence Point of Start General Solution.

Like I said before , related to powers we can Generalize and Certify now: For Four Integers and powers  $n > 3$  there do not exist:  $X^n + Y^n = Z^n + W^n$  (DPST1)

or

$$X^n + Y^n = W^n - Z^n \text{ (DPST2)}$$

and it define - INFINITY DIVERGENT CONJECTURE .

Solution is Simple related to Fermat's Last Theorem and then connected to Fermat-Murgu Quadruplets Form excluded for  $n > 3$  , because non existence of :

$$x^n + y^n - z^n = 1$$

and

$$x^n + y^n - z^n = -1$$

exclude both of them for  $n > 3$ . This Can be important, and I hope soon we will can Sent also Fermat-Murgu Quadruplets Base Equations in Fundamental for  $n > 3$  . In a Primary Form I did it, but can't to say is accurate - Fermat-Murgu n Media

$$\sum_{I=1}^n (-1)^m * (K_{nI}) * ((X+I)^n + (Y+I)^n) \neq \sum_{I=1}^n (-1)^m * (K_{nI}) * ((Z+I)^n + (W+I)^n)$$

for four Different Integers (X,Y,Z,W). But I repeat it is for critic and also I remind Double False Redundancy Of truth: If

Equations of Form

$$X^n + Y^n - Z^n = 0$$

imply totally symmetry for

$$I^n X^n + I^n Y^n - I^n Z^n = 0$$

---

and false one for

$$IX^n + IY + n - IZ^n = 0$$

(False because the equality exist , but the sense of equations is a truth only for  $I = k^n$  then care also for simplify!) we can't to say the same about Equations of Form

$$X^n + Y + n - Z^n = C$$

where

$$IX^n + IY + n - IZ^n = IC$$

is a translation , **but also big care of inverse , SIMPLIFY.**

Then, at this time I can't Certify is accurate also for the case

$$X^n + Y^n = C_1$$

,

$$W^n + Z^n = C_2$$

and then

$$C_1 \neq C_2$$

, which is a truth for sure but the accuracy remain for the future. **Fermat's Last Theorem was SENT in Fundamental by Fermat-Murgu SECOND Grade Impossible Equations and all next Grades are coming to strong it, but also Fermat-Murgu n Media Related to Fermat Equations are.** Fermat - Murgu Quadruplets are first and until now last Conjecture for which we can adapt a Modular Method , and to name it as Exceptions from Infinity Divergent Conjecture can be important into Math Topology. I repeat , is possible to meet yet any small errors in this material, but not of essence for sure. **This was a preemptive try to analyze Infinity Divergent Conjecture, and I will let for next generation the final**

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analyze, because I can be blinded now of any preconceptions coming from the precedent work, but I will remark Conjecture Concept in is like Fermat-Murgu n Media related to every n. We can't connect normally The Concept Divergent With Conjecture, but here is About Divergent at an Inferior Order which Converge to a Superior One.

## 11 Ion Murgu Golden Numbers Equations .

I think we already speak about any beauty coming from Ion Murgu Integers Powers Fundamental Equations as Ion Murgu God Equations Of Balance, named so, as a pertinent reply to Euler God Equation , but with any Philosophic Logic associated to ZERO and Unity .

$$\sum_{I=0}^n (-1)^m * (K_{nI}) * ((X + I)^n - (Y + I)^n) = 0$$

doesn't mater X and Y .

$$\frac{\sum_{I=0}^n (-1)^m * (K_{nI}) * (X + I)^n}{\sum_{I=0}^n (-1)^m * (K_{nI}) * (Z + I)^n} = 1$$

doesn't mater X and Z into Integers. But Maybe very important can be Golden Numbers Equations , which at the last brought any beauty by the possibility to express every Integer function of its Power and Factorial .

$$\sum_{I=0}^n (-1)^m * (K_{nI}) * (n + I)^n = n!$$

## 12 Importance

The importance for ION MURGU - INTEGERS POWERS FUNDAMENTAL EQUATIONS or as named in first place into 2015 September 24 (Math Millennium Equations), is crucially, and I had more motivations to say it, right for I said, also can be named - HUMANITY SCIENCE THESAURUS - .

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1. Brought us near of Connection Irrational - Rational - Integers and it with important conotation for Physics and Chemistry and Science. I will return soon to this aspect , remarking now - there is Connection Continue - Discontinue .
  2. Brought, Fermat-Murgu Quadruplets, a nice Group what kidding or not, is Redefining is Quantum - UNITY. But outside of kidding , there are connections which can to born new future.
  3. Can be used in Polynomial Equations to get multiple forms as help on.
  4. THOSE Equations solved instantly , Fermat's Last Theorem via a Mathematically Method, named Fermat-Murgu Impossible Equation what have at base it. I hope not a Mathematician with skill will put the problem of old convention of sign because for n odd if X and Y negatives , then Z forced Negative into Fermat Equations

$$X^n + Y^n = Z^n$$

, and for one negative by symmetry the Equation became

$$X^n = Y^n + Z^n$$

or

$$Y^n = X^n + Z^n$$

- a rotation of terms. The old sign convention can't stop Fermat -Murgu Impossible Equations in Solving Fermat's Last Theorem into an accurate mode. For  $(n < 0)$  , we are into Rational Field and Fermat's Last Theorem Extension or Murgu Extension is simple to demonstrate: Fermat's Last Theorem Extension Or Murgu Extension . If Fermat's Last Theorem via Fermat's Equations

$$X^n + Y^n = Z^n$$

have any solutions into Integers Field then by definition have also into Rational Field and INVERSE . DEMONSTRATION: Supposing By Absurd Fermat Equations

$$X^n + Y^n = Z^n$$

have any solutions into Integers , Then

$$\left( \frac{X^n}{Z^n} + \frac{Y^n}{Z^n} \right) = 1$$

will reveal a Rational Solution , and Inverse.

5. As you see Above via Ion Murgu God Equations Of Balance, we get a new tool in Numbers Theory and Algebra , and not only, via all connections possible which it brought, but also if we write left side as

$$(S_R^n)$$

where n, R are indices's for power and |R| ,any integer, then : image Fermat Equation

(a)

$$\left| \frac{S_Z^n}{S_T^{n-1}} \right| = n$$

(b)

$$\left| \frac{S_Z^{n+1}}{S_R^n} \right| = (n + 1)$$

(c)

$$\left| \frac{S_R}{S(n-2)_T} \right| = n(n-1)$$

(d) and so on, and can include as T,Z,R and even n as Prime Numbers connected.

6. via those Equation , we get Fermat-Murgu QUADRUPLETS , maybe with the same importance as Pythagorean Triples into Integers- Fermat-Murgu QUADRUPLETS are Integers Coupled into Equations

$$(X^3 + Y^3 - Z^3 = 1)$$

or

$$(X^3 + Y^3 - Z^3 = -1)$$

and theirs Infinity Images

$$(J^3(X^3 + Y^3 - Z^3) = J^3)$$

or

$$(J^3(X^3 + Y^3 - Z^3) = -J^3)$$

with J covering all Integers .

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7. Via Fermat-Murgu Impossible Equations and Euler - Murgu Equation  $1=1$ , discovered Pythagorean Triples as Exceptions from Fermat's Last Theorem, but exceptions which confirm THE RULE.

8. Observation: The role of

**Ion Murgu Integers Powers Fundamental Equations)**

into solving **Fermat's Last Theorem** in an ACCURATE Mode via a NEW Mathematically Method

Fermat-Murgu Impossible Equations can't be excluded because of an also modern problem hidden in complex Numbers define, but not solved (I will say without to offend nobody),

**Double asymmetry of powers relative to UNITY, and sign convention around of ZERO.**

I do not have time right Now , to demonstrate • **Taniyama-Shimura Conjectre** • isn't proved yet, but as reflection I can sent you to **Fermat-Murgu Quadruplets** revealed by equations

$$X^3 + Y^3 - Z^3 = 1$$

or

$$X^3 + Y^3 - Z^3 = -1$$

which is the last concrete conjecture and by Definition a Complete Modular Method, then I consider impossible to Demonstrate this is valid for every n as power. Also I consider **semistable elliptical curves over rationals** an mistake in because Fermat Equations if have solutions into Integers, then, by Definition will have in rational , then can't be used, even into an inverse logic. After power  $n>3$  we can speak about multidimensional tensorial described until now into Fermat-Murgu n Media and maybe into near future , step by step, with another's connections. Then, with all respect, I will say , from  $n>3$  , we can speak about elliptical curves on, begin from here we can speak about

Ion Murgu - Infinity Divergent Conjecture. As I demonstrated up in this material the sign convention neither can be invoked for the power of Ion Murgu Integers Powers Fundamental Equations as via its Mathematically Method Fermat-Murgu Impossible Equations in

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**CERTIFY and SENT in fundamental Fermat's Last Theorem.**

9. Relative at Fermat Equations, Fermat-Murgu Quadruplets are first and single concrete Conjecture which can Define a Modular Method, and related to n as power the first and the last. The explanation is simple in first place , but with its implications in the rest - only for n =3, we have

$$x^3 + y^3 - z^3 = 1$$

which related to Fermat Equations can Define

$$\frac{X^3 + Y^3 - Z^3}{T^3} = R$$

- with remark for our problem into integers

$$R = (R')^3$$

10. All those items, described in short terms here will be reloaded in its proper material, including four methods of certifying Fermat's Last Theorem and I hope I will can have a ISBN to put all in a BOOK, even if will be an electronic book, will need its proper ISBN.
11. About Bibliography I think Abel Institution and International Math Institutions , and Nobel Institution will have the right to add The Bibliography which match whit. If any errors of Language or SIGNS, I claim the right to be coming with any ERRATA's in times.

In essence this is a result of a 40 years work, and not special for **Fermat's Last Theorem**, but for to say Blessing our Experimental and intuitive dependencies  $\frac{1}{R^2}$

**I am not excluding the possibility of any small errors, can be coming from the immensity of conceptual work, but in time I will return with a humble please for revisions, and if you see any please help on.** . The Problems Implied are any times inducing extreme fatigue, and then I hope I did My duty until now. I remind you Fermat's Last Theorem blocked all geniality for 400 years, then do not critic any small errors but the essence you can. @ UNDER Human Natural Rights Of Copyright .