

THE 3rd INCOMPLETENESS THEOREM DISPROVING RIEMANN HYPOTHESIS

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Abstract:

There is a hidden limits in our mathematics itself that's make us cannot keep counting to infinity not because our human species incompetent but because in reality our numbers by itself are finite, in fact we will never have infinite numbers not just because we are incapable of counting to infinity but because in our mathematics there is no such thing.

Numbering is not just counting, numbering is counting that's holds a definitive value but infinity is undefined so no number could be a represent for infinity. Infinity of numbers cannot exist, because any number you think of no matter how big it's in the end it will have value then it will be define but infinity is undefined.

If we have infinite numbers then there summation will give us a well definitive value and that's would be closer to zero than to infinity and by this infinity just cannot be exist and this what I will prove in this work and to certify this theory I will use it to disprove Riemann hypothesis among other.

1-Introduction (how to count beyond infinity and how to disprove infinity in numbers):

There is a neglected side of the Hilbert's infinite grand hotel paradox this neglected side is the bus of the guests, as I will show it's contain very important information that we really overlooked.

The bus have an infinite number of passengers inside it but since the bus is full with an infinite lines of seats to contain the infinite number of passengers then the sequence of these seats will be a quite challenge since we cannot count to infinity and yet we should have a parallel lines of seats.

I found the solution in the Quran it's well established in more than one verse⁽¹⁾ in the Quran that when words matched and compared with numbers then the words will out-count the numbers by a huge significant margin so I knew from that the only way to count beyond infinity is by using words i.e. an encoded sequence of words

The minimum form of word is two letters so let use $(ab\&ba)^{(2)}$ such that the first infinite line of guest in the bus for 1st seat could use encoded sequence of (ab) and for 2nd seat $(abab)$ and for 3rd seat $(ababab)$ and so on to infinity such that with every new seat we ad (ab) then the infinity encoding sequence here will be as follows

$$\infty \equiv (abababab\dots\rightarrow_{\infty})$$

For the second line of seats we cannot use encoded sequence of (ab) since $(abababab\dots\rightarrow_{\infty}) + ab = (abababab\dots\rightarrow_{\infty})$ then for the 1st seat we will manipulate the (ab) encoded sequence to become (ba) and for the 2nd seat we could have $(baab)$ and for the 3rd seat could have $(baabab)$ and so on to infinity such that infinity encoding sequence here will be as follows

$$\infty \equiv (baababab\dots\rightarrow_{\infty})$$

For the third line of seats there is no encoding sequence for the 1st seat so there is no first seat there is only a space and this space has an equivalent value of one seat and since its not in sequence of infinite count of seats then it's most certainly holds value of the space of one seat i.e. we could preform on it arithmetical and mathematical operation i.e. it's a number (1)

But we have an encoding sequence for the 2nd seat and it will be $(abba)$ and for the 3rd seat $(babaab)$ and so on to infinity such that infinity sequence here will be as follows

$$\infty \equiv (babaabab\dots\rightarrow_{\infty}).$$

Number is count that's holds value and value give it limitation so for a thought or a thing to be distinguished as a number is to have these three characteristics

This pattern of gaps will emerge and escalate until we have all the integers such that we have a new integer (n) at every line (k) follow the next equation

$$k = (2^n) + 1; n \geq 0 \dots\dots \boxed{1}$$

This pattern will keep reemerge for range of neighboring lines in which all ends with the same integer in which represent in this level of knowledge the end of numbers and the last number before infinity such that the range of neighboring lines could be calculated by the next equation

$$r = (2^{n+1}) - (2^n); n \geq 0 \dots\dots \boxed{2}$$

We could keep on doing lines of encoded sequencing and keep adding these lines and level of mathematical knowledge with an emerging gaps of just an empty space that's have an equivalent value of the amount of absence seats until we arguably we have in theory one and only one line in a level of mathematical knowledge with literally an infinite gap of equivalent seats and with only one seat in its end with an encoded sequencing consists of only (ba) sequencing without any (ab) sequencing in it, this level of one line will have the last only one seat of infinite encoded sequencing in the form of

$$\{\infty_{\text{only}(ba)} = \infty \equiv (\text{babababa} \dots \rightarrow \infty)\}$$

But since we will never run out of (ab) sequencing then the last seat in the last line with infinity of encoded sequencing of $(\infty_{\text{only}(ba)})$ does not exist and since this does not exist then infinite numbers does not exist even when we have infinite numbers i.e. we have infinite sequencing but we don't have infinite numbers even when we have infinite numbers.

2-Disproving Riemann hypothesis:

The number (1000) will emerge out of encoding sequencing of infinities of (ab&ba) at line with number^{3} of

(10,715,086,071,862,673,209,484,250,490,600,018,105,614,048,117,055,336,074,437,503,883,703,510,511,249,361,224,931,983,788,156,958,581,275,946,729,175,531,468,251,871,452,856,923,140,435,984,577,574,698,574,803,934,567,774,824,230,985,421,074,605,062,371,141,877,954,182,153,046,474,983,581,941,267,398,767,559,165,543,946,077,062,914,571,196,477,686,542,167,660,429,831,652,624,386,837,205,668,069,377) in this line^{4} we will have numbers

from 1 to 1000 then an infinity of encoded sequencing of (ab&ba) that's mean we could theoretically define a decent amount of our level of knowledge of mathematics and arithmetic but we cannot prove it all because these numbers in this line are not so much and they lack the enough value that's needed to produce an efficient pattern recognition

In this level of mathematical knowledge we have the enough knowledge to construct complex zeta function and surely we have some prime numbers located on the (1/2) line and yet its not on our (1/2) line because (14.x)^{5} here is not our (14.x) because here

$$\text{Bedouin}_1[14.x + 987 \equiv \text{undefined}] \dots \boxed{3}$$

because here the biggest number here allowed by the mathematical pattern of encoding sequencing is (1000) then after it we only allowed to have sequencing infinities because this encoding sequencing is preceded by infinities of encoding sequencing in the previous lines and levels while in our level of knowledge

$$\text{usual}_1[14.x + 987 = 1001.x] \dots \boxed{4}$$

By combining equation $\boxed{3}$ & $\boxed{4}$

$$\text{usual}_1[14.x + 987 = 1001.x] \neq \text{Bedouin}_1[14.x + 987 \equiv \text{undefined}] \dots \boxed{5}$$

i.e. this is a different (14.x) and as we know (14.x) is the first non-trivial zero in Riemann hypothesis so after all there is an prime numbers are located on another place not on our (1/2) it's just a different (1/2) i.e. equation $\boxed{5}$ disprove Riemann hypothesis

3-Disproving set theory:

Let's consider the set of all real integers bigger than zero and undefined bigger than one i.e. the 2nd level of mathematical knowledge

$$S = \{x: x > 0; 1 + 1 \equiv \text{undefined}\}$$

Here we have all the ones in the 2nd level of mathematical knowledge i.e. 2 lines or columns as follows

| No level | 1 st level | 2 nd level | | 3 rd level | | | |
|-----------------|-----------------------|-----------------------|-----------------|-----------------------|-----------------|-----------------|-----------------|
| 1 st | 2 nd | 3 rd | 4 th | 5 th | 6 th | 7 th | 8 th |
| ab | ba | 1 | 1 | 1 | 1 | 1 | 1 |
| abab | baab | abba | baba | 2 | 2 | 2 | 2 |
| ababab | baabab | babaab | bababa | abbaba | ababba | abbaab | baabba |

There is no way to make a set from the 3rd line in the 2nd level of mathematical knowledge that's can be distinguished from the 4th line in the same level of mathematical knowledge both the 3rd line and the 4th line in this level

$$S = \{x: x > 0; 1 + 1 \equiv \text{undefined}\}$$

We could argue that the 3rd line and the 4th line in this level are distinguishable by the (ab&ba) encoded sequencing i.e. we should be able to swapping some of these parallel encoded sequencing and create a new two lines in this, but if this is true then we should have four lines in this level as follow

| 2 nd level | | | |
|-----------------------|-----------------|---------------|--------------|
| 3 rd | 4 th | False column | False column |
| 1 | 1 | 1 | 1 |
| abba | baba | baba ← → abba | abba |
| babaab | bababa | babaab | bababa |

And this is false because equation [2] testify that in the 2nd level of mathematical knowledge there is only two lines of numbers

$$r = (2^{1+1}) - (2^1) = 2 \dots\dots [2]$$

$${}_1^2S = \{x: x > 0; 1 + 1 \equiv \text{undefined}\} = {}_2^2S = \{x: x > 0; 1 + 1 \equiv \text{undefined}\}$$

$$\because {}_1^2S = {}_2^2S \therefore \Rightarrow S \text{ does not exist} \because S \text{ does not exist} \therefore \Rightarrow \text{no set exist}$$

Since {S} dose not exist then no set could exist in any level because the same thing applied on every set of numbers in any line or column of numbers in any level of mathematical knowledge including our level of mathematical knowledge we cannot have any set of numbers sine we cannot distinguish the columns inside the level i.e. equation [2] disprove the set theory.

In fact equation [2] disprove the set theory by disproving the three traditional laws of thoughts i.e. the identity, the non-contradiction and the excluded middle in fact equation [2] testify that the columns same level of knowledge are all exactly the same column and in the same time they are not.

¹ Surah Al-Kahf: Verse(109) & Surah Luqman: Verse (27)

² Originally I was going to use the Arabic alphabet but it came to my knowledge later that the peer review journals do not accept any Arabic language related encoding or symbolism, it's highly hypocritical since they use our Arabic numerals and Algebra among other things but our Arabic letters forbidden, so I was forced to changed my encoding sequence to english.

³ I used online big number calculator <https://www.calculator.net/big-number-calculator.html>.

⁴ I named this level of knowledge as the Bedouin because there is a real story in Arabic history about a Bedouin Arab who really think that (1000) is the end of all numbers and have a very hilarious story that's made him loss a guaranteed chance of winning (100,000) or even a million gold coin just because he thought that (1000) is the end of all numbers.

⁵ (14.x)=(14.134725141734693790457251983562470270784257115699243175685567460149

9634298092567649490103931715610127792029715487974367661426914698822545
825053632394471377804133812372059705496219558658602005556672583601077
3700205410982661507542780517442591306254481978651072304938725629738321
5774203952157256748093321400349904680343462673144209203773854871413783
1735639699536542811307968053149168852906782082298049264338666734623320
0787587617920056048680543568014444246510655975686659032286865105448594
4432062407272703209427452221304874872092412385141835146054279015244783
3835425453344004487936806761697300819000731393854983736215013045167269
6838920039176285123212854220523969133425832275335164060169763527563758
9695376749203361272092599917304270756830879511844534891800863008264831
2516911271068291052375961797743181517071354531677549515382893784903647
4709727019948485532209253574357909226125247736595518016975233461213977
3160053541259267474557258778014726098308089786007125320875093959979666
60675378381214891908864977277554420656532052405)

<http://www.plouffe.fr/simon/constants/zeta100.html>