

## Counter Examples to Riemann Hypothesis

Ekta Singh, Director  
 Nyaysangat Foundation

### Abstract

- I. As of august 1, 2002, 100 billion zeros have been shown to satisfy RH. Besides the actual number of zeros, also of interest is their height up the critical line, and the accuracy (number of decimal places) in their value.
- II. There is a formula for the number  $N(T)$  of zeroes up to a given height  $T$ : namely, it is approximately  $(T/2\pi) \log(T/2\pi) - T/2\pi$ .
- III. The harmonic series adds up to infinity, mean given any number 's', no matter how large, the sum of the harmonic series eventually exceeds s. No "infinity". The whole of the analysis was rewritten in this kind of language in the middle third of the nineteenth century. Any statement that cannot be so rewritten is not allowed in modern mathematics. You can consider the relation as mapping by their domain and range. Is each relation a function? The answer is not function.
- IV. If an element in the first set (domain) is associated with more than one element in the second set (range) then the relation is not a function, definite set gone by in time and no longer existing.
- V. **Kirchhoff's** Laws, or circuit laws, are two mathematical equality equations that deal with electricity, current and voltage (potential difference) in the lumped element model of electrical circuits
- VI. A trick of bell curved graph of the normal distribution shows the approximation to the prime distribution.

**Keywords:** RH, Riemann Hypothesis, NYAYSANGAT FOUNDATION,

Date of Submission: 24-09-2019

Date of Acceptance: 12-10-2019

### I. Introduction

- i. The Riemann Hypothesis was First conjectured by Bernhard Riemann in 1859,
- ii. In his paper "On the Number of Primes Less Than a Given Magnitude" [1].
- iii. In that paper, he defines the zeta function as  

$$\zeta(s) = 1/1^s + 1/2^s + 1/3^s + 1/4^s + 1/5^s + \dots + 1/n^s$$
- iv. Where  $n = 1, 2, 3, 4, 5, \dots, \infty$  (infinity)
- v.  $s =$  any number

Proof -

If  $n$  is a real number then,  $n^2 > n$

$$\begin{aligned} 0^2 &= 0 \\ 0 &= 0 \\ n &= 0 \end{aligned}$$

The number 0 signifies something which is growing without limits or bounds. It is a number that has an infinite numerical value that cannot be counted.

Reading a conjecture is not like reading a novel. An easy and proven method for getting the information without having to cram or underline bunch of stuff, simply follow the easy steps I have covered here and see how easily we can solve it.

Zeta Function – 
$$\zeta(s) = 1/1^s + 1/2^s + 1/3^s + 1/4^s + 1/5^s + \dots + 1/n^s$$
  
 Where  $n = 1, 2, 3, 4, 5, \dots, \infty$  (infinity)  
 $s =$  any number

Kirchhoff's Loop Rule states that the sum of the voltage differences around the loop must be equal to **zero**. To find the sum, a direction of travel must be chosen. The direction of positive current is given as clockwise, and so it is easiest to use this as the direction of travel to find the sum.

The Kirchhoff's second law is based on the voltage source in the closed path of the electrical circuit. This law is known as "Mesh Law" or "Loop Law". The Kirchhoff's voltage laws are stated as, **"In the electric circuit, the algebraic sum of all voltage in closed loop (or mesh) is zero"**.

Determining the equation of the voltage by using the mesh & loop analysis.

Formula,

For the Loop or Mesh,

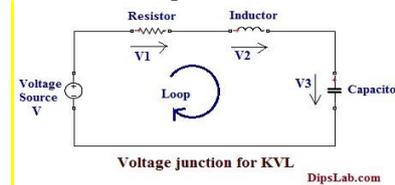
$$(V_1 + V_2 + V_3 + V_4 + \dots + V_n = 0)$$

The equivalent voltage express as,

$$\Sigma(V) = 0$$

Where,  $\Sigma(V) = (V_1 + V_2 + V_3 + V_4 + \dots + V_n)$

In the below diagram, it consists of a voltage source (V) and the drop voltages across each component (Resistor, inductor, and capacitor). The representation of the Equation is,



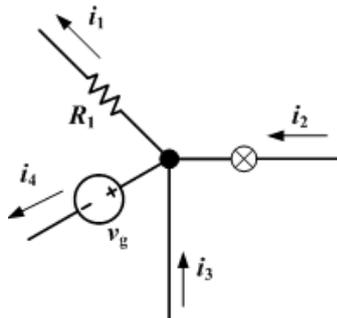
For loop,  $V=(V_1+V_2+V_3)$

Where,

V is the total voltage.

V1, V2 and V3 are the drop voltage of the different components.

Kirchhoff's First Law states that the total current entering a junction is equal to the total current leaving the junction. OR The algebraic sum of currents at a junction is zero.



Referring to the diagram above, the current entering any junction is equal to the current leaving that junction.

Hence,  $i_1 + i_4 = i_2 + i_3$

Kirchhoff's first law is a statement of the conservation of charges.

- Whatever current enters a given junction in a circuit must leave that junction since charge cannot be created or destroyed at a junction.
- Charge cannot escape from the wire but has to flow around the circuit.

## II. Counter Examples To Show The Conjecture Is False

### EXAMPLE 1

This is simple arithmetic progression.

A sum of natural numbers from 1 to n. The answer is  $n(n+1)/2$ . At least, this is what we were taught all throughout our schooling. So, if 'n' were to tend to infinity, summation should tend to infinity. Right? Wrong!! Yes, mathematicians are saying 'no'. Is there some hidden mystery behind this?

Consider  $S = 1+2+3+4+5+6+7+8, \dots$

Ok. If the answer is not infinity which may be by some invisible hand, at least the sum should be positive. See 'S'; all terms are positive. So the sum is positive. Right? Again a 'no'.

How a double 'no'??? Are we being played by number theorists? Is this some pseudo-science? It can't be negative. Never negative!! So let's leave this sum which looks too tricky. Let me write something else. I always revered Ramanujan as one of the greatest mathematicians of all time. The sheer genius of Ramanujan in number theory always fascinated us. The great man often ignored proofs for many of the derivations. It's like this; a genius looks at a problem, the path looks obvious, so he skips the steps, reaches the solution, but the

mathematicians are still pondering on the left conjectures. So yes Ramanujan also did interesting mathematics in the field of infinite summation and the next statement shocks me!!! Ramanujan's method for summation of numbers, points to the fact 'S' = -1/12. Ramanujan? Did he not study basic formula  $n(n+1)/2$ ? Or those divergent series stuff? But one more eminent mathematician's work went into proving 'S' = -1/12.

This was "Riemann". Yes he is well known for zeta functions and reputed as one of the best mathematicians of recent times; but -1/12??

With such great minds saying 'S' = -1/12, I am now skeptical. Can the sum be -1/12? Can we try a method to prove this?

$$\text{Let } S = 1+2+3+4+5+6+7$$

$$\text{Consider } S_1 = 1-1+1-1+1-1+1-1\dots$$

Now, this sum should be 0 or 1 based on number of natural numbers taken. If infinite numbers are even,  $S_1=0$ , if odd  $S_1=1$ . But, Riemann zeta function gives it a value of  $1/2$ . Mathematical community too agrees that the sum is  $1/2$ . How? At first instance, it feels like the whole communities of mathematicians are playing a prank. It is like celebrating April fool's day! But yes, serious mathematical work went into the proof. If you are interested to know, please go through Ramanujan's summation principles and zeta function. Let me try a simple proof avoiding all the complexity.

$$S_1 = 1-1+1-1+1-1+1\dots$$

$$1-S_1 = 1-(1-1+1-1+1-1+1\dots)$$

$$1-S_1 = 1-1+1-1+1-1+1\dots$$

$$1-S_1 = S_1$$

$$\text{So, } S_1 = 1/2$$

Several objections can be put like why not the alternative solution of 0 or 1? But as stated before, we need much powerful tools in mathematics like zeta functions to come to unique solution of  $1/2$ .

For now, we could agree  $S_1 = 1/2$ .

$$\text{Let } S_2 = 1-2+3-4+5-6+7\dots$$

$$\text{So, } S_2 = 1-2+3-4+5-6+7-8+9\dots$$

$$S_2 = 1-2+3-4+5-6+7-8\dots \quad \text{I have shifted RHS by a unit position}$$

$$+ 2S_2 = 1-1+1-1+1-1+1\dots$$

$$\text{Hence, } 2S_2 = S_1$$

$$\text{Therefore, } S_2 = 1/4$$

Let's come back to our sum of infinite numbers.

$$S = 1+2+3+4+5+6+7+8+9\dots$$

$$S_2 = 1-2+3-4+5-6+7-8+9\dots$$

$$\text{So, } S - S_2 = 4+8+12+16+20\dots$$

$$\text{Hence, } S - S_2 = 4(1+2+3+4+5+6+7+8\dots)$$

$$S - S_2 = 4S$$

$$\text{So, } -S_2 = 3S$$

$$\text{And, } S = -S_2/3 = -1/12$$

Amazing!!! Our sum is negative! It looks like god plays with numbers in a bizarre way. This shocking result is not known to many non-mathematicians. Number-theorists call it "One of the most remarkable formulae in science". This summation is a secret of mathematics kept away from layman. Further, it is interesting to know 'S' = -1/12 has been used to derive the equations in "string theory", quantum field theory and in some complex analytics.

So now you know sum of positives can be negative.

## EXAMPLE 2

### FUNDAMENTAL THEOREM OF ARITHMETIC

Imagine we are living in prehistoric times.

How did we keep track of time without a clock?

All clocks are based on some repetitive pattern which divides the flow of time into equal segments divides the flow of time into equal segments.

To find the patterns, we look towards the heavens.

The sun rising and falling each day is the most obvious.

However, to keep track of longer periods of time, we looked for longer cycles.

For this we looked to the moon which seemed to gradually grow and shrink over many days.

When we count the number of days between full moons, we arrive at the number 29.

This is the origin of a month.

However, if we try to divide 29 into equal pieces, we run into a problem.

It is impossible.

The only way to divide 29 into equal pieces is to break it back down into single units.

29 is a prime number.

Think of it as unbreakable.

If a number can be broken down into equal pieces greater than one, we call it a composite number.

Now, if we are curious, we may wonder how many prime numbers are there, and how big do they get.

Let's start by dividing all numbers into two categories.

We list the primes on the left, and the composites on the right.

At first they seem to dance back and forth.

There is no obvious pattern here.

So, let's use a modern technique to see the big picture.

The trick is to use a Glass Spiral

First we list all possible numbers in order in a growing spiral.

Then we color all the blue prime numbers blue.

Finally, we zoom out to see millions of numbers.

This is the pattern of primes, which goes on and on forever.

Incredibly, the entire structure of this pattern is still unsolved today.

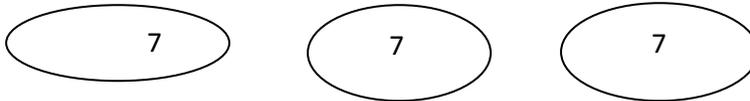
We are on to something.

So let's fast forward to around 300 BC in Ancient Greece.

A philosopher known as Euclid of Alexandria understood that all numbers could be split into these two distinct categories.

He began by realizing that any number can be divided down over and over until you reach a group of smallest equal numbers.

And the definition, these smallest numbers always prime numbers are always prime numbers



So he knew that all numbers are somehow built out of smaller primes.

To be clear, imagine the universe of all numbers, and ignore the primes.

Now, pick any composite number and break it down, and you are always left with prime numbers.

So Euclid knew that every number could be expressed using a group of smaller primes

3

3

3

3

Think of these as building blocks.

No matter what number you choose,

$$15 = 3+3+3+3+3$$

$$25 = 5+5+5+5+5$$

$$49 = 7+7+7+7+7+7+7$$

It can always be built with an addition of smaller primes.

This is the root of his discovery, known as the fundamental theorem of arithmetic, as follows

$$30 = 2+2+2+2+2+2+2+2+2+2+2+2+2+2+2+2$$

$$30 = 3+3+3+3+3+3+3+3+3+3$$

$$30 = 5+5+5+5+5$$



Take any number, say 30, and find all the prime numbers, it divides into equally.

This we known as factorization.

This will give us prime factors.

In this case, 2, 3, and 5 are the prime factors of 30.

Euclid realized that you could then multiply these prime factors in number of times to build original number.

$$30 = 2*3*5 = xyz$$

In this case, you simplify multiply each factor once to build 30.

2 times 3 times 5 is the prime factorization of 30.

Think of it as a special key, or combination.

There is no other way to build 30 using some other groups of prime numbers multiplied together.

So every possible number has one, and only one prime factorization.

A good analog is to imagine each number as a different lock.

The unique key for each lock would be its prime factorization.

No two locks share a key.

No two numbers share a prime factorization.

### EXAMPLE 3

Limits are used to know the behaviors of a function

3.1415926535 8979323846 2643383279 5028841971 6939937510 5820974944 5923078164 0628620899  
8628034825 3421170679 8214808651 3282306647 0938446095 5058223172 5359408128 4811174502  
8410270193 8521105559 6446229489 5493038196 4428810975 6659334461 2847564823 3786783165  
2712019091 4564856692 3460348610 4543266482 1339360726 0249141273 7245870066 0631558817...

### CALCULUS

Calculus is a field of Mathematics, tell us change is everywhere around us.

- ✓ Babies grow
- ✓ Bank balance
- ✓ Your position keeps on changing
- ✓ Number of face book friends
- ✓ Amount of data keeps accumulating

The field of mathematics which deals change is calculus.

As we know hearts of calculus are two ideas

- ❖ Derivative
- ❖ Integral

Derivative means - How fast something is changing

And there are two flavors of calculus:

- ❖ Average Rate of Change
- ❖ Instantaneous Rate of Change

Rate of Change means:

1. Whenever something is changing = 1
2. Changing with respect of something = 2

And then define relationship between two entities that will be  $\frac{1}{2}$

For Example – Face book Relationship.

Face book relationship - committed, committed is not a single entity, it's a relationship between two peoples which tells important information to both people.

Facebook is a firm, its source of earning are data. Data are information and information is critical to any advertising or marketing activity. Facebook does not steal any kind of data, people provide their own personal information to Facebook in exchange for the free use of the platform. Facebook's ends are not political since money has no political colour, Facebook is just an enormous firm which has gained a strong, almost monopolistic, position. So, as you could rightly argue, what's the point of Foucault's theory and what it has to do with Facebook? The point is that power of the *panopticon* is inside Facebook, a social platform with 2 billion people data. The basis for the disciplinary society for Foucault is the possibility to monitor everyone in every moment and Facebook (in general social media) goes even beyond the capabilities related to simple observation, Facebook could track behaviours and record activities, it has more surveillance power than any other institutions in human history. Initially, such powers translated itself just into money for Zuckerberg and into ads for us, but in recent times things have changed, drastically changed.



Figure of panoptical

**EXAMPLE 4**

SIXSIGMA define zero defects. Zero defects cannot be zero defects literally because 100 % efficiency is not possible. A set of management techniques intended to improve business processes by greatly reducing the probability that an error or defect will occur. Sigma is a Greek alphabet small (s) means (standard deviation) and capital sigma means sum.

Following Six Sigma methodologies

DMAIC

5S (methodology)



5S is a workplace organization method that uses a list of five Japanese words: *seiri* (整理), *seiton* (整頓), *seisō* (清掃), *seiketsu* (清潔), and *shitsuke* (躰). These have been translated as "Sort", "Set In order", "Shine", "Standardize" and "Sustain".<sup>[1]</sup> The list describes how to organize a work space for efficiency and effectiveness by identifying and storing the items used, maintaining the area and items, and sustaining the new order. The decision-making process usually comes from a dialogue about standardization, which builds understanding among employees of how they should do the work.

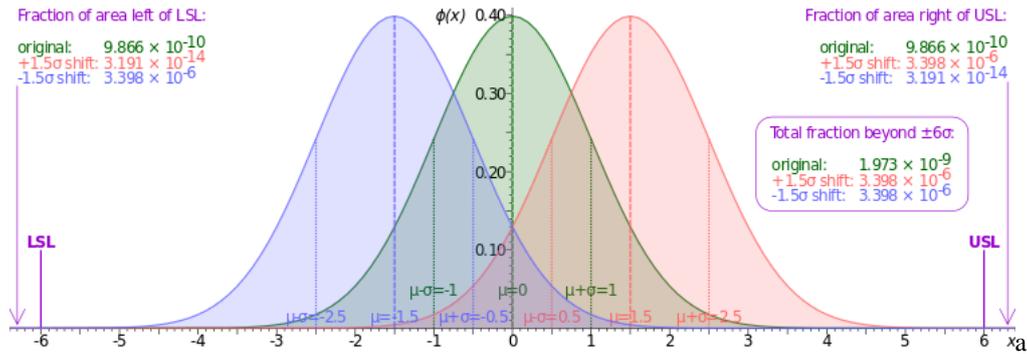
In some quarters, 5S has become 6S, the sixth element being safety.

The output of engineering and design in a lean enterprise is information, the theory behind using 5S here is "Dirty, cluttered, or damaged surfaces attract the eye, which spends a fraction of a second trying to pull useful information from them every time we glance past. Old equipment hides the new equipment from the eye and forces people to ask which to use.



In the preface to Principia Mathematica, Whitehead and Russell note that –

The very abstract simplicity of the ideas of this work defeat language. Language can represent complex ideas more easily. The proposition “a whale is big “represents language at its best, giving terse expression to a complicated fact; while the true analysis of” one is a number” leads, in language, to an intolerably prolixity. They were not kidding.



Graph of the normal distribution, which underlies the statistical assumptions of the Six Sigma model. In the centre at 0, the Greek letter  $\mu$  (mu) marks the mean, with the horizontal axis showing distance from the mean, marked in standard deviations and given the letter  $\sigma$  (sigma). The greater the standard deviation, the greater is the spread of values encountered. For the green curve shown above,  $\mu = 0$  and  $\sigma = 1$ . The upper and lower specification limits (marked USL and LSL) are at a distance of  $6\sigma$  from the mean. Because of the properties of the normal distribution, values lying that far away from the mean are extremely unlikely: approximately 1 in a billion too low, and the same too high. Even if the mean were to move right or left by  $1.5\sigma$  at some point in the future (1.5 sigma shift, colored red and blue), there is still a good safety cushion. This is why Six Sigma aims to have processes where the mean is at least  $6\sigma$  away from the nearest specification limit. Here is a trick of bell curved graph of the normal distribution shows the approximation to the prime distribution. The formula used here to calculate the DPMO is thus

$$DPMO = 1,000,000 \cdot (1 - \phi(\text{level} - 1.5))$$

Sigma level	Sigma (with 1.5 $\sigma$ shift)	DPMO	Percent defective	Percentage yield	Short-term $C_{pk}$	Long-term $C_{pk}$
1	-0.5	691,462	69%	31%	0.33	-0.17
2	0.5	308,538	31%	69%	0.67	0.17
3	1.5	66,807	6.7%	93.3%	1.00	0.5
4	2.5	6,210	0.62%	99.38%	1.33	0.83
5	3.5	233	0.023%	99.977%	1.67	1.17
6	4.5	3.4	0.00034%	99.99966%	2.00	1.5
7	5.5	0.019	0.0000019%	99.9999981%	2.33	1.83

EUCLID’S GEOMETRY –

Meaning of Postulates: Assumed truth without proof, or as self – evident.

Postulates 2 define “A terminated line can be produced indefinitely.” The second postulates say that a line segment can be extended on either side to form a line.

We all know -

Rule – Conjectures should be based on inductive reasoning. Reasoning that uses a number of specific examples to arrive at a conclusion.

Conjecture – “A concluding statement that is reached using inductive reasoning” but here he applied convergent thinking with deductive method.

For Ex –

Write a conjecture that describes the pattern 2, 4, 12, 48, 240. Then use your conjecture to find the next item in the sequence.

Look for a pattern -

2    4    12    48    240

Multiplying    2\*2   4\*3   12\*4   48\*5

Make a conjecture – The numbers are multiplied by 2, 3, 4, and then 5. The next number will be the product of 240\*6 or 1440

Answer – 1440

In RH conjecture –

Look for pattern

Zeta Function –

Zeta Function –  $\zeta(s) = 1/1^s + 1/2^s + 1/3^s + 1/4^s + 1/5^s + \dots + 1/n^s$   
 Where  $n = 1, 2, 3, 4, 5, \dots, \infty$  (infinity)  
 $s = \text{any number}$

If  $\zeta(2) = 1 + 1/2^2 + 1/3^2 + 1/4^2 + 1/5^2 + \dots + 1/n^2$

When you realize

$1^2 = 1$

$2^2 = 4$

$3^2 = 9$

What about  $(1/2)^2$

If we square  $1/2$  you get  $= 1/4$  and  $1/4^{\text{th}}$  is not larger than  $1/2$

Consider the fractions  $3/5$ .

What happens when the denominator is increased? Number of parts you divide into they become smaller and smaller.

So, in zeta function

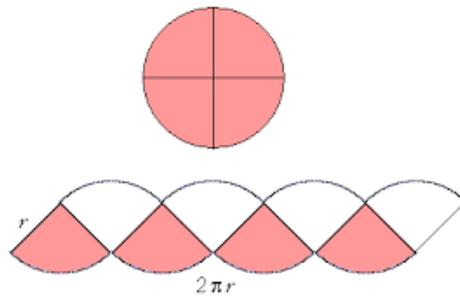
As we know that –

Area of Circle =  $\pi r^2$

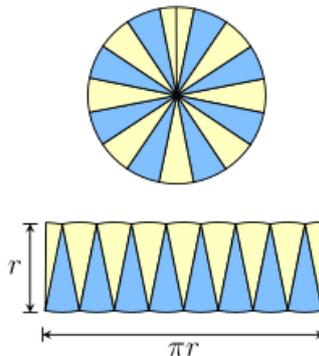
Therefore we can Proof of Area of circle by below steps -

Steps 1 - Chop area into 4 quarters and then rearrange the figure.

Step 2 – Repeat with 8 slices and then rearrange figure.

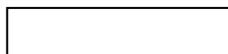


Step 3 – Repeat with more slices and takes to infinity, break infinite pieces and break and rearrange. Practically not possible but we can imagine.



When we take infinity concept, we will find the shape of rectangle. Now we can easily proof the area of circle.

: Area of a Limit is  $L \times B$



We can easily find area of rectangle but villain is curve. Integrals can be used to find areas, volumes, central points.

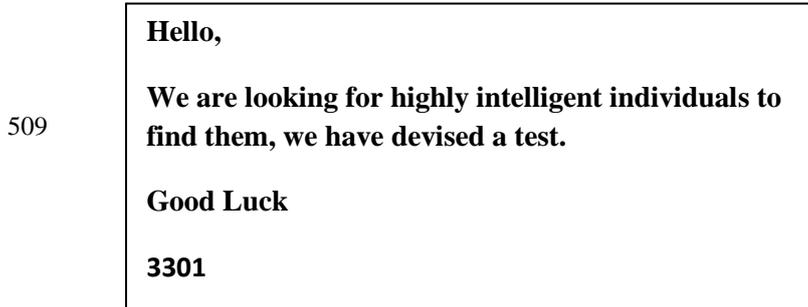
Integral – How something is accumulating.

For Example – Downloading a movie.

In case if you are downloading movie essentially you are downloading data. And the same data is accumulating on your mobile or PC's. If a person asks question how much time you have taken to download data in your mobile? This question will be related with integral. We can say – Data Accumulated = Area Enclosed

For Example –

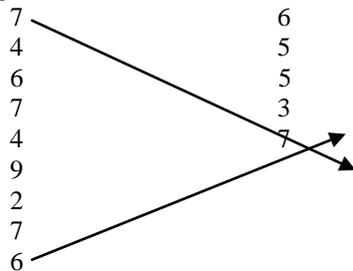
There are three prime number associated with this image. 3301 is one of them.  
503



Prime\*Prime - '7467492769579356967270197440403790283193525917787433  
197237231759008957255433116469460882489015469125000179  
524189783'

n = 746749278.....  
e = 65537

See the pattern here -



In the mathematical branch of moonshine theory, a super singular prime is a prime number that divides the order of the Monster group M which is the largest sporadic simple group.

It is now known that lying behind monstrous moonshine is a vertex operator algebra called the moonshine module (or monster vertex algebra) constructed by Igor Frenkel, James Lepowsky, and Arne Meurman in 1988, having the monster group as symmetries. This vertex operator algebra is commonly interpreted as a structure underlying a two-dimensional conformal field theory, allowing physics to form a bridge between two mathematical areas. The conjectures made by Conway and Norton were proven by Richard Borcherds for the moonshine module in 1992 using the no-ghost theorem from string theory and the theory of vertex operator algebras and generalized Kac–Moody algebras.

In 1978, John McKay found that the first few terms in the Fourier expansion of the normalized J-invariant (sequence A014708 in the OEIS),

$$J(\tau) = \frac{1}{q} + 196884q + 21493760q^2 + 864299970q^3 + 20245856256q^4 + \dots$$

with  $q = e^{2\pi i\tau}$  and  $\tau$  as the half-period ratio could be expressed in terms of linear combinations of the dimensions of the irreducible representations  $T_n$  of the monster group M (sequence A001379 in the OEIS) with small non-negative coefficients. Let  $T_n = 1, 196883, 21296876, 842609326, 18538750076, 19360062527, 293553734298 \dots$  then,

$$\begin{aligned}
 1 &= r_1 \\
 196884 &= r_1 + r_2 \\
 21493760 &= r_1 + r_2 + r_3 \\
 864299970 &= 2r_1 + 2r_2 + r_3 + r_4 \\
 20245856256 &= 3r_1 + 3r_2 + r_3 + 2r_4 + r_5 \\
 &= 2r_1 + 3r_2 + 2r_3 + r_4 + r_6 \\
 333202640600 &= 5r_1 + 5r_2 + 2r_3 + 3r_4 + 2r_5 + r_7 \\
 &= 4r_1 + 5r_2 + 3r_3 + 2r_4 + r_5 + r_6 + r_7
 \end{aligned}$$

(Since there can be several linear relations between the  $r_n$  such as  $r_1 - r_3 + r_4 + r_5 - r_6 = 0$ , the representation may be in more than one way.) McKay viewed this as evidence that there is a naturally occurring infinite-dimensional graded representation of  $M$ , whose graded dimension is given by the coefficients of  $J$ , and whose lower-weight pieces decompose into irreducible representations as above. After he informed John G. Thompson of this observation, Thompson suggested that because the graded dimension is just the graded trace of the identity element, the graded traces of nontrivial elements  $g$  of  $M$  on such a representation may be interesting as well.

Conway and Norton computed the lower-order terms of such graded traces, now known as McKay–Thompson series  $T_g$ , and found that all of them appeared to be the expansions of Hauptmoduln. In other words, if  $G_g$  is the subgroup of  $SL_2(\mathbb{R})$  which fixes  $T_g$ , then the quotient of the upper half of the complex plane by  $G_g$  is a sphere with a finite number of points removed, and furthermore,  $T_g$  generates the field of meromorphic functions on this sphere.

Based on their computations, Conway and Norton produced a list of Hauptmoduln, and conjectured the existence of an infinite dimensional graded representation of  $M$ , whose graded traces  $T_g$  are the expansions of precisely the functions on their list.

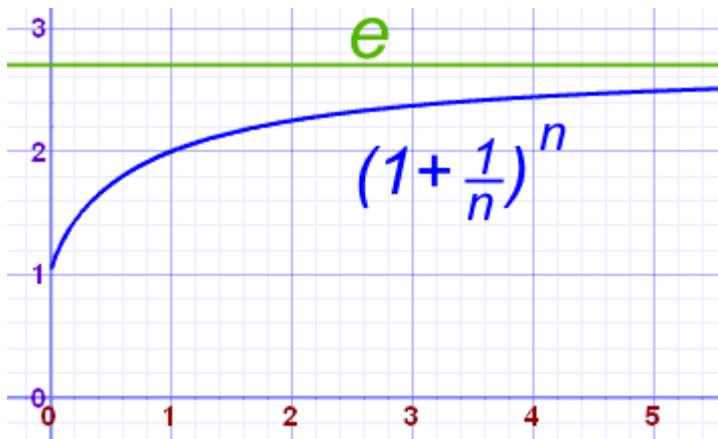
Working Out "e"

Mathematically square root of  $-1$  is called an “imaginary number denoted by “i” and is used by Mathematicians and scientists to solve complex problems.

There is a formula for the value of  $e$  (Euler's number) based on infinity and this formula:  
 $(1 + 1/n)^n$

At Infinity:  $(1+1/\infty)^\infty = ??? \dots$  We don't know!

So instead of trying to work it out for infinity (because we can't get a sensible answer), let's try larger and larger values of n:



N	$(1 + 1/n)^n$
1	2.00000
2	2.25000
5	2.48832
10	2.59374

100	2.70481
1,000	2.71692
10,000	2.71815
100,000	2.71827

It is heading towards the value 2.71828... So again we have an odd situation:

- We don't know what the value is when n=infinity
- But we can see that it settles towards 2.71828...

So we use limits to write the answer like this:

$$\lim_{n \rightarrow \infty} \left(1 + \frac{1}{n}\right)^n = e$$

It is a mathematical way of saying "we are not talking about when n=∞, but we know as n gets bigger, the answer gets closer and closer to the value of e".

We can see by the graph and the table that as n get larger the function approaches 2.71828....

But trying to use infinity as a "very large real number" (*it isn't!*) gives this:

$$(1+1/\infty)^\infty = (1+0)^\infty = (1)^\infty = 1 \quad (\text{Wrong!})$$

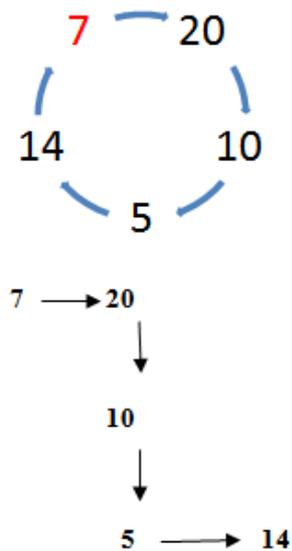
So don't try using Infinity as a real number: you can get wrong answers!

Limits are the right way to go.

Einstein prime with no imaginary part and real part of the form 3n-1.

**If n even    n → n/2**

**If n odd    n → 3n-1**



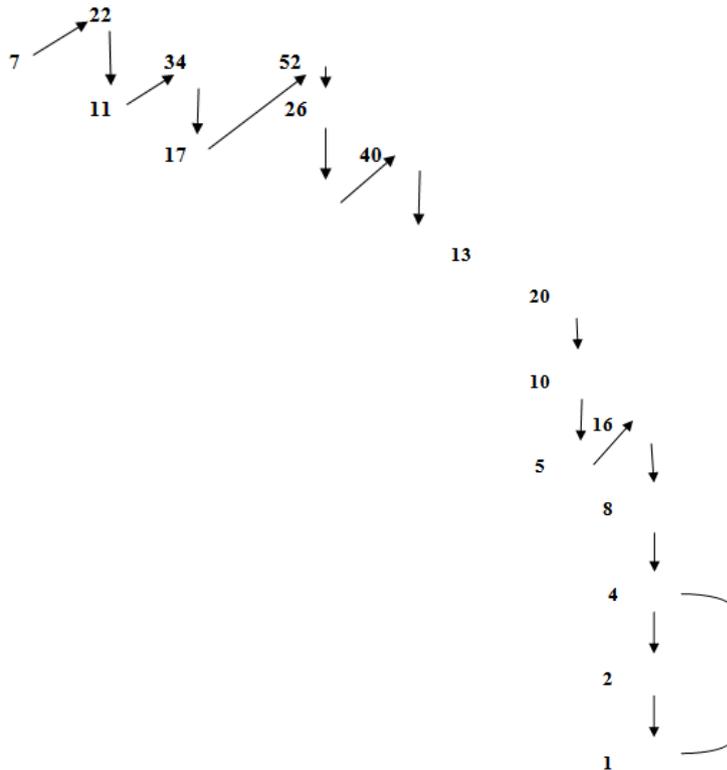
We can start with a natural number n. If n is odd, multiply by 3 and add 1 to get 3n+1. If n is even, divide by 2 to get n/2

Sequences of 7 will be -

22, 11, 34, 17, 52, 26, 13, 40, 20, 10, 5, 16, 8, 4, 2, 1

If n even  $n \rightarrow n/2$

If n odd  $n \rightarrow 3n+1$



29 is also the 10<sup>th</sup> super singular prime. 29<sup>th</sup> is the smallest positive whole number (1, 2, 3, 4), using exactly once and using only addition, subtraction, multiplication, and division.

Simple Proofs of Pythagorean Theorem

In the figure below are shown two squares whose sides are a + b and c. let us write that the area of the large square is the area of the small square plus the total area of all 4 congruent right triangles in the corners of the large square.

$$(a + b)^2 = c^2 + 4 (1/2) (a*b)$$

Expand the left hand side of the above equality, and simplify the last term on the right

$$a^2 + b^2 + 2 a*b = c^2 + 2 a*b$$

Simplify to obtain

$$a^2 + b^2 = c^2$$

a and b are the sides of the right triangle and c is its hypotenuse.

Example – 5

Try the most addictive game in the world – Chess is played all over the world. Algebraic notation (or AN) is a method for recording and describing the moves in a game of chess. It is based on a system of coordinates to uniquely identify each square on the chessboard.

		BLACK.							
8	a 8	b 8	c 8	d 8	e 8	f 8	g 8	h 8	
7	a 7	b 7	c 7	d 7	e 7	f 7	g 7	h 7	
6	a 6	b 6	c 6	d 6	e 6	f 6	g 6	h 6	
5	a 5	b 5	c 5	d 5	e 5	f 5	g 5	h 5	
4	a 4	b 4	c 4	d 4	e 4	f 4	g 4	h 4	
3	a 3	b 3	c 3	d 3	e 3	f 3	g 3	h 3	
2	a 2	b 2	c 2	d 2	e 2	f 2	g 2	h 2	
1	a 1	b 1	c 1	d 1	e 1	f 1	g 1	h 1	
		WHITE.							
		a	b	c	d	e	f	g	h

As an effective method, an algorithm can be expressed within a finite amount of space and time and a well defined formal language for calculating a function.

Prime number factorization is a commonly used practice in encryption techniques like public key encryption systems. They are large semi primes to secure the encryption. To break it, you will need to find the prime factorization of the sizable semi – prime numbers. This means that two or more prime numbers when multiplied together result into the original numbers. When small prime numbers are used, it is simple to original numbers. When small prime numbers are used, it is simple to crack the technique, but it gets hard when the numbers get large. The prime numbers have a non – linear distribution and the process followed to use the method is a trial and error process.

The most elementary mathematical facts, such as power laws does not support Reimann hypothesis.

### Example – 6

#### What is Computer Forensics?

- “Forensic computing is the process of identifying, preserving, analyzing and presenting digital evidence in a manner that is legally acceptable.”
- Evidence might be required for a wide range of computer crimes and misuses.
- Information collected assists in arrests, prosecution, termination of employment, and preventing future illegal activity.

Digital Evidence – “ Any data that is recorded or preserved on any medium in or by a computer system or other similar device, that can be read or understand by a person or a computer system or other similar device. It includes a display, print out or other output of that data.

Top 10 locations for evidence –

1. Internet history files
2. Temporary Internet Files
3. Slack/Unallocated Space
4. Buddy lists, personal chat room records, others saved areas
5. News groups/club lists/posting
6. Settings, folder structure. File names
7. File Storage Dates
8. Software/Hardware added
9. File Sharing ability
10. E – Mails

Experiment begin on Neeru Saini, Assistant manager on EXL,

This mail sent her to show the magic but hidden meaning are behind the words -

E - Mail was given below -

May this magic bring you joy. Spark your imagination. Feed your sense of wonder. After all, it starts with CNO family. My favorite member of the CNO family is “NEERU SAINI”.

I have created deep story around the corner. Perhaps for her. I think twice, “ Why this lady is attracting me, what is actually happening with me?

I started prayer and ask to “GOD” I don’t know but a “Beautiful Lady” in my office regularly attracting me like magnet attracts iron.

God replied, “ Dear, kindly look into deep, your office name is “EXL” Look Deeper”, “ she want to remind you that must recognize the design of this special pattern. We noticed that the design have not yet been visualize in such a way.

A great IDEA hidden behind their names.

And when I started to look deeply I find magical things –

The five people afflicted with pattern.

Neeru – Light ( Project Manager)

Anil – wind (Asst, Manager)

Raj – Dominating presence (Asst. Manager)

Rohit – Red (CEO)

Nupur – Super sweet person (Associate)

PATTERN WILL BE -

Dominating presence of Supreme Sweet Person exist in red light wind.

They can be GOD’s Holy Spirit which represents faithfulness, Goodness, Joy, Kindness.

The chemical element of atomic no. 85, a radioactive member of the halogen group with alpha particles occurs in traces in a particular place.

An appeal for prayer more together with other people regarding reducing or offsetting the unpleasant or unwelcome effects of something.

A planned gift for a unique radiant girl with a kind giving heart.

She need to show the people that you are strong. You should not shed tears because the universe is on best known cyclic progress.

“THE NINTH CHAPTER OF THE “BIBLE” IS THE SUBJECT TO FOLLOW.

#### PROCESS CNO WITH OTHER MEANINGS

In Science – GROUP – 16

PATTERN will be

DOMINATING PRESENCE OF SUPREME SWEET PERSON EXIST IN RED LIGHT WIND.

PERIODIC TABLE - OXYGEN FAMILY IS RELATED WITH THIS PATTERN.

#### CNO IS A MOLECULAR FORMULA

The CNO cycle ( for carbon – nitrogen – oxygen ) is one of the two known sets of fusion reactions by which stars convert hydrogen to helium, the other being the proton – proton chain reactions.

We can easily prove that GOD is existing between us

Let’s understand by

NUCLEAR means the process which involves Nucleus

FUSION means two or more entities coming together or merging together to form one single entity.

Simply Nuclear Fusion means: FUSION OR COMBINATION OF NUCLEI.

Nuclear Fusion can be defined as a nuclear reaction, in which lighter nuclei are combined together to form heavier nuclei with the release of enormous amount of energy.

Similarly, we can relate these five people with the same principle, they are releasing enormous amount of energy in the form of pattern,

“The dominating presence of super sweet person exists in red light wind.”

“The stated aim of magic is to identify GOD” between us”.

Thank you.

Sincerely,

Ekta Singh

DECODED MAIL AS -

CNO IS A MOLECULAR FORMULA - The CNO cycle ( for carbon – nitrogen – oxygen ) is one of the two known sets of fusion reactions by which stars convert hydrogen to helium, the other being the proton – proton chain reactions. We can easily prove that GOD is exists between us.

Let’s understand by

NUCLEAR means the process which involves Nucleus

FUSION means two or more entities coming together or merging together to form one single entity.

Simply Nuclear Fusion means: FUSION OR COMBINATION OF NUCLEI. Nuclear Fusion can be defined as a nuclear reaction, in which lighter nuclei are combined together to form heavier nuclei with the release of enormous amount of energy.

Similarly, we can relate these seven people with the same principle, they are releasing enormous amount of energy in the form of pattern,

The design of this special program is to detect hidden pattern behind the secret meaning of names. For

Example -

Neeru – Light

Anil – wind

Raj – Dominating presence

Rohit – Red

Nupur – Super sweet person

Shefali – flower

Ekta - Unity

A light of super sweet persons glowing in family of God their dominating presence is exists in red light wind on united flowers.

“The stated aim of this game to spread awareness that “GOD” is exists between us”.

This is Pattern detection by a divine message to focus on positive things.

“THE NINTH CHAPTER OF THE “BIBLE” IS THE SUBJECT TO FOLLOW”.

Just Imagine that the meaning of “CNO (5)” is a signal to retrieve the data through binary codes 0, 1 through Artificial Intelligence Game. “We are all connected and share emotions and though with higher powers. They are looking out for us.”

Software can have only two values, 0 and 1, the 0 and 1 do not represent actual numbers and meanings, instead a state of a voltage which is known as the logic level.

This software is a tool for the analysis and design to retrieve logical data.

0 – Low

1 – High

This software which consists of binary variables, the constant 0 and 1, and the logic operations symbols simplifies the complexity of signals of very high intensities.

Today we use cryptography for a lot more than just sending secret messages. The encryption key is piece of data that allows the computation of E. Similarly we have the decryption key. These may or may not be the same. They also may not be secret. But we are providing more secure secret language based on block chain work. By allowing digital information to be distributed using

security service to protect language from online attacks and language is resistant to modification Each transaction is digitally signed to ensure its authenticity and that no one tampers with it.

This programming language can deliver real business value, be equitable to all participants, and collaboration.

This programming language is an umbrella of open source “natural hidden language” a new, unfamiliar idea.

FOR EXAMPLE -

Look deeper to determine the real value in the information. It demonstrates a very clear grasp of the complexities of the subject and powerful analytical abilities.

Example - 7

A MODICUM OF MATHEMATICS

Integers - Positive and negative counting numbers as well as 0, i.e.  $\{ \dots, -2, -1, 0, 1, 2, \dots \}$ . Prime.

A positive integer that is divisible only by 1 and itself, e.g. 2, 3, 5, 7, 11. . . 4136658067, . . . . The largest known prime today is 2

20996011 – 1, and has 6320430 digits. Integers that aren't prime are called

composite. Factoring. Writing an integer as a product of smaller integers, e.g.  $60 = 22$

$\cdot 3 \cdot 5$ . Primarily test. A test to decide whether or not an integer is prime. This is not the same as factoring.

Probabilistic primarily test. A test to decide whether or not an integer is prime to an (explicitly computable) high probability. Integers that pass these tests are called pseudo primes, and in applications are just as useful as honest primes.

Each user has an encryption function and a decryption function.

- Alice makes her encryption function EA publicly known, but keeps her decryption function DA secret.
- Bob wants to send Alice a message P, so he computes  $C = EA(P)$  and sends it to her.

• Alice receives  $C$  and computes  $P = DA(C)$ . What makes this different from previous schemes, and why is it secure? The point is that the encryption/decryption functions are set up so that  $DA$  is very difficult to compute only knowing  $EA$ . Thus, even if an attacker knows  $EA$ , he can't compute  $DA$  and hence can't read Bob's message.

### III. Conclusion

1. 'S' stands for security, stands for screen. The one advancement 's' could indicate s is scanned for security, detachment of s from the main function, a large riddle sort it out.
2. The harmonic series adds up to infinity, mean given any number 's', no matter how large, the sum of the harmonic series eventually exceeds s. No "infinity". The whole of the analysis was rewritten in this kind of language in the middle third of the nineteenth century. Any statement that cannot be so rewritten is not allowed in modern mathematics. You can consider the relation as mapping by their domain and range. Is each relation a function? The answer is not function.
3. If an element in the first set (domain) is associated with more than one element in the second set (range) then the relation is not a function, definite set gone by in time and no longer existing.
4. Rule of logarithm – Logarithm is a way of showing how big a number is in how many times you have to multiply a certain number.
5. An algorithm presents step by step instructions required to solve the problem. Each and every step should be precise and clear.  
 Represent number by  $N$  and sum by  $S$   
 Initialize  $S$  by 0  
 Initialize  $N$  by 1  
 Add  $N$  to  $S$  to get the next number  
 Add 1 to  $N$  to get the next number  
 Repeat steps 4 and 5 until  $N$  is equal to 100  
 $S$  has the sum of all the natural numbers from 1 to 100.

- VII. As of August 1, 2002, 100 billion zeros have been shown to satisfy RH. Besides the actual number of zeros, also of interest is their height up the critical line, and the accuracy (number of decimal places) in their value.
- VIII. There is a formula for the number  $N(T)$  of zeroes up to a given height  $T$ : namely, it is approximately  $(T/2\pi) \log (T/2\pi) - T/2\pi$ .

6 - Zeta ( $s$ ) =  $\sum_{n=1}^{\infty} 1/n^s$  to the power  $s$  (can be 2)  $n/2 =$  an error occurred while defined zeta function. Power of  $n$  that is  $S$  is not following power rule also. 's' have been appearing to you very often, appearing twice in this definition. Taken together is following natural number. It is then defined by analytical continuation to a meromorphic function on the whole  $C$  by a functional equation. Analytical continuation – In mathematics, the Riemann zeta function is a prominent function of great significance in number theory. It's important due to its relation to the distribution of prime number. RH is a conjecture about the distribution of the zeroes of the "Riemann zeta function."

What is zeta in math?

Euler Zeta functions. Zeta function, in number theory, infinite series given by where  $Z$  and  $W$  are complete and the real part of  $z$  is greater than zero.

's' appearing twice in this.

This connection cannot confirm that connection is secure

Technical Details: Problem refer to issues that arise regarding the value of an investment or product due to asymmetric information

I understand the risk regarding the value of an investment or product due to asymmetric information possessed by the buyer and seller between two parties ( $s$ ) and change in behavior. It is carefully maintain in the definition belonging to the radius in conjunction with some other part. Error is just like Kit Kat chocolate covered wafer created by Riemann in year. Know what to do, just click/tap and have a break have a kit Kat in a complex flavor with an alluring sweetness.

A wafer, also called a slice or subtract, is a thin slice of semiconductor material, such as a crystalline silicon, used in electronics for the fabrication of integrated circuits and in photovoltaic's for conventioned, wafer based solar cells.

A thin light crisp biscuit often used to decorate ice-cream.

What is a wafer start? Wafer fabrication is a procedure composed of many repeated sequential processes to produce complete electrical or photonic circuits. Example including production of radio frequency (RF)

amplifier, LEDs optical, computer components and CPU's for computer. The silicon wafers start blank and pure.

To improve fixed E –as not give way, become loose or be lost.

It is certain to remain safe with difficulty.

Provide a remedy – Radio is the technology of using radio waves to carry information such as sound and images by systematically modulating properties of electromagnetic energy waves transmitted through space, such as their amplitude, frequency, phase, or pulse width. The electromagnetic wave is intercepted by a Radio wave tuned receiving antenna. (Mobile Network).

To improve the depths of this goal see Radio Wave Frequency.

S is not a unit and multiplicative identity. It does not represent a single entity, the unit of counting or measurement.

For Example – A line segment of unit length is a line segment of length. 1 . It is also the first of the infinite sequence of natural number followed by 2. In network language means 521 simply means I Love You. Which is the most beautiful line to all.

One song, Many Raags, Many Moods

Lyrics of song

Aaj Jane ki zidd na karo

Tonight, don't insist on leaving.....2

Just like this sit close by me ....2

Tonight, don't insist on leaving ....2

Oh I will be die

I will be lost

Don't say such things...

You can check notes of guitar on above mentioned lyrics. Just like

<----- 0 1 2----->

-->1 0 1 2 3 4 5 6 7 8 9 -->

It can show up as repetitive number.

N meaning the set of non – integer {0, 1, 2,...} and positive integer {0, 1, 2,...} and its definitions is subjective. N can also be variable having an argument k.

Natural logarithm 2.71828...

7 - Proposition Calculus – A proposition is a collection of declarative statements that has either a truth value "true" or a truth value "false". A propositional consists of propositional variables and connectives. We denote the propositional variables by capital letters (A, B, etc). The connectives connect the propositional variables.

Some examples of Propositions are given below –

"Man is Mortal", it returns truth value "TRUE"

"12 + 9 = 3 – 2", it returns truth value "FALSE"

The following is not a Proposition –

"A is less than 2". It is because unless we give a specific value of A, we cannot say whether the statement is true or false.

However, Riemann Hypothesis (assumption) is derived from Riemann zeta function with line (non – trivial zero, critical line).

Therefore, to prove RH as baseless, the Golden Key that references the Riemann Zeta Function to prime numbers is false. A technique of proposition calculus is the realm of Hypothesis.

THIS PAPER IS COUNTER TO SHOW THE CONJECTURE IS FALSE.

## Reference

- [1]. CNO"7", CN507 –A patented formulas based on Riemann Hypothesis. Author – Ekta Singh, Director, NYAYSANGAT FOUNDATION. Published by Amazon.
- [2]. Research Paper – Proof of the Yang Mills Theory Exists on R4 and has a mass gap  $\Delta > 0$ , author – Ekta Singh, Director, NYAYSANGAT FOUNDATION, published in International Journal of Professional Studies, IJPS, 2019, Volume No. 7, Jan – Jun. eISSN – 2455-6270; p-ISSN: 2455-7455.
- [3]. Research Paper – A New Proposed Elementary Proof that 7 is Pi Exact Value, author Ekta Singh, Director – NYAYSANGAT FOUNDATION. IJPS 2019, VOL. No. 5, Jan – Dec. eISSN 2954 – 924X; p-ISSN: 2454-8103
- [4]. GOD is logically exist in words – 2019, published by International Research Publications, New Delhi.
- [5]. I am thankful to EXL organization for the fruitful trainings. Trainings are very helpful to solve the equations.
- [6]. Six Sigma, Lean Sigma, Design Thinking, Block Designing.
- [7]. Crime Stories – Sherlock Holmes
- [8]. Prime Obsession
- [9]. Stalking
- [10]. Tele Serials – CID, Twisted, Maya, Tantra
- [11]. Movie – Investigation, Force -2, RAW
- [12]. Let's Learn (Himanshi Singh) you tube.