

FERMAT'S LAST THEOREM AND PRIMES

By

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PART 1

In February of 1993, there made the front pages of the newspapers and on the TV news, that the solution to Fermat's Last Theorem had been found by Dr. Andrew Wiles. Of course, one cannot believe the news media as they twist things around or go for sensationalism. Reading the article carefully, it only said that a possible solution may be made and the disclosure has some hundreds of pages. What was not in the articles and news was the actual answer. That was like a doctor announcing that there was a medicine for the cure of cancer. All one needed was the right medicine; but that the medicine had not been discovered, was not disclosed.

In December of 1993, there was an article buried in the paper, that an error had been found in the possible solution. Front-page news, but back page retraction. Same old policies by the media. In 1994, Wiles again announced he had corrected his works and solved it once more, but again, no definitive real answer or what were the numbers. Largely ignored by the newspapers and TV.

Fermat's Last Theorem was written on the margin of a book and from that day onward (it was discovered after his death), has occupied thousands of man-hours by the theoretical mathematicians to try to find the solution. Acclamation awaits. The theorem takes the formula as: $X^n + Y^n = Z^n$ where all of the values are whole numbers and $n > 2$. What this says is: What two numbers on left, raised to same powers, added, will result in a whole number extracted from the right, raised to same (or some?) power.

What it says is, likewise, not clarified in full. The other rules of the game are:

1. n must also be less than infinity.
2. X , Y and Z cannot be zero or infinity.

The lowest possible combinations to start is then:

$1^3 + 1^3 = Z^3$	$1 + 1 = 2$ so that the cube root is $1.25 >$ not a whole number
$1^n + 1^n = 2^n$	so that the n th. root becomes yet smaller, approaches 0.
$1^3 + 2^3 = Z^3$	$1 + 8 = 9$ so that the cube root is $2.08 >$
$1^3 + 3^3 = Z^3$	$1 + 27 = 28$ so that cube root is $3.03 >$
$2^3 + 2^3 = Z^3$	$8 + 8 = 16$ so that the cube root is $2.51 >$
$2^3 + 3^3 = Z^3$	$8 + 27 = 35$ so that the cube root is $3.27 >$
$3^3 + 3^3 = Z^3$	$27 + 27 = 54$ so that the cube root is $3.77 >$
$N^3 + N^3 = N^3$	so that the N^3 cube root becomes larger approaching infinity.

What is apparent is that from the first three lowest possible combinations, Fermat's Last Theorem is **CHAOTIC**. Extremely briefly the end result is:

ORDER + 1 event = CHAOS to us humans
ORDER = ORDER to the Universe

Remembering how Chaos originates, that additional 1 event, then one must:
Subtract a 1 event from the left or from the right side to remove the Chaos creating 1 event.

For the others, there is required a, likewise, addition or subtraction (value of number immaterial as it represents that 1 event) in order to force it to work or give the answer.

The only possible conclusion is that there is no answer for the n's which will result in a whole number answer for Z. There is no solution as it is a chaotic equation **due to the rules**, or it creates Chaos in the answer or, vice versa, for the values inserted.

This same situation arises from the following statement by a zoologist: I am going to go find a three-legged biped. Likewise, invent a two-wheeled unicycle or a four-wheeled tricycle, etc. Those are chaotic; and the solution is to remove the one leg or one wheel (event) which makes those nonsensical statements chaotic. The "solution" to Fermat's Last Theorem is then:

1. It has no real solution for any whole numbers.

A. Note that the only combinations starting with X, Y, Z = 1 goes towards zero and the next possible combinations goes towards infinity. There is no midpoint (no number lies between 1 and 2) which would give the solution, that is, neither zero nor infinity.

2. It can be reformulated (cut the Gordian Knot or the leg off) to make it solvable by inserting a -1 on either side.

The main problem was that Fermat's Equation is written in mathematical format and symbols. The average person can easily understand a written language format. The written language format is a **nonsensical statement** easily recognized. Persons or mathematicians do not as easily recognize Fermat's formula, as the equivalent mathematical nonsensical statement.

This is because, from the multiplication Law of Contribution formula derived by myself, $a = \frac{b^2c}{b+c} + \frac{bc^2}{b+c}$ the left side is the *sum* of the digits. That means that it *cannot be a prime number*, which is required for the "solution". Likewise, the right side cannot be a prime number since it is, likewise, a product of multiplication. Therefore, a 1 must be subtracted from either, but not both, of the sides to give the equivalent of a "prime number". None of the resultants on either side are primes. Simply, Chaos reigns on either side.

There seems to be some confusion as to whether Fermat's had any solutions. According to Morris Kline, he says that for n = 3 and 4, that it had been solved, but did not give the solution. Apparently, it has not and never will be. He might be confused when the n's are different numbers that have solutions.

Such original chaotic situations are a result of making up some arbitrary rules that result in it, like paradoxes, because the rule of rules is: You cannot go back and change the original rules. Quick example: $a = bc$; but make the rule, b or c cannot be 1 and a,b,c, must be whole numbers, and try to prove that a can be a prime number or the a is the product of two whole numbers. Makes as much sense as Fermat's Equation does. No one in hiser right mind is going to waste one second trying to solve that one because it is easily recognized for what it is. Nonsense.

I, therefore, committed the unpardonable sin of heresy. I cheated by changing the rules, cut the Gordian Knot (not permitted by the rules, but who was going to argue with Alexander? [who became same, The Great]) and solved the unsolvable.

Late update: November 1997

In the November 1997 issue of *SCIENTIFIC AMERICAN*, was another article by two others who tried to explain how Wiles has solved Fermat's Last Theorem. Of course, it required some new mathematical gimmicks to "prove" it. However, there were not any actual numbers to show that it would give this so-called proof.

Being creative, I have another solution based on new creative mathematical discoveries. If they can create such, then I have the same privilege likewise. I have Mirror Image (Riemann) numbers, which when multiplied, one digit in the answer vanishes (into the fourth dimension?) and gives the solution; a whole number no less.

My numbers have intelligence, in addition, and know which side to disappear from. If numbers are right-handed, the excess digit disappears from the left side and if the numbers are left-handed, it disappears from the right side, i.e., $@^n + \#^n = \n , i.e., $RH - 1 = LH$ or $LH = RH - 1$.

Related to FLT is the Beal Conjecture. This is what if the powers are permitted to be different such that it takes the form of: $A^x + B^y = C^z$. These have solutions so is not the original FLT as the rules have been changed.

PART 2

PRIMES

A prime number is defined as: A prime number is a whole number greater than one, whose only two whole-number factors are one and itself. This definition is really incomplete as it should be Excluding 0 and 1 etc. The 1 is normally understood and is not counted which is really 2 numbers. This is not a good definition. Perhaps a better one would be: A prime is a number that can only be divided by the starting number and itself. There are other number systems, previously discussed, and another one is the hexadecimal or Base 16. This is used in the pocket calculators or other calculators and some have a HEX key on it.

What is called the Binary {number counting} system **is not a** number system. It is an operator/operating (mechanical) system or mnemonic. It has been misnamed. See **PART 6**.

It is not clearly stated that a prime can also exist in other such number systems

When *any number system* is permitted, then there are number systems that have only one prime number and that is the second number in the system. Such systems have fractional values for their numbers in the decimal system and those are "whole numbers" as far as that system is concerned, i.e., units of 1.

The number system .25 .5 .75 1 1.25 1.5 1.75, etc., has only one prime number, the .5 as all the other numbers can be divided by it and the starting number (the 1 equivalent) and itself. Therefore, the second digit may be called the Master Prime or Solo Prime and eliminates any other primes in said series. It can be extended backwards by dividing the starting number in half again so that it is now : .125 .25 .5 .75, etc., and again, the second number is the Solo Prime.

How could such a system exist? Easy. Some alien has their "digits" such that the first one is 1/2 of the second, 1/4 of the third, etc., so that they count: one quarter (of a digit), one-half a digit, three-fourths a digit, one whole digit and then repeat for the rest of their digits (fingers, tentacles, or whatever). That is, only the second number is a prime as all the others can be divided by it or other numbers occurring.

It also can be after the 4 6 8 10, etc., going up by twos or doubling 8 16 32 64, etc. If the starting digit is halved, then one has : .125 .25, etc., and the second digit is the only prime once again.

Another number system is : 1 1.5 2 2.5 3 3.5 4, etc., and it has more than one prime, since fractional answers are not permitted. e.g., $2.5 \div 1.5 = 1.666 >$ which is a fractional answer and does not appear in the series and, likewise, $2.5 \div 2$ is 1.25 and not in the series, again.

The next is the Base 9 system which gives: .11111 > .22222 > ^p.33333 > ^p.44444 > .55555 > ^p.66666 > .77777 > ^p.88888 > 1 1.11111 > 1.22222 > 1.33333 > 1.44444 > 1.55555 > 1.66666 > 1.77777 > 1.88888 > 2, etc. Only those marked with the “p” are primes, and none after the 1 are primes. Therefore, it has only 4 primes, not counting the starting digit. However, what about the 1?

Obviously, any number in this series can be divided by it; but it can be by the others, so is not a prime. Therefore, based on the better rule, *this series has no primes*. Based on the original rule, it has primes.

The binary number system **itself** has no primes. Steven Erickson of Bellaire, TX pointed this out to me. It is only when the binary system is used to represent other number systems do “primes” exist in it.

There is also the peculiarity of no way to “calculate” π in the binary system. This is because there is no way to directly assign just 0’s and 1’s to the circumference and diameter.

Therefore, the rule must be changed once again to: Excluding 0, a prime number is a number that can only be divided by the starting number or 1 and itself.

Until someone comes up with other series that violates this new rule, then this new rule should stand for the definition of a prime number.

This rule then covers *all primes* in any universal number system.

This brings up the possibility of a number system whose first number is irrational and the remainder multiples of this first number. Such could be π or $\log e$ or $\sqrt{2}$. The prime rule would be applicable. Keep in mind what a rational number is in Base 10 or it has an ending digit. In this number system a number having an ending digit is irrational! This is from normal definitions in mathematics. Simply what is irrational in Base 10 is reversed in this number system and is rational and vice versa.

For the equilateral triangle having two sides of 1 using the Pythagorean rule, the hypotenuse was $\sqrt{2}$. So what happens when the $\sqrt{2}$ is the Base System? The hypotenuse is irrational or 2 exactly as for the Base 10 system’s irrational answer.

This simple concept may not be readily apparent. In order to find the sine of an angle, some dimensionless number is assigned to the particular segments or lengths. Let’s take the triangle whose angles are 30-60-90 degrees. The square (4) of the hypotenuse (2) is the sum of the squares of the other two sides. Right? That is what you were taught and even “proved” if you had algebra and trigonometry. Wrong.

Those dimensionless numbers assigned to the sides are *the numbers of segments of a specific length composing those sides*. Those segments can then be fractions or multiples of said numbers in the same **ratio**. This is obviously cutting the original segments into halves which is half of their original length, or doubling the original segments. You can generate another triangle by simply drawing within a circle two diagonals perpendicular to one another. Now you can draw the chord that connects the intersection with the circle or you have four triangles whose angles are 45-45-90 or whose sides are 1-1 and square root of 2 for the hypotenuse.

There is no way to prove in both of the listed cases the length of those sides without physically measuring same nor to derive same from the sines, etc., because to derive those sines, you must, again, measure the lengths first and you cannot do that because No. You cannot eyeball it nor use your dividers to step off the measurements because you are physically measuring it then. How are you going to measure and prove, with those dividers alone, the hypotenuse of the 45-45-90 degree triangle?

The REAL distance (ratios that are dimensionless) for that 3-4-5 triangle are actually 1-1.33333-1.66666 (in fractional format; 3/3, 4/3, and 5/3). It works perfectly in the Pythagorean Rule. You cannot measure those other two sides in the first place. So, each side is *physically* divided into those sub-parts to give the LENGTHS of 3-4-5. See Note 1. Simply, the mathematicians CHEAT and ignore reality.

However, two sides are irrational numbers. What is it in Base 81? When you go to Base 81, the sides are no longer irrational and have the values of 81-108-135! All sides including the hypotenuse **are rational!!!!** Under the true (optimum) ratio it is irrational

From the author's work on Chaos as briefly covered in the opening, it should be noted that $n + 1$ or $n - 1$ will result in a prime but not necessarily for every n so inserted. Keep in mind that these are just one event as the symbols are designators and removing that event will restore it to Orderly.

EXPLANATION: It is possible to define random and the result, randomness by means of a simple equation: Symmetry + 1 Event = Non-symmetrical. The Event is the "random" and symmetry becomes non-symmetrical (randomness). Therefore, the *randomness created* is nothing more than Chaos or given another word to add confusion for the identical result.

I am going to show this using numbers, though some readers will probably disagree with the illustrations. The numbers 123454321 are random due to the 5. 1234554321 is symmetrical. 11111 is random due to the 1 in the middle. Remove the Chaos by deleting that one or adding another giving 1111 or 111111. In any string of even quantities of numbers of 1's, adding one 0 **anywhere** will result in randomness. For odd numbers, replacing the middle 1 with 0 did **not change** anything. I DID NOT say anything about adding two or more 0's (or symbols) as the results become obvious minutiae.

It takes only one random event to create randomness. Adding more random events only causes what could be termed "complexity" but it does not cause any further randomness. In case the readers do not comprehend this, shooting a person dead with one slug will not increase his deadness by pumping more slugs into his corpse.

However, for the purists, what determines complexity or adding in more events can be illustrated as follows. For a volume of gas the Order is preordained. If you put a hot filament in this volume it does not result in complexity as the Order is still preordained. Mixing up a batch of Chocolate Chip Cookies and then adding in ONE chocolate chip creates Chaos or randomness. When more chips are added the complexity becomes more complex in the technical sense only OR how many of these events must be found and removed to restore it back to Order.

Again for those who wish to play the Devil's Advocate, replacing the numbers I used with an illustration (picture with a boundary) will result in the identical creation of randomness or what was symmetrical becomes non-symmetrical. However, for pictures, using a single or double Mirror Image will permit it to be determined if a picture is symmetrical or non-symmetrical. Minutiae technical details (mechanical or even mathematical) skipped.

Why this explanation was inserted here follows in **PART 3**.

PART 3

Not understanding exactly what a prime is resulted in Christian Goldbach (1690-1764) (German) on June 7, 1742 in a letter to L. Euhler set forth a conjecture.

It has been interpreted into English as: Every even integer n greater than two is the sum of two primes. Then, the mathematicians set out to “prove” it or created a “problem”. These attempts (and later extensions of the original) resulted in the offer of a million dollar reward in 2002 for any firm proof etc. The money can’t be collected. Goldbach’s Conjecture is “smoke and mirrors” or cannot be proved as it is SELF-EVIDENT, hence, stretching a point, a selective axiom. There is an axiom that says: One number follows another so is/are the sum of two other numbers that preceded it. It is assumed that 0 cannot be the start as no “numbers” preceded it.

For brevity, 0 will be *stipulated* to be an even number. Therefore it is SELF-EVIDENT from this axiom that any numbers below a larger number can be composed of two (or more understood) parts or the minimum solution. What are the numbers? They are named, odd, even, and the odd can be a prime (number understood). From the morphological process the only possibilities are then for any EVEN number; having at least one of the following possibilities.

Two even numbers.

Two odd numbers.

One even and one prime with 2 as the sole prime.

However, humans being human (and violating Occam’s Razor), will want to make those primes “special” by minutiae specifics that then result in:

Two even numbers.

One even and one prime with 2 as the sole prime.

Two odd numbers neither a prime.

One odd number and one prime.

Two prime numbers.

And therein lies the tale.

There are still only 5 possible combinations that are SELF-EVIDENT (*res gestae*, *prima facie* or whatever) and hence, from the original axiom are themselves AXIOMS so can never be proved to start with.

It was ONLY the last one that Goldbach made into a conjecture. What happened to all the other “conjectures” for the FIRST FOUR? Take the first one. Who is going to try to PROVE that $2 + 2 = 4$ that is what it says? No one in their right mind.

Nor will a program be run on any computer that says every even number found to date was composed of two even numbers OR any and every two odd numbers added resulted in an even number ad nauseam.

Simply, Goldbach’s Conjecture cannot be proved and was thereby made into a “theorem”. *Reductio ad absurdum*: Why not carry this on to its absurd end with the following axioms:

A prime cannot be found by multiplication.

Excluding 2, all primes’ last digit can be 1, 3, 7, and 9.

Excluding the prime of 5, no other prime’s last digit can be a 5 and as far as that goes, 2, 4, 6, and 8 either.

Two primes added cannot result in a prime.

Division using primes cannot find a prime.

Etc. etc. etc.

The axiom I quoted is incomplete and requires a corollary about larger numbers cannot create small numbers etc. I think (in my reductionist way) that the axiom would be better if as follows:

For any numerical counting system, the orderly sequence of numbers cannot have a larger (value) number preceding a lower (value) number. This takes care of the starting 0 and the self-evident axioms that will arise from it AUTOMATICALLY.

PART 4

I (July 2002) read a book that was supposed to be a new theory that received a lot of publicity. Unfortunately, there was nothing new in it. The author had literally pages and pages on trying to define, in mathematical terms (by his own rules) how to prove “randomness” or the word random. This typical approach results in bunches of words that says nothing more than a few simple non-scientific or technical words would suffice to do. Nothing new here as I have already covered this before.

The mathematician Kurt Gödel (1906-1978) proposed a theorem that struck awe into his fellow mathematicians. Again, could it be proved? Skipping all the fancy mathematical terminology he used, all he essentially said was: No mathematical theorem can be proved as it requires for A to be proved, you must add more rules to make B, to make C etc. so A cannot be proved under whatever rules that were used at the start.

What he said in so many words was nothing more than that which was thousands of years old, just as Riemann put such a philosophical thought into mathematics. See Note 2. So what was so great about this? NOTHING. The mathematicians simply did not THINK what the words he used actually meant when REDUCED to its minimum concept.

Nothing can be proved.

1. OVERKILL:

It is impossible to cross over a river if you (or an object understood) are already on the other side. Therefore, at least in theory, effect can precede cause.

Now I know this is going to result in semantics or the meaning of words and how used. However, the bank or a river preexists and there is that midpoint that is between either the bank (object or something on the bank) or the river. It is possible to go to the other side without crossing the river by going beyond its lower termination or around its source. However, that then results in what is the meaning of “cause”. ONCE you are on the bank, that prior cause ceases, so you are already on the other side to **start with**.

Simply, if another person was on the opposite bank, then either could say, “You are on the other side, not me.”

Disentangled: It is possible to travel to the opposite (opposing) bank of a river without crossing over the river itself. Other is relative, opposite is precise.

I do not know if I have created a new word and its usage. What I am trying to convey is the words chosen that results in some paradox, absurdity, nonsensical, imprecise, or whatever can be restored to make sense by changing the word(s) used.

PART 5

In late September and early October 2002, I read the book by Morris Kline published in 1980 called MATHEMATICS THE LOSS OF CERTAINTY. This was an overview of how mathematics started and the results where it is today.

This got me to thinking, especially on how axioms and the rules that follow come into being and are not always correct to start with. Simply, many problems can be corrected by the right axiom or rule.

There goes back in antiquity and is still present today the philosophic question: Does something exist or not just because we can or cannot see it? The simplest illustration uses a box. So, this will be called the Box Problem. Suppose there is a closed box whose lid can be opened. Now this box is “empty”. Then someone says there is an object in this box, but if you open the lid to see if it is there, it disappears. Or, another says there is an object there that is invisible so you can’t see it to start with so opening the lid proves nothing. Then I have this tidbit. I have a box that has some visible roach do-do in it. I claim I have an invisible roach that lives in the box. You can’t see the roach when I open it, but the proof it must be there, is its shit is there to see. This eventually resulted in Schrödinger’s famous cat dead or alive in box paradox.

But that is not all. When mathematics is involved there arises another word that is imaginary and whether something is real or imaginary. So now let’s assume that box has an imaginary something in it that is, naturally, invisible. This results in three possibilities. Something real, something real but invisible, and something imaginary that is invisible. So what rule or axiom can be proposed that will solve this conflict?

The answer is the first rule set that only vision is the permissible means of detection. Now humans can hear, smell, feel, touch, and taste for presence of reality. Those who set up this eye only rule were making up a rule that was not anywhere near reality to start with. For brevity this seeing problem cannot be set forth here as it is many pages in length. (Remember that for A you got to prove B to prove C?) Therefore, their rule is absurd and not reality to start with.

But there is yet another problem. We have Riemann’s Postulate to contend with and that old saying from 3000 or more years ago: What is real is imaginary and what is imaginary is real. Simply, what is in the box can “disappear” whether it be real or imaginary. Simply, something in the box when the lid is opened goes in or to the opposite side. Hence, something real (even if invisible like air) becomes imaginary and vice versa. And that concept then solves the Box Problem.

Only something that is real can exist when the lid is opened. The key word is that ONLY and eliminates all the other corollaries that would then be required.

Let’s see how this works. There is a positron in the box to start with. When the lid is opened it is replaced with the electron that is real and exists and is invisible, but can be detected and shown to be there by a human observation using the appropriate senses. Then close the lid and open again and there is the positron likewise.

There is only space in the box. When the lid is opened, something not space replaces it, say some Mass. That too can be detected. Then if Mass is in the box and lid opened only space is there and cannot be detected so does not exist as far as human senses are concerned.

Stretching a point using mathematics. There is in mathematics something called the square root of minus 1 that is imaginary or not depending on what mathematician you are talking to. Anyway, when that is put in the box and the lid opened, the real square root of 1 replaces it and so it exists. No human, just common, senses being used here.

Now to the final reductio ad absurdum. Put something that is imaginary, impossible, and invisible in the box. Such could be a three-legged biped. Now open the lid. What is there? Riemann’s Mirror Image or the virtual three-legged biped that is still imaginary, impossible, and invisible.

It could not become real as it had no existence to start with. Only that which is real can have a real opposite. Anything imaginary has only its own imaginary opposite.

And that now proves the rule on the Box Problem that is now no longer a problem. As to Schrödinger's famous cat dead or alive problem, that was a result of semantics and misdirection in the first place. Stretching a point IF this rule did apply, then the cat was neither one OR the other but both. It was dead when the lid first lifted and after closing and re-lifting, it was alive.

Now to a more practical illustration on whether light-mass was waves or mass, then put one in the box, say light as "waves" and open the lid. The light is now in its wave form and experiments using the wave form show it is a mass. Close the lid and reopen. Now it is in its mass form and experiments will show it as a mass. Put both in this real world and you get the identical results. **No one experiment can show BOTH at the same time.**

And that is that!

PART 6

The true Binary Number System impossible. It only has the digits 0 and 1. Addition, subtraction, and multiplication can be done, BUT, division using that 0 is impossible or simply undefined under current theory.

The Binary Number System is misnamed. It is NOT a number system, but the Binary Symbol System for number manipulations.

The Binary Symbol System (though it could also be Operating or Operation) only uses characters or symbols as the OPERATOR (to be used as). They designate *two states*. One signifies to do nothing, the second to do something, i.e., do not – do, no go - go, close - open, stop – start etc. In theory, it could just as easily have been up – down, or left (<) – right (>). Any two will do. As a matter of **CONVENIENCE** the symbols 1 and 0 are used. They are NOT the numbers 1 and 0. The fact most do not understand this causes ALL of the semantic problems. That is because of the ignorance of those writing about the system. This same "ignorance" (that does NOT necessarily mean stupid) wrecks havoc in physics likewise.

I do not think that I can really explain what the binary numbering system is anymore than I already have. The system ITSELF cannot be used, as my illustration, to find pi. The symbols used are used to represent numbers (in Base 10 normally) and it is those that can then be manipulated to give the strings of symbols in the binary that are normally converted back to the Base 10 numbers. Yes, I know many people can "read" out those "digits" as if they are Base 10 digits (16 or whatever being used), but the symbols themselves are just a series of 0's and 1's and cannot be "read out" IN binary. 0 is just a symbol, no specific name that I know of. 1 ditto, so that 01 or 10 (or whatever) have no specific names attached. Rarely, one sees just the straight line l or I for the 1.

Most modern computer systems (including the IBM PC) operate using binary logic. The computer represents values using two voltage levels (usually 0V for logic 0 and either +3.3 V or +5V for logic 1). With two levels we can represent exactly two different values. These could be any two different values, but by convention we use the values zero and one. These two values, coincidentally, correspond to the two digits used by the Binary Symbol System.

A binary digit (a "bit") may be represented by any two states, and any two states may be used to represent a bit. This means that the traditional zero/one may be equivalent to on/off, valid/invalid, magnetized and not magnetized, true/false, and many others.

The binary "number" system was first used by different tribes, but currently, it is mainly used in combination with the Base 8 system in computers. Since there are eight bits, which are binary digits, in a byte when dealing with information being processed on computers, the Base 8 system is also utilized. This means that a 32-bit computer works with 32 digits of binary instructions at a time, which is equal four bytes. In addition, many computers use the Base 16 system, which is known as hexadecimal. This makes computer programs more concise and easier to understand.

If you really think about it, binary is a very simple system. As well as one and zero, it can be thought of as on or off, true or false, yes or no, etc. In computers, binary is used when sending electrical pulses through a motherboard to give instructions and encode data. For example, different paths where electricity can flow have switches or magnetic dots that are either on or off. One designates "on" or "true," while zero represents "off" or "false." Some of the early computers used binary as well. They used binary punch cards that had teeth-like structures on the top.

NOTE:

1: Strangely enough this 3-4-5 triangle has never been specifically named. I have written one mathematician that belongs to a worldwide for teaching mathematics group that meets all over the world to present it to be named. I suggested, and he agreed, but no action taken. I suggested that it be called the Pythagorean Triangle.

2: Georg Friedrich Bernhard Riemann (1826-1866) [German]

Riemann's postulate:

In the ultimate case, space - time constitutes some sort of perfect mirror - one that reflects all respects of every fundamental particle and also reverses each one in so doing. Every particle has a "reflection" in this perfect space - time mirror, and every property of the particle is faithfully contained in a reverse sense in its image. In this case, it makes little difference which is called object and which is called image. They are exactly "alike", but they are reversed in all senses with respect to one another.

I am adding: They may also undergo some degree of *rotation*.

Currently what Riemann wrote as space – time meaning **of** space and time, was bastardized later to space-time (gaps removed) probably by Minkowski and plagiarized by Einstein, creating a nonexistent entity. Then sometimes in the past year or so (2003-4), it has been further bastardized to spacetime that is totally meaningless.

And so has the word virtual been totally misused. That virtual is the optical image seen in a mirror as per Riemann, hence is IMAGINARY.

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