

***"Computer Validation of New Mathematical Theories & Applications  
for the Orbits of Primes"***

***"The 10,000,000 Digits Approach"***  
***By Eng. Hatem Albishtawi***

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***PREFACE***

Number is the language of science and the skeleton for mathematics, engineering, physical studies, statistics, economics, astronomy and financial affairs.

Number theory is considered the queen of mathematics. It's a global wealth. Since the very early days of human beings there have been constant attempts throughout the world to discover new arithmetic relations between numbers, and they all have contributed in building that human scientific pyramid of number theory.

Yet, in spite of the tremendous development in computer industry and computer technology, this science is still relatively unexplored. It hasn't grown in parallel with other sciences, and it is still trying to find solutions for the most important unsolved problems of growing complexity and size that confront modern mathematics, and arising from more and more sophisticated systems.

I started my research on numbers in the late 1950s through a world full of secrets, miracles, equations, theorems and variables. It is an ocean of data and a universe of infinity. I read a great deal about numbers and wrote hundreds of pages about new methods for the product of numbers.

But in the late 1960's, I started another math journey in the world of primes, zero theory and division theory. My main interest was how to process multi thousand digit numbers using innovative ways of calculations and seeking to find the 10,000,000 digit prime approach.

This colossal undertaking seems difficult to execute without creating a lot of programs that I used to upgrade from time to time, which finally generated extraordinary results and made a great cut in mathematical operations.

Today, having finished my first step in this field of interest I'm issuing this book entitled *computer validation of new mathematical theories and application for the orbits of primes.... The 10,000,000 digits approach which* contains 11 chapters distributed as follows:

- Chapter 1** : Residue set initiation and two corrections to Euler Criterion
- Chapter 2** : Prime orbit lengths, super giant categories of primes
- Chapter 3** : The role of power (10), it's factorials & the cyclic reciprocal of powers
- Chapter 4 & 5** : Primes, mathematical weight, mathematical Galaxy and giant Galaxy
- Chapter 6** : The cycling and the processing of multi-hundred digit numbers
- Chapter 7** : Numbers composed of multi thousand digit of zeroes and the cyclic of division theory
- Chapter 8** : The ascending and descending integers and primes series
- Chapter 9** : The periodic of multiples of primes and the cyclic of powers of primes
- Chapter 10** : New ways to discover primes and the security of the transfer of data
- Chapter 11** : The 51 Hatem theories, equations and tables

This book has helped to pave the way for the present development of new basic principles, methods and results, and a clear perception of what will prepare the researchers for the present situation and the future by a modern approach to the previous areas of interest and the ideas that are of the basic changes.

I, beyond any doubt, feel that these researches are new, empirical and constitute big block in the comprehensive studies for primes: philosophy and application.

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## ***THE NEW THEORY***

“The orbits of prime theory, the DNA of primes, the GENESIS of primes, the planets of primes, the math solar, the math Galaxy, the cloning of numbers, the math carpet, the math fuel, the reciprocals of numbers, the circulation of numbers and the zero circles" are 40 years of comprehensive and profound math research dealing with number theory, primes configuration, theories and applications.

These new math concepts released new facts about primes and non primes and added 51 theories about their special properties and their applications through more than 7300 pages, more than 2 million new elements of data, and numerous sophisticated programs.

The significance of such research is due to the following points:

1. The great evolution in math thought.
2. The importance of primes in the realm of number theory as they are the generators for new numbers.
3. The great interest that math research centers all over the world take in discovering a new prime which usually happens once every few years, and allocating hundreds of thousand of dollars for any new discovery.

Yet, to determine our major objective isn't to discover that numbers are prime only, but how to make practical usage of these phenomena, how to study internal cells of the primes and to utilize their unique properties to generate new math relations, new theories and construct new blocks in the science of number.

“Orbits of prime” is a new comprehensive theory dealing with primes configuration, DNA of primes, cyclic rotation of the recurrent decimal of primes, and their applications.

The primes in the new theory resemble suns revolving in their orbits, with their orbiting planets. These planets are identical and have the same orbit length and properties, whereas other numbers resemble **solar system or mathematical Galaxy with their unique properties.**

The product of two primes or their marriage generates new math features: inborn and new ones descended from their math fathers and their fore fathers in a similar way to Mandel law for heritage.

On the other hand, the mathematical rotation of the other numbers resemble suns in different solar systems or mathematical Galaxy composed of numerous solar systems accompanied by millions of different planets, controlled by special laws.

The creation of a mathematical Galaxy is due to the product or the (marriage) of many primes, where each prime (sun) has its tension and attraction upon other primes. On the other hand each mathematical Galaxy is unique in its properties, planets, and orbits.

A number might be circulated in a special solar system and it might be transferred also to another solar system when equipped with the math fuel which is a special number of zeroes that help him to rotate in the new orbits.

The digits of large numbers seem silent like the surface of sea waves, where as they move in a cyclic harmonic motion depending on the primes values and their recurrent reciprocal. Their free behavior resembles also the behavior of an electron in its orbit, this type of digit free rotation is called math electron.

Zero theory and division theory that deal with multi thousand digit zeroes constitute new innovative concepts about the cyclic rotation of numbers and compose one of the major topics of accomplishment.

*Due to the development in computer technology, I have been able to make two major corrections to two formulas related to theory of numbers produced by the famous 17<sup>th</sup> century mathematical scientists EULER.*

*Another major result that my research has achieved is the discovery that there are new unconventional formulas to detect whether certain numbers are primes or not, which is a great gift to mathematicians.*

*One of the major items that were solved is generating the periodic of primes up to 10 million digits and the possibility to handle new tables with 2 millions mathematical elements of data and the processing of*

*multi thousand digit number by rearranging its digits in trillions of mathematical shapes and keeping their recurrence valid.*

Mean while, a lot of equations that deal with the two major elements of the binary system “0” and “1” were extracted.

These equations could process multi hundred thousand of digits, they gave also unexpected results and opened a new era in this field of number theory.

*The research covered more than 10,000,000 number and 666845 primes.*

*Fifty one new arithmetic theories were derived, two of which were corrections to the formulae explored by the famous 17<sup>th</sup> century scientist, EULER*

*The generated reports exceeded 7000 pages after the execution of more than 2,000,000,000,000 mathematical equations whereas about 9,000,000 new types of prime planets were discovered.*

*The research generated 2,000,000 innovative mathematical elements of information dealing with the DNA of primes. These reference tables took more than 150,000,000 sec-cpu time, and these tables are considered in the new applications and are important as LOG, SINE, COSINE tables.*

*Some output results are composed of more than 10,000,000 digit which would require more than 10 km of writing based on the fact that if one digit needs 1 mm. At the same time some produced block of numbers would require million times the circumference of the Milky Way to be written.*

*The new discovered properties contributes effectively in simplifying arithmetical operations and provide solutions to complicated formulas that can't be solved by means of classic ways of formulas and making their mathematical processing easier.*

*I am also certain that it will help mathematicians, mathematical centers and computer science professionals to benefit from the new generated sources of numeric data and translate the new theories and equations into practical applications.*

## ***SHORT ABSTRACT***

***What do you know about the new math terminology concepts used in this research ...***

- The math Galaxy?
- The math solar?
- The orbits of primes?
- The reciprocal of primes?
- The DNA of primes?
- The genesis of numbers?
- The math cloning of numbers?
- The math electron?
- The math fuel?
- The math carpet?
- The circulation of numbers?

### ***I. The mathematical Galaxy:***

#### **Case 1:**

The mathematical Galaxy 42,571,243 is composed of:

- 5 solar systems
- 31 category of planets
- different 43,354 planets .

#### **Case 2:**

The math Galaxy 14,607,551,568,144,913,590,887 is composed of:

- 10 solar systems.
- 4095 categories of planets
- 236,272,775,510,181,975 different types of planets i.e about 2000,000 times the number of planets in the Milky Way
- 151,904,471,040,000,000 planets in the outer orbit of the Galaxy, the length of each orbit of these planets is composed of 63,000 digits.
- 151,904,471,040,000,000 different primes residue sets.

### ***II. The recurrent reciprocal of primes:***

#### **Case 1:**

The recurrent reciprocal number for  $10,008,821^5$   
 $= 1/10,008,821^5$

$$= 1/100,441,828,787,075,145,190,905,363,849,648,101$$

is composed of  
100,441,818,751,744,431,705,756,094,929,226,420 digits.

**Case 2:**

The recurrent reciprocal number for the multiplication of 11 different primes 1/G, is composed of  $3.25 \times 10^{61}$  digits:

$$G = 1,077,943 * 1,074,851 * 1,077,697 * 1,076,069 * 966,389 * 998,897 * 9,993,383 * 9,995,549 * 10,008,541 * 978,463 * 1,073,953$$

(1/G) is composed of  
(32,487,014,477,204,462,755,017,395,783,477,779,390,220,554,261,072,166,518,729,200) digits.

This number is big enough that it requires more than  $10^{55}$  km of space for writing the 1<sup>st</sup> reciprocal 1/G (if each single digit needs 1 mm space), and needs more than  $2 * 10^{47}$  (200 trillion trillion trillion million) the distance between the earth and the sun which equals 150,000,000 km.

And needs also more than  $3 * 10^{40}$  (30,000 trillion trillion trillion) the distance that light needs to cross the Galaxy Way which equals 100,000 light years.

And more than  $3 * 10^{42}$  (million trillion trillion trillion ) light year that light cuts at the velocity of 300,000 km /sec.

**III. *The factorization of the exponential power  $10^n - 1$  and the generation of primes.***

**Case 1:**

For  $n = 60$ , the prime factorial of  $(10^{60} - 1)$   
 $= 7 * 11 * 13 * 31 * 37 * 41 * 61 * 101 * 181 * 241 * 271 * 2161 * 3541 * 9091 * 9901 * 27961 * 52579 * 2,906,161 * 4,188,901 * 3^2$

The value for the exponential power n discovered is more than 10,028,000.



each one of these probabilities still divides the original primes

**Case 1:**

The number "88,900,000,000,000,001,215,433,901,054,338" is composed of 32 digits and divides the prime 5882353.

By using the circulation process for the 32 digits, then we can have 32 new probabilities, which always divide the prime 5882353 as follows:

1. 88,900,000,000,000,001,215,433,901,054,338  
= 5,882,353 \* 15,112,999,848,870,001,717,923,746
2. 88,890,000,000,000,000,121,543,390,105,433  
= 5,882,353 \* 15,111,299,848,887,001,531,792,361
3. 38,889,000,000,000,000,012,154,339,010,543  
= 5,882,353 \* 6,611,129,933,888,700,663,179,231
4. 33,888,900,000,000,000,001,215,433,901,054  
= 5,882,353 \* 5,761,112,942,388,870,576,317,918
- .
- .
- .
- .
- 32

We continue in the same way to get the rest of the (32) probabilities, which equals the number of the digits of the original number.

***XI. The circulation of the secret number.***

**Case1:**

The following number composed of (72) digits 725,652,128,943,478,737,274,347,871,056,521,262,862,826,064,471,739,368,137,173,935,528,260,631 divides the following 10 primes:

$$7 * 11 * 13 * 19 * 37 * 101 * 3,169 * 98,641 * 52,579 * 333,6667$$

It could be arranged again in 72 different cyclic probabilities and divides the previous primes as follows:

1. 652,128,943,478,737,274,347,871,056,521,262,862,826,064,471,739,368,137,173,935,528,260,631,725
2. 128,943,478,737,274,347,871,056,521,262,862,826,064,471,739,368,137,173,935,528,260,631,725,625
3. 943,478,737,274,347,871,056,521,262,862,826,064,471,739,368,137,173,935,528,260,631,725,652,128
4. 737,274,347,871,056,521,262,862,826,064,471,739,368,137,173,935,528,260,631,725,652,128,943,478

But if it is required that this number divides only selected number of these primes, then great numbers of these probabilities for new configurations could be gotten as follows:

- \* 186,134,520,519,971,831,808,000 probabilities to divide the prime 37
- \* 2,874,009,600 probabilities to divide  $7 * 11 * 13$
- \* 2,903,040 probabilities to divide  $11 * 73 * 101 * 137$
- \* 362,880 probabilities to divide  $3 * 37 * 333,667$
- \* 432 probabilities to divide  $7 * 11 * 13 * 19 * 52,579 * 333,667$
- \* 8,640 probabilities to divide  $7 * 11 * 13 * 37$
- \* 144 probabilities to divide  $7 * 11 * 13 * 37 * 73 * 101 * 137$

**Case 2:**

The following two numbers are examples of the 186,134,520,519,971,831,808,000 probabilities that divides only the prime 37:

999,777,777,777,778,888,888,666,666,666,555,555,444,444,333,333,333,222,222,222,221,111,111,000

999,888,888,777,777,777,666,666,666,555,555,444,444,333,333,222,222,222,111,111,000,221,778

The following Figure 1 shows the cyclic period for the number 725,652,128,943,478,737,274,347,871,056,521,262,862,826,064,471,739,368,137,173,935,528,260,631.

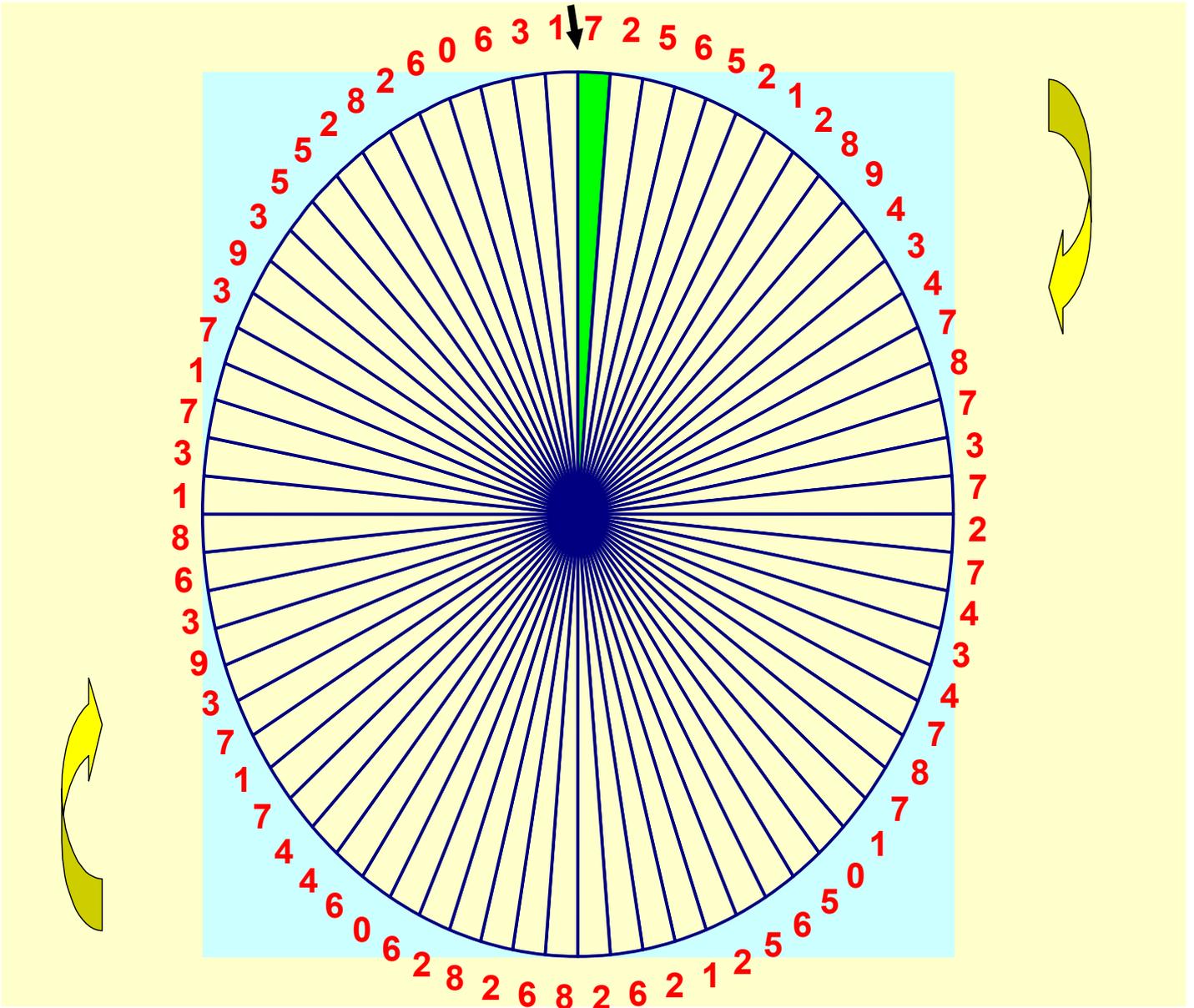


Fig. 1 - The cyclic period for the secret number  
 "725,652,128,943,478,737,274,347,871,056,521,262,862,826,064,  
 471,739,368,137,173,935,528,260,631"

The number of probabilities = 72, where the number might be read from  
 any point in the circle in a clock wise direction

## VII. *The Math Cloning of Numbers:*

The math cloning is the property of generating of new numbers that are identical to the original number in its number of digits and has the same math properties for the divisibility of primes and the circulation process.

### Case 1:

For the secret number  
725,652,128,943,478,737,274,347,871,056,521,262,862,826,064,4  
71,739,368,137,173,935,528,260,631

The following 3 numbers are samples of the infinite number of different probabilities of new math cloning numbers that have the same above properties for dividing the 10 primes and have the same previous circulation probabilities and are composed of 72 digits:

1. 274,347,871,056,521,262,725,652,128,943  
,478,737,137,173,935,528,260,631,862,826,064,47  
1,731,368

2. 163,136,759,945,410,151,614,541,017,832  
,367,626,026,062,824,417,149,520,751,714,953,36  
0,620,257

3.  
947,874,351,165,700,959,496,570,093,278,743,48  
5,085,048,  
286,693,961,590,359,296,157,750,482,853

## IIX. *The genesis power divides primes:*

The following are samples of the produced 10 power series that divide special primes:

The number  $10^{98,734} - 1$  divides the prime  
3,258,323  
The number  $10^{9,975} - 1$  divides the prime  
9,797,551  
The number  $10^{199,837} - 1$  divides the prime  
3,597,067

The number  $10^{200,000}$  – 1 divides the prime  
 2,800,001  
 The number  $10^{289,987}$  – 1 divides the prime  
 9,859,559  
 The number  $10^{111,115}$  – 1 divides the prime  
 6,666,613  
 The number  $10^{333,336}$  – 1 divides the prime  
 5,400,019  
 The number  $10^{300,000}$  – 1 divides the prime  
 7,983,121  
 The number  $10^{444,447}$  – 1 divides the prime  
 1,199,999  
 The number  $10^{400,002}$  – 1 divides the prime  
 4,666,663  
 The number  $10^{500,002}$  – 1 divides the prime  
 5,333,329  
 The number  $10^{555,551}$  – 1 divides the prime  
 7,333,591  
 The number  $10^{600,002}$  – 1 divides the prime  
 3,333,337  
 The number  $10^{498,945}$  – 1 divides the prime  
 3,600,001  
 The number  $10^{599,999}$  – 1 divides the prime  
 4,444,471  
 The number  $10^{666,666}$  – 1 divides the prime  
 1,200,007  
 The number  $10^{888,888}$  – 1 divides the prime  
 1,500,007  
 The number  $10^{789,094}$  – 1 divides the prime  
 9,469,129  
 The number  $10^{699,999}$  – 1 divides the prime  
 9,799,987  
 The number  $10^{899,999}$  – 1 divides the prime  
 1,799,999  
 The number  $10^{900,003}$  – 1 divides the prime  
 3,600,013  
 The number  $10^{999,979}$  – 1 divides the prime  
 3,999,917  
 The number  $10^{799,992}$  – 1 divides the prime  
 7,999,921  
 The number  $10^{1,111,121}$  – 1 divides the prime  
 2,222,243

The number  $10^{1,200,000}$  – 1 divides the prime  
 2,400,001  
 The number  $10^{1,222,220}$  – 1 divides the prime  
 2,444,441  
 The number  $10^{1,333,330}$  – 1 divides the prime  
 1,333,331  
 The number  $10^{499,991}$  – 1 divides the prime  
 3,999,929  
 The number  $10^{2,150,001}$  – 1 divides the prime  
 4,300,003  
 The number  $10^{2,249,984}$  – 1 divides the prime  
 4,499,969  
 The number  $10^{2,333,333}$  – 1 divides the prime  
 4,666,667  
 The number  $10^{2,399,999}$  – 1 divides the prime  
 4,799,999  
 The number  $10^{916,667}$  – 1 divides the prime  
 4,999,999  
 The number  $10^{5,555,566}$  – 1 divides the prime  
 4,998,989  
 The number  $10^{933,333}$  – 1 divides the prime  
 4,999,889  
 The number  $10^{5,700,006}$  – 1 divides the prime  
 5,199,959  
 The number  $10^{1,899,899}$  – 1 divides the prime  
 5,300,003  
 The number  $10^{2,111,112}$  – 1 divides the prime  
 5,299,933  
 The number  $10^{2,300,001}$  – 1 divides the prime  
 4,600,003  
 The number  $10^{2,399,999}$  – 1 divides the prime  
 4,799,999  
 The number  $10^{2,499,999}$  – 1 divides the prime  
 4,999,999  
 The number  $10^{2,555,556}$  – 1 divides the prime  
 7,555,55  
 The number  $10^{1,888,833}$  – 1 divides the primes  
 7,555,333 \*

3,777,667.

The number  $10^{1,000,001}$  – 1 divides the primes  
 2,000,003 \*

8,000,009

**IX. *The primes that have the same reciprocal recurrent number of digits.***

The research generated the different formulas that produce the primes that its recurrent reciprocal equals a specified number of digits.

**Case 1:**

The following primes 61, 4188901 & 39526741 are composed of 60 reciprocal recurrent digits:

$$1 / 61 = 016,393,442,622,950,819,672,131,147,540,983,606,557,377,049,180,327,869,852,459$$

$$1 / (4,188,901) = 000,000,238,726,100,234,882,610,021,100,999,999,761,273,899,765,117,389,978,899$$

$$1 / (39,526,741) = 000,000,025,299,328,371,139,932,836,860,999,999,974,700,671,628,860,067,163,139$$

**Case 2:**

The reciprocal of the following multiplication of primes are also composed of 60 digits:

$$1 / (255,522,961), 1 / (2,411,131,201), 1 / (165,573,604,901,641) \& 1 / (10,099,989,899,000,101).$$

**X. *The genesis power series divides primes.***

*The following 10 power series divide the followed primes:*

$(10^{1,200,000} - 10^{600,000} - 2)$	divides	2,400,001
$(10^{888,888} - 10^{444,444} - 2)$	divides	1,500,007
$(10^{2,555,556} - 10^{1,277,778} - 2)$	divides	7,555,559
$(10^{10,026,286} - 10^{5,013,143} - 2)$	divides	10,026,287
$(10^{2,953,180} - 10^{1,476,590} - 2)$	divides	8,859,541
$(10^{1,876,540} - 10^{938,270} - 2)$	divides	5,692,621
$(10^{3,979,880} - 10^{1,989,940} - 2)$	divides	9,995,761
$(10^{1,999,994} - 10^{999,997} - 2)$	divides	9,999,971
$(10^{666,666} - 10^{333,333} - 2)$	divides	1,999,993



$$1 + 4 * 10^{104857652} \text{ divides } 17$$

b. By using Hatem primary circles for fixed n, then a & b are calculated:

**Case 1:**

For constant exponential power ( n = 20 , 273300 , 55601300), and for the prime p = 29, a & b has 28 probabilities of each of the following examples :

$$\begin{array}{lll} 8 + 9 * 10^{20} / 29 & 8 + 9 * 10^{273300} / 29 & 8 + 9 * 10^{55601300} / 29 \\ 6 + 24 * 10^{20} / 29 & 6 + 24 * 10^{273300} / 29 & 6 + 24 * 10^{55601300} / 29 \\ 2 + 8 * 10^{20} / 29 & 2 + 8 * 10^{273300} / 29 & 2 + 8 * 10^{55601300} / 29 \\ 5 + 2 * 10^{20} / 29 & 5 + 2 * 10^{273300} / 29 & 5 + 2 * 10^{55601300} / 29 \end{array}$$

**Case 2:**

For constant exponential power (n = 31 , 3317791 , 564840705) for the prime p = 19 where we can get 18 probabilities for the values of a & b, for examples follows:

$$\begin{array}{lll} 8 + 14 * 10^{31} / 19 & 8 + 14 * 10^{3317791} / 19 & 8 + 14 * 10^{564840705} / 19 \\ 4 + 14 * 10^{31} / 19 & 4 + 14 * 10^{3317791} / 19 & 4 + 14 * 10^{564840705} / 19 \\ 2 + 7 * 10^{31} / 19 & 2 + 7 * 10^{3317791} / 19 & 2 + 7 * 10^{564840705} / 19 \\ 16 + 18 * 10^{31} / 19 & 16 + 18 * 10^{3317791} / 19 & 16 + 18 * 10^{564840705} / 19 \end{array}$$

**Case 3:**

For exponential power  $10^{17}$  n = 17, the values of a & b for the following primes:

$$\begin{array}{ll} 3 + 8 * 10^{17} / 19 & \text{where a \& b have 18 probabilities} \\ 22 + 14 * 10^{17} / 29 & \text{where a \& b have 28 probabilities} \\ 3 + 5 * 10^{17} / 7 & \text{where a \& b have 6 probabilities} \end{array}$$

**Case 4:**

For different values of a & b & n for the prime 10,028,071 we can get more than 10,056,000,000,000 probabilities.

**XII. The genesis power series with the two terminations  $a = b = 1$  in the formula  $a + b * 10^n / p$**

$$\begin{aligned}
 &1 + 10^{49,367} / 3,258,223 \\
 &1 + 10^{839,239} / 3,258,223 \\
 &1 + 10^{6,804,379} / 3,258,223 \\
 &1 + 10^{100,000} / 2,800,001 \\
 &1 + 10^{2,300,000} / 2,800,001 \\
 &1 + 10^{37,900,000} / 2,800,001 \\
 &1 + 10^{333,333} / 1,200,007 \\
 &1 + 10^{999,999} / 1,200,007 \\
 &1 + 10^{23,333,331} / 1,200,007 \\
 &1 + 10^{444,444} / 1,500,007 \\
 &1 + 10^{2,222,220} / 1,500,007 \\
 &1 + 10^{5,777,772} / 1,500,007 \\
 &1 + 10^{200,001} / 4,666,663 \\
 &1 + 10^{3,800,019} / 4,666,663 \\
 &1 + 10^{27,200,136} / 4,666,663 \\
 &1 + 10^{600,000} / 2,400,001 \\
 &1 + 10^{3,000,000} / 2,400,001 \\
 &1 + 10^{22,200,000} / 2,400,001 \\
 &1 + 10^{1,277,778} / 7,555,559 \\
 &1 + 10^{18,166,670} / 7,555,559 \\
 &1 + 10^{182,944,478} / 7,555,559
 \end{aligned}$$

**IIIXV. The  $N^{TH}$  exponential power 10 series that divides primes.**

The following power 10 series divide primes as follows:

1.  $(10^{342,869} + 10^{685,738} + 10^{1,028,607} + 10^{1,371,476} + 10^{1,714,345} + 10^{2,057,214} + 10^{2,400,083} + 10^{2,742,952} + 1) / 6,171,643$
2.  $(10^{160,000} + 10^{320,000} + 10^{480,000} + 10^{640,000} + 10^{800,000} + 10^{960,000} + 1) / 4,480,001$
3.  $(10^{342,857} + 10^{685,714} + 10^{1,028,571} + 10^{1,371,428} + 10^{1,714,285} + 10^{2,057,142} + 1) / 4,799,999$
4.  $(10^{281,248} + 10^{562,496} + 10^{843,744} + 10^{1,124,992} + 10^{1,406,240} + 10^{1,687,488} + 10^{1,968,736} + 1) / 4,499,969$
5.  $(10^{233,333} + 10^{466,666} + 1) / 9,799,987$

6.  $(10^{375,308} + 10^{750,616} + 10^{1,125,924} + 10^{1,501,232} + 1) / 5,692,621$
7.  $(10^{795,976} + 10^{1,591,952} + 10^{2,387,928} + 10^{3,183,904} + 1) / 9,995,761$
8.  $(10^{422,129} + 10^{844,258} + 10^{1,266,387} + 10^{1,688,516} + 10^{2,110,645} + 10^{253,274} + 10^{2,954,903} + 10^{3,377,032} + 1) / 7,598,323$
9.  $(10^{555,555} + 10^{444,444} + 10^{333,333} + 10^{222,222} + 10^{111,111} + 1) / 1,999,999$
10.  $(10^{571,428} + 10^{476,190} + 10^{380,952} + 10^{285,714} + 10^{190,476} + 10^{95,238} + 1) / 1,999,999$
11.  $(10^{592,592} + 10^{518,518} + 10^{444,444} + 10^{370,370} + 10^{296,296} + 10^{222,222} + 10^{148,148} + 10^{74,074} + 1) / 1,999,999$
12.  $(10^{3,988,000} + 10^{2,991,000} + 10^{1,994,000} + 10^{997,000} + 1) / 9,970,001$
13.  $(10^{3,242,000} + 10^{1,621,000} + 1) / 9,7261,001$
14.  $(10^{3,776,000} + 10^{2,832,000} + 10^{1,888,000} + 10^{944,000} + 1) / 7,552,001$
15.  $(10^{160,000} + 10^{120,000} + 10^{80,000} + 10^{40,000} + 1) / 2,800,001$
16.  $(10^{150,000} + 10^{100,000} + 10^{50,000} + 1) / 2,800,001$
17.  $(10^{1,740,000} + 10^{870,000} + 1) / 5,220,001$
18.  $(10^{2,040,000} + 10^{1,700,000} + 10^{1,360,000} + 10^{1,020,000} + 10^{680,000} + 10^{340,000} + 1) / 9,520,001$
19.  $(10^{1,549,333} + 10^{3,098,666} + 1) / 9,295,999$
20.  $(10^{3,872,380} + 10^{3,097,904} + 10^{2,323,428} + 10^{1,548,952} + 10^{774,476} + 1) / 4,646,857$

***And more.....***

*The two corrections to the formulae explored by the famous 17<sup>th</sup> century  
by the scientist; Euler.*

*How to reduce billions of mathematical calculations?*

*How to deal with secret numbers?*

*Three New Methods To Discover Primes*

*New way to deal with security of transfer of data*

*New ways to deal with huge number composed of millions of digits*

*2,000,000,000,000 mathematical equations were executed*

*9,000,000 new prime planets were generated*

*2,000,000 innovative mathematical elements of information dealing with  
DNA of primes were discovered*

*New blocks in number theory*

*New revolution in mathematical operations*

*New philosophy for dealing with 0 & 1*

*The 10,000,000 digit prime approach*