Study on Novel Geometric and Numeric Methods

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Abstract: *This paper discusses a variety of newly discovered numbers that have particularly useful and universal mathematical applications, and a geometric method using a variety of these numbers to prove their efficacy in simplifying modern mathematical operations.*

Take an isosceles triangle for reference. Assuming we can draw a circle around the triangle with the center at the point away from the base, we define the arc-intercepting outer side of the isosceles triangle, the 'base **X**,' as having the variable **X** for its length. The two always equal sides of the triangle towards the point of the circle are both of length **R**.

You can compare the two arc lengths, calculated of the circumscribed circle, or the following formula, in order to calculate the angle of the triangle in radian measures. I formulated a finite method of calculations which calculates the angle in radians perfectly. The formula relies on a large number of identities derived through logical mathematics which can be found below the formula hereafter. The formula, given inner angle of isosceles to be found is angle **D** then:

D = (E*((R^X)+(X^Q))*K)/(M*((R^B)+(X^R))*C)

The following numbers, some of which referenced above, have a variety of properties which help to formulate this equation. Their properties are of intensive mathematical significance in the opinion of your author. The numbers discussed are useful in far more than just geometry – they may hold even secrets of quantifiable infinity. Read onto the next page to understand the construction and properties of these new numbers: M,m,Q,B,E,C,K,F,N,J.

Let number Metta M=

-((n+M)/M) = (n/M)+1

-(M^n)-(M^(n-1)) = (M-1)(M^(n-1))*

*-((M^n)/(n*M)) = ((M^(n-1))/n)*

*-(n*M)/(M) = (n/M)*

-((M/(n^M))) =((M^n)/((n+1)^M))

-(n/M)=(n-((n/M)(M-1)))*

*-(n*M)=(n+((n)*(M-1)))*

*-((M*n)^M)/((M÷n)^M) = (n*n)^M for any two numbers n. Works for roots in multiplication by roots in dominant division, roots by division with roots in a dominant multiplication, and powers by division with powers in a dominant multiplication.*

-The value you obtain when you take any two numbers where their difference is as high as possible but the higher of the number quotients between the two is equal to the difference, and divide themselves by each other, and obtain the high proportion between the two of each other's quotients by each other to yield Metta over its inverse. The two unknown numbers are M^10 and M^11 and their proportion is M.

-The value added to when you alternately add and subtract two arrays of relatively higher and lower integer-base nth order powers of any one base number to any two negative and positive nth powers, added and subtracted to each other in a linear operation.

-The number generated by alternatively adding and subtracting proportions of 1/n (n=2-infinity) to each other to total infinity (theoretically).

-(Mn)/(nm) or its inverse should theoretically be able to be used to get the digits of a number, or the digits from a numeric expression backwards, from up to infinite digits. More complexly, it may be used in polynomial factoring to find infinite limits (numbers over zero and etc.) where they might theoretically converge on zero before true infinity. This can be

done by adding or multiplying each operator (even within parentheses) in the expression by these numbers, and then regressing orders of enumeration of their/with the exponentiation by/of these numbers, to maximum zero convergence from either perpendicular side of the equation where the line is broken.

Let number Mutta m=

$-((N+m)/M)-1 = (N/M)-(1/M)$

$-(M^{n})-(M^{(n-1)}) = m*(M^{(n-1)})$

$-(n*M)/(M^{n}) = 1+(M^{(n+1)})*(m)$

- The value added to when you subtract one from the number added to when you alternately add and subtract two arrays of relatively higher and lower integer-base nth order powers of any one base number to any two negative and positive nth powers, added or subtracted to each other in a linear operation.

-The value you obtain when you subtract one from the number your get when you take any two numbers where their difference is as high as possible but the higher of the number quotients between the two is equal to the difference, and divide themselves by each other, and obtain the high proportion between the two of each other's quotients by each other to yield Metta over its inverse. The two unknown numbers are M^{10} and M^{11} and their proportion is M.

-The number obtained when alternatively adding and subtracting proportions of 1/n (n=1-infinity) to each other to total infinity (theoretically).

-(Mn)/(nm) or its inverse should theoretically be able to be used to get the digits of a number, or the digits from a numeric expression backwards, from up to infinite digits. More complexly, it may be used in polynomial factoring to find infinite limits (numbers over zero and etc.) where they might theoretically converge on zero before true infinity. This can be done by adding or multiplying each operator (even within parentheses) in the expression by these numbers, and then regressing orders of enumeration of their/with the exponentiation by/of these numbers, to maximum zero convergence from either perpendicular side of the equation where the line is broken.

Let number Fetta F =

-The halfway point between M and m. Obtained by average.

-The square of the inverse of Metta.

Let number Netta N =

-The number value of the proportion: M over F or F over C.

Let number Cetta C =

-The number obtained when you divide M/3 by M.

Let number Etta E =

-The number obtained by multiplying M by C.

Let number Jetta J =

-The number obtained when you multiply M and N.

Let number Ketta K =

-The number that can multiply or divide any integer or decimal to be within 1/4 of a M-multiplication or division of that number. It is the theoretical closest value you can be sure you can always get as close as possible to M-extensions with.

Let number Quetta Q and Betta B =

-Q= the number whose distance from 1 is equal to the distance from 1 of B, and their inverses are each other.

*-The number x in the equation root x(y) * root y(x) = x^y * y^x, where y equals Betta B.*

-B= the number whose distance from 1 is equal to the distance from 1 of Q, and their inverses are each other.

*-The number y in the equation root x(y) * root y(x) = x^y * y^x, where x equals Quetta Q.*

Some of these identities have strange properties – despite being irrational to calculate, in our system they have no significant decimal values after 18. In systems that count the number 15 as a symbol and beyond, the digits regress to never go below or above 15 in length, making 16 symbols and a point.

K = 2.7

J = 2.0559639372…

N = 1.716759224978852575148…

M = 1.197584324798543218

Q = 1.0990…

B = 0.9099…

F = 0.69724…

E = 0.399189341418492846…

C = 0.333333333333333333

m = 0.197584324798543218

In any case now, I suggest translating other triangles into isosceles before calculating their angles. Perhaps the exploration of a 16-symbol counting system is in order.