

## 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 equal sides of the triangle towards the point of the circle are both of length R.

You can compare the two arc lengths, thus 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:

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

**Let number Metta M=**

-The number x in the equation  $\text{root } x(y) * \text{root } y(x) = x^y * y^x$ , where y equals Metta m.

-The value you obtain when you take any two numbers where their difference is as high as possible but the minimum number quotient 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, or obtain the high proportion between the two original numbers.

-The value added to when you alternately add and subtract two arrays of relatively higher and lower integer-base nth root

powers of any one base number to any two negative and positive nth powers, added to each other.

$$-n^M / 2 = En \text{ for any number } n$$

-Metta and Mutta may be used to calculate infinitely small digits: If you plug those numbers into an irrational relation that generates a number like pi it should work that for any number n, and for any number n to reverse its digits from the smallest/farthest to the integer digits, ((nM)/(nm)) reads digits back from infinitely small digits using n digits and ((nm)/(nM)) reads those infinitely small digits to the actual value when used in relations, and this *\*should\** work on less than irrational numbers to test.

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

**Let number Mutta m=**

- The number y in the equation  $\text{root } x(y) * \text{root } y(x) = x^y * y^x$ , where x equals Metta 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 root powers of any one base number to any two negative and positive nth powers, added to each other.

-The value you obtain when you subtract one from the number you get when you take any two numbers where their difference is as high as possible but the minimum number quotient 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, or subtract one from the high proportion of the two original numbers.

-Metta and Mutta may be used to calculate infinitely small digits: If you plug those numbers into an irrational relation that generates a number like pi it should work that for any number n, and for any number n to reverse its digits from the smallest/farthest to the integer digits, ((nM)/(nm)) reads digits back from infinitely small digits using n digits and ((nm)/(nM)) reads those infinitely small digits to the actual value when used in relations, and this *\*should\** work on less than irrational numbers to test.

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

**Let number Fetta F =**

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

**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 multiply M by M by M 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 =**

*-The number whereat  $1/Q = 1-(Q-1)$ , and its inverse is B.*

Some of these identities have strange properties - despite being irrational to calculate, they extend towards having no significant decimal values after 18. If there are no ...'s after the end of the number written, it means that number does not seem to have further calculable significant figures. For how useful they are in this instance of triangles and others unlisted, and even for how amazed I am at all their functions and possibilities, I must limit what I write about them or it will take far too long. I do not understand how some of these identities can terminate at precisely 18 digits and yet provide precise calculations, or what that means for number theory, but I am in research of the significance of the number 18.

$$K = 2.7$$

$$J = 2.0559639372\dots$$

$$N = 1.716759224978852575148\dots$$

$$M = 1.197584324798543218$$

$$Q = 1.10000000000000000001$$

$$F = 0.69758432479854321451871\dots$$

$$E = 0.399189341418492846\dots$$

$$C = 0.33333333333333333333$$

$$m = 0.197584324798543219$$

$$B = 0.90000000000000000009$$

In any case now, I suggest translating other triangles into isosceles before calculating their angles.