



Numbers, Determinants, Expansion of Euler Identity and Variables

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ABSTRACT

In This Paper We Discuss Concept of Numbers, General Formulas, Euler Identity and Variables.

Key words

Numbers, Arbitrary constants, Natural Numbers, Expansion Of Euler Identity and Variables, Determinants.*properties:*

(1). $a^2 + b^2 > 0$ at $a^2 \in N, b^2 \in N$

(2). $a \cdot b > 0 \forall a \in N, b \in N$

1. Introduction

We Discuss Natural Numbers. Natural are Even or Odd. Numbers Play an Important Role in Number Theory. There Many Unsolved Problems in Mathematics Based On Numbers.

Natural Numbers are The Product Of Human Spirit. We Discuss Determinants. We Discuss General Relationship Between $x^2 - 2x + 2, x^2 - 4x + 4, x^2 - 6x + 6, \dots$. There Exist Several Types Of General Relationship in Mathematics.

We Discuss General Determinants Must Equal Three Times Same Numbers. We get The Solution. There Exist Many Complex Functions In Mathematics. There also Exist Super Highly Complex Functions. We Also Discuss Quadratic Expression. We Destroy it into Different Parts and Then Adding These Parts We get General Numerical Value. Quadratic Expressions is Going Complex In Higher Level. We also Expand Euler Identity. We also Discuss Variables and Properties Based On Topological Figures. I Give You 4 Figures. In This Paper. Every Figure In This Paper Have (3-4) Properties. There are Concepts Numbers, Two Functions, Quadratic Expressions, Expansion Of Euler Identity, and Variables. All These Paper Create The Whole Paper. I deeply Interested in Two Functions and Euler Identity. We Give You General Formula Based ON Determinants. I am Interested To Expand Euler Work. Leonard Euler is a Famous Mathematicians. In This Paper We Cover Mathematical Analysis. Even Numbers are 2,4,6,8,10,..... and Odd Numbers 1,3,5,7,9,11,..... Natural Numbers Always Possitive Integers. We Discuss Topological Figures. In Topology Figures Play an Important Role. Topological Figures are Highly Complex. Things are Complex In Topology. This Paper Contain Various Formulas. It Play an Important Role in Pure Mathematics and Applied Mathematics. We also Give You Five Mathematical Statement. These are useful In Mathematics and Physics. These State Increase Knowledge about Mathematical Objects. There is a Relationship Between Numbers Natural Numbers, Rational, Irrational Numbers, Imaginary Numbers. There exist Several Types of Determinants in Mathematics. In Mathematics There is Lots of Use Of Determinants. There exist Many Complex Functions in Mathematics. In Mathematics there is a lots of use of Functions. Functions Play Important Role in Pure Mathematics. In topology there is a lots of use of Figures.

1. Heading1

Concept of Numbers, Expression, General Relationship.

1. Heading2

Expansion Of Euler Identity.

1. Subheading1

Concept Of Figure 1 and Figure 2.

1. Subheading2

Four Mathematical Statements.

General Relationship:

$(x-2)(-(\text{Even Number})x+2)$ at $x=1$

Taking $(x-2)$(1)

$-(\text{Even Number}x+2)$(2) Multiplying (1) and (2) We get.

$(x-2)(-(\text{Even Number})x+2)$ at $x=1$

$[-(\text{Even Number})x^2+2x+2x(\text{Even Number})-4$ at $x=1]=0$

Expression Must Be $x^2 - \text{Even Number} + \text{Even Number}$, Where $\text{Even Number} = \text{Even Number}$ and Ratio Between 2Even Number and Even Number= 1Even Number Are Inculded in These Expression.

$x^2 - 2x + 2,$

$x^2 - 4x + 4,$

$x^2 - 6x + 6,$

.....

Example1: $x^2 - 2x + 2,$

Solution:

Taking $(x-2)$(1)

$(-2x+2)$(2) Multiplying (1) and (2) We get. or

Breaking Above Expression We Get ven Expression $x^2 - 2x + 2$

$(-2x^2 + 2x + 4x - 4)$ at $x=1$ We Get

$(-2(1)^2 + 2(1) + 4(1) - 4) = 0$

Example1: Given Expression $x^2 - 4x + 4$

Solution:

Taking $(x-2)$(1)

$(-4x+4)$(2) Multiplying (1) and (2) We get. or

Breaking Above Expression We Get $(x-2)(-4x+4)$

Expanding it We Get.

$(-4x^2 + 4x - 8x + 8)$ at $x=1$ We Get

$(-4(1)^2 + 4(1) + 8(1) - 8) = 0$

General Relationship:

Expression: $x^2 - 2\text{Even Number} + \text{Number}$

Adding $(x-2)$(1)

Taking $(-2\text{Even Number} + \text{Even Number})$ Of Above Expression We Get.....(2)

Taking x From Above Expression We Get.....(3)

Substracting (2) From (1) and Adding (3) We Get.

Breaking Expression in Such a Way That: = (at $x = 1$) $\{ (x - 2) - (-2(\text{Even number}) + (\text{Even number}) + x = 2$ (Always) }

Example1: $x^2 - 2x + 0$

Solution :

Adding (x-2).....(1)

Taking (-2x+0) Of Above Expression We Get.....(2)

Taking x From Above Expression We Get.....(3)

Subtracting (2)From (1) and Adding (3) We Get.

$$(At x=1) [(x-2)-(-2x+0)+x]=[(1-2)-(-2(1)+(1))]=2$$

Example2: x^2-4x+2

Solution :

Adding (x-2).....(1)

Taking (-4x +2)Of Above Expression We Get.....(2)

Taking 'x' From Above Expression We Get.....(3)

Subtracting (2)From (1) and Adding (3) We Get.

$$(At x=1)[(x-2)-(-4x+2)+x]=[(1-2)-(-4(1)+2)+(1)]=(-1)-(-4+2)+1=2$$

Example1: x^2-4x+2

Solution : Adding (x-2).....(1)

Taking (-6x +4)Of Above Expression We Get.....(2)

Taking 'x' From Above Expression We Get.....(3)

Subtracting (1)From (2) and Adding (3) We Get.

$$(At x=1)[(x-2)-(-6x+4)+x]=[(1-2)-(-6(1)+4)+(1)]=(-1)-(-6+4)+1=2$$

Theorem: A single line can have infinite many partition

$$1. \frac{AB}{2} = M_1$$

$$\frac{M_1}{2} = M_2$$

$$\frac{M_2}{2} = M_3$$

.....

.....

.....

$$\frac{M_n}{2} = M_n$$

Exist New Identity Based On Euler Identity in a Such a Way That:

$$[1] e^{\pi i + 1000000000000000000} = -1$$

$$[2] e^{i\pi+1} = -2.71828182845905$$

Exist Relationship Between Determinants:

$$1 \quad 0 \quad 0$$

$$2 \quad 1 \quad 0=1$$

$$2 \quad 2 \quad 1$$

$$2 \quad 0 \quad 0$$

$$3 \quad 2 \quad 0=8$$

$$3 \quad 3 \quad 2$$

$$3 \quad 0 \quad 0$$

$$4 \quad 3 \quad 0=27$$

$$4 \quad 4 \quad 3$$

.....

.....

.....

In General Way

$$\begin{matrix} a+1 & 0 & 0 \\ a+2 & a+1 & 0 \\ a+2 & a+2 & a+1 \end{matrix} = (a+1)^3 \text{ for number be Natural.}$$

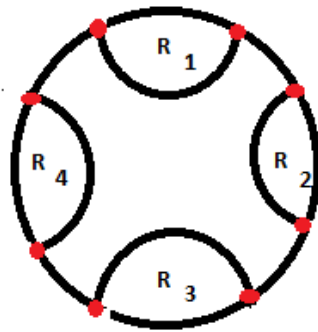


Figure 1 Circle, Four Curves

Exist Properties in a Such a Way That:

1. $\frac{R_1}{R_2} + \frac{R_3}{R_4} = 2$
2. $R_1 = R_2 = R_3 = R_4$

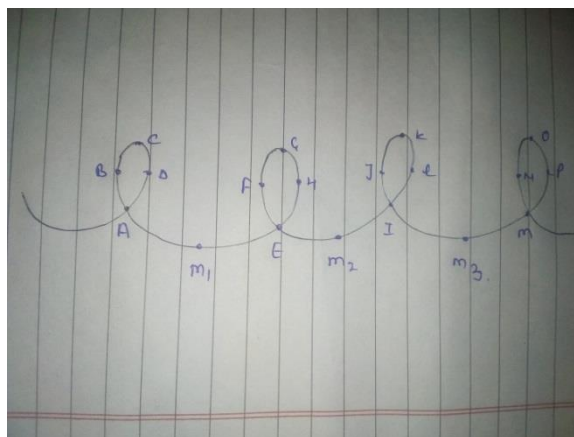


Figure 2 Curves

Exist a Relationship in a such a way that:

$$ABCD = AM_1E = EFGHE = EM_2I = IJKLI = IM_3M = MNOPM = \dots$$

This figure is unique. Means This Relationship is a general With respect to Figure.

Mathematical Statements:

1. There exist infinite many rings so that they form a sphere.
2. There exist infinite many points so that they form a any topological figure.
3. There exist infinite many lines so that they form a any topological shapes.
4. Double lines and double curves generate the higher complex Mathematics

Exist Relationship In a Such a Way That:

We Check Value Only Even Numbers and Then We Get Formula For The Area Of Square

$$\frac{(x+y)^2}{4} \text{ (at } x = \text{Even Number and } y = \text{Even Number Same as } x = \text{Even Number.)} = x^2 \text{ (Even Number Must Lie } x \in x \text{ or } x \in y$$

Example1: at $x=2, y=2$

$$\frac{(x+y)^2}{4} = \frac{(2+2)^2}{4} = \frac{4^2}{4} = \frac{16}{4} = 4 = 1.b = 2.2 = 4 \text{ Area Of Square}$$

Example1: at $x=4$, $y=4$

$$\frac{(x+y)^2}{4} = \frac{(4+4)^2}{4} = \frac{8^2}{4} = \frac{64}{4} = 16 = 1.b = 4.4 = 16 \text{ Area Of Square}$$

Another Examples are True .

Only Even Numbers.

Abbreviations:

Concept of numbers

Concept Of Determinants

Concept Of Expansion Of Euler Identity

Mathematical Statement

Concept of variables

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Conclusion:

Increase knowledge about Numbers. Sequences and their types. It Also Increase Knowledge about Pure Mathematics.

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