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# Expansion of Euler Identity, Determinants Concept of Natural Log, Numbers and Variables

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**ABSTRACT:** We Discuss new Euler identity in this paper. in my Perivious paper we also Give You Euler identity in ijrpr journal. I am **Harshvardhan**. We Discuss Numbers In This Paper. We also Discuss Natural log In This Paper. We Expand Euler Work In This Paper. In Mathematics There is a Lots Of Use Of Numbers. The Whole Mathematics is based on Numbers. We Discuss General Relationship Between Numbers. Numbers Play Important Role In Mathematics. We Also Discuss Determinants in this paper.Determinanats With General Relationship.

**KEY WORDS:** Expansion of Euler identity ,Numbers , Concept Of Natural log.

## I. INTRODUCTION

We Discuss Relationship Between Natural log and We Also Expand Euler Work in This Paper. We also Discuss Determinanats in This Paper. I also Discuss Numbers in This Paper Numbers are Of Several Types.We Discuss Relationship Between Imaginary Number and and Natural log. We also Expand Euler Work In This Paper. In **Journal IJRPR** There is my work On Expansion of Euler Identity. **(1)Expansion Of Euler Identity, Determinants ,Mathematical Statements etc.** I Expand Euler Work In This Paper. I Also Discuss General Relationship Between Numbers. We also Discuss General Relationship Between Determinanats and Euler Identity.

### 1.Heading1.1

We Expand Euler Work in this paper. We Gave New Euler Identity in This Paper

1.  $e^{i\pi+\sqrt{3}-10000}=0$

2.  $e^{i\pi+1^{(-1)}}=-e$

3.  $e^{i\pi+2^{(-1)}}=-\sqrt{e}$

4.  $e^{i\pi+3^{(-1)}}=-\sqrt[3]{e}$

$e^{i\pi+4^{(-1)}}=-\sqrt[4]{e}$

.....

.....

.....

.....

5.  $e^{i\pi+x^{(-1)}}=e^{-\frac{1}{x}}$

### 1.Heading 1.2

We Discuss Relationship between Two Functions. We Derivative them then we get the result

#### 1.1Subheading 1.1

Concept of Natural log

$\ln i = -\frac{\pi}{2}$

#### 1. Subheading 1.2

We Give you Mathematical Expression. This Relationship play important role in algebra.

We Expand Euler Work in This Paper. We Give You Different Euler Identities.

We Discuss Determinants in this paper. Evaluate them and then we get the result.

$1 \ n + 1 \ \backslash 1$

$1 \ n + 1 \ n + 1 = 0$

$1 \ n + 1 \ 1$

Example1

$$\begin{matrix} 1 & 2 & 1 \\ 1 & 2 & 2 \\ 1 & 2 & 1 \end{matrix}$$

$$\begin{matrix} 1 & 2 & 1 \\ 1 & 2 & 2 \\ 1 & 2 & 1 \end{matrix}$$

$1 \cdot (2 \cdot 1 - 2 \cdot 2) - 2(1 \cdot 1 - 1 \cdot 2) + 1(2 \cdot 1 - 1 \cdot 2) = (2-4)-(2-4)+(0-0) = -2+2=0$



Exapmle2

$$\begin{matrix} 1 & 3 & 1 \\ 1 & 3 & 3 \\ 1 & 3 & 1 \end{matrix}$$

$$1 \cdot (3 \cdot 1 - 3 \cdot 3) - 3(1 \cdot 1 - 1 \cdot 3) + 1(3 \cdot 1 - 1 \cdot 3) = -6 + 6 = 0$$

Example4

$$\begin{matrix} 1 & 4 & 1 \\ 1 & 4 & 4 \\ 1 & 4 & 1 \end{matrix}$$

$$1 \cdot (4 \cdot 1 - 4 \cdot 4) - 4(1 \cdot 1 - 1 \cdot 4) + 1(4 \cdot 1 - 1 \cdot 4) = -4 - 16 - 4(1 - 4) + (0 - 0) = -12 + 12 = 0$$

## II. RELATIONSHIP BETWEEN NUMBERS

Taking Numbers in a such a way that:

2,3,4,5,6,7,8,9,10,11,12,13,14,15,.....

b-a=3 always

$$5-2=3$$

$$6-3=3$$

$$7-4=3$$

$$11-8=3$$

$$12-9=3$$

$$13-10$$

.....  
 .....  
 .....  
 .....  
 .....

Exist Relationship Between Variables. Variables are Of Several Types. There exist Several Relationship Between Variables. In Mathematics There is Several Types Of Mathematical Relationship Between Variables.

Expression given in a such a way that:

$$\frac{5 + 6}{3 + 4}$$

$$11-6=5 \dots \dots \dots (1)$$

$$7-4=3 \dots \dots \dots (2)$$

$$5-3=2 \text{ Always.}$$

Expression In a Such a way That:

$$\frac{7 + 6}{5 + 4}$$

$$13-7=6 \dots \dots \dots (1)$$

$$9-5=4 \dots \dots \dots (2)$$

$$6-4=2 \text{ Always}$$

$$\frac{5+x}{7+\frac{x}{2}} - \frac{5+x}{2(7 \cdot 2+x)} = (At x = 2) \frac{5+2}{(14+2) \cdot 2} = \frac{7}{16 \cdot 2} = 32-7=25 \dots \dots \dots (1)$$

$$\frac{5+x}{7+\frac{x}{2}} - \frac{5+x}{2(7 \cdot 2+x)} = (At x = 1) \frac{5+1}{2(7 \cdot 2+1)} = \frac{6}{15} = 15-6=9 \dots \dots \dots (2)$$

Sustractiong Equation (1) from (2)

$$25-9=16 \dots \dots \dots (3)$$

Susbstracting equation(3) from (2)

$$16-9=7 \dots \dots \dots (4)$$

Sustacting Equation (2) from (4)

$$9-7=2 \text{ Always general relationship.}$$



III. EXSIT RELATIONSHIP BETWEEN VARIABLES

$$\text{If } \frac{x+5}{x^2+5x^5} = (\text{At } x=2) = \frac{2+5}{4+5(32)} = \frac{7}{164} \dots\dots\dots(1)$$

$$\frac{x+5}{x^2+5x^5} = (\text{At } x=3) = \frac{3+5}{9+5(243)} = \frac{8}{9+1065} = \frac{8}{1074} \dots\dots\dots(2)$$

Taking 1074 and sustarct from 164  
=910

$$910+164=765 \dots\dots\dots(3)$$

$$1074-765=318 \dots\dots\dots(4)$$

$$910+318=1228 \dots\dots\dots(5)$$

$$1228-1074=144$$

$$x^2 = x \cdot x = 12 \cdot 12 = 144$$

$$\frac{x + 5}{x^2 + 5x^5}$$

Denominator Part  $x^2$

We Discuss relationship between algebra. We put value into these Algebra then we get the result.

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**Contributions:** On numbers , Euler Identity, Determinants Concept of Natural log.

**Additional information:** Must working on numbers, Two Functions , Concept Of Natural log, Variables.

**Abbreviations:**

- Concept of numbers
- Concept Determinanats
- Concept Of Natural Log.
- Mathematical Statement
- Eof Euler Identity

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IV. CONCLUSION

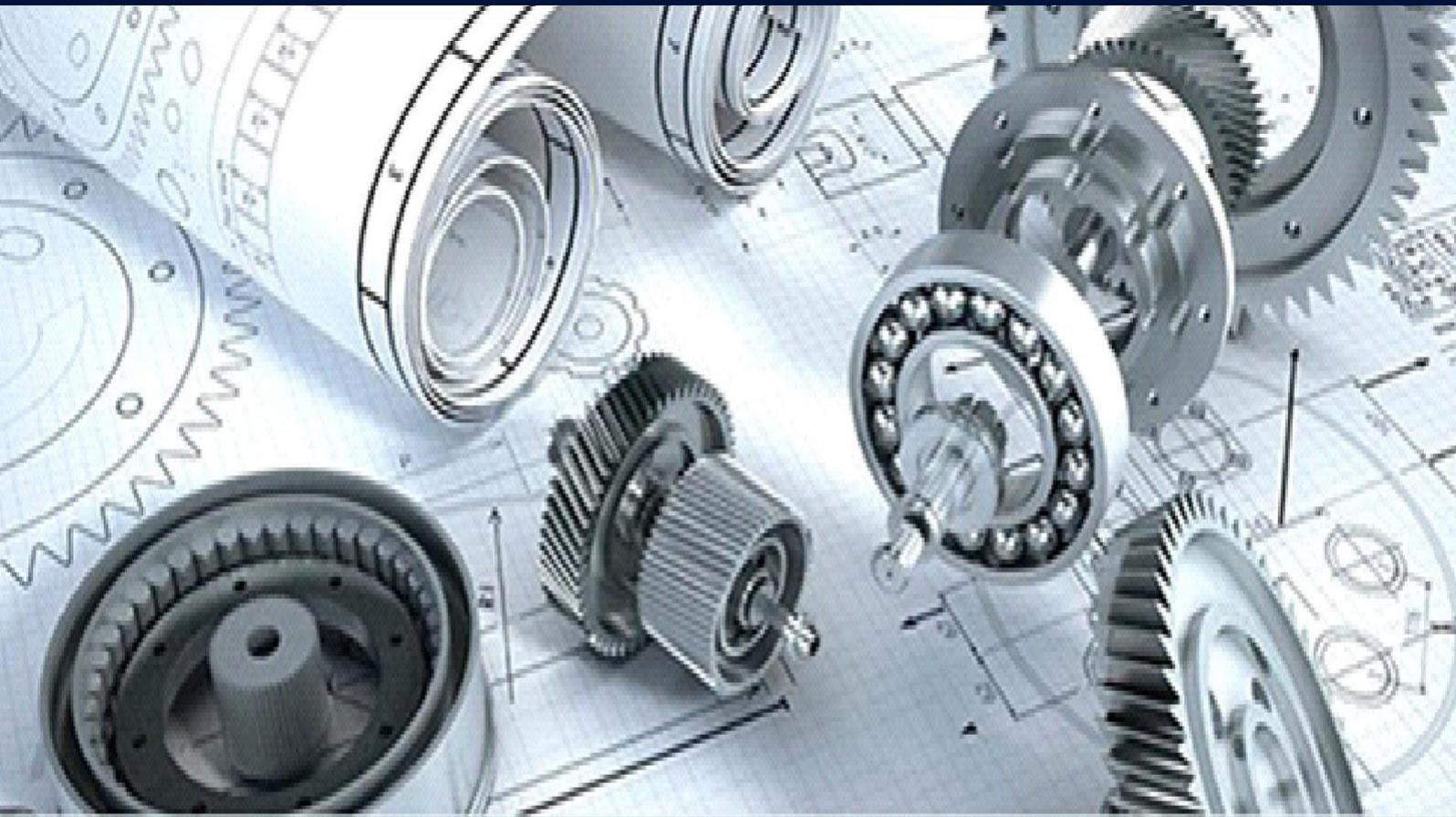
It Also Increase Knowledge about Pure Mathematics. Concept Of Variables. Concept of Natural Log. Expansion Of Euler Identity.

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