"THE INFINITY-IOTA"

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Abstract: *In this paper I am giving a value of "zero upon zero".*

Keywords: *Euler's Relation, Iota and the Infinity – Iota.*

INTRODUCTION

In this paper I defined the value of the "zero upon zero" by using the Euler's Relations and trigonometry functions.

DERIVATION

Consider the Euler's Relation

$$e^{i\theta} = cos\theta + i\ sin\theta \ \ldots\ldots\ldots\ldots\ldots\ldots\ (1)$$

Consider the trigonometry relation

$$COS^2\ \theta + SIN^2\ \theta = 1$$

$$COS^2\theta = 1 - SIN^2\theta$$

Divide by $COS\theta$ $in\ both\ sides\ we\ get\ as$

$$COS\theta = \frac{1}{COS\theta} - \frac{SIN^2\theta}{COS\theta} \ \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ (2)$$

Now put value of $COS\theta\ from\ relation$ (2) $in\ relation$ (1)

$$e^{i\theta} = \frac{1}{COS\theta} - \frac{SIN^2\theta}{COS\theta} + \ i\ SIN\theta$$

$$e^{i\theta} - \ i\ SIN\theta = \frac{1}{COS\theta} - \frac{SIN^2\theta}{COS\theta}$$

$$e^{i\theta} - i\ SIN\theta = SEC\theta - \frac{SIN^2\theta}{COS\theta}$$

Divide by $SIN\theta$ $in\ both\ sides.$

$$\frac{e^{i\theta}}{SIN\theta} - i = \frac{SEC\theta}{SIN\theta} - \frac{SIN\theta}{COS\theta}$$

$Let\ \theta$=0°

$$\frac{e^{i.0}}{SIN0} - i = \frac{SEC0}{SIN0} - \frac{SIN0}{COS0}$$

$$\frac{1}{0} - \ i = \frac{1}{0} - \frac{0}{1}$$

$$\frac{1}{0} - \ i = \frac{1}{0} - 0$$

$$\frac{1}{0} - \frac{1}{0} = i$$

$$\frac{1-1}{0} = i$$

$$\frac{\mathbf{0}}{\mathbf{0}} = \boldsymbol{i} \ \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \ (3)$$

Relation (3) is result and known as THE INFINITY-IOTA.

REFERENCE

[1] I used only basic function of trigonometry and The Euler's Relation.