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THE LAW OF EXPONENTIAL MULTIPLICITY

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Dedication:
This research work is dedicated to all mathematicians and scientists.

CONTENTS:

INTRODUCTION

Aimsandobjectives:
The essence of this research work is to study, understand and apply the law of Exponential Multiplicity, to produce great multiplication of numbers.

THELAWOFEXPONENTIALMULTIPLICITY

1) **First Law of Exponential Multiplicity**.

Given all things being equal, "the Product" of the shared/distributed portions of a number, is greater in value, when it's equally shared/distributed, than when unequally shared/distributed.

DEFINITION/NOTATIONS

The Product is the result or quantity obtained by multiplying the shared portions of the given number.
The symbol ^, implies exponential power.
The symbol ~ implies equivalent to.

Example:
Given 20 as a number shared in four different ways, we have thus:

A) 7, 8, 5, 0 ~ (7+8+5+0)= 20
B) 4, 6, 5, 5 ~ (4+6+5+5)= 20
C) 5, 5, 5, 5 ~ (5+5+5+5)= 20
D) 6, 5, 6, 3 ~ (6+5+6+3)= 20

Their Products, (results of their multiplications) will be thus:

A) 7 x 8 x 5 x 0 = 0
B) 4 x 6 x 5 x 5 = 600
C) 5 x 5 x 5 x 5 = 625
D) 6 x 5 x 6 x 3 = 540

The simple illustration above, indicates clearly that C = **625**, is greater in value than others, because the number 20, is equally shared/ distributed as shown above.

2) **Second Law of Exponential Multiplicity**.

The "Product" of the shared portions of a number, attains a higher value, when the number is equally distributed/shared into seven parts.

Example:
Given 20 as a number, let's work it out.
20/7 = 2.86 (to two decimal places).
The "Product" shall be thus:

E) 2.86^7
2.86 x 2.86 x 2.86 x 2.86 x 2.86 x 2.86 x 2.86 = **1565.17**

The above result E) = **1565.17**, is considerably higher than C) = **625.**
However, this applies mostly for numbers, equal to or greater than **18 (A≥ 18).**

3) **The Third Law of Exponential Multiplicity**.

The "Product" of the equally shared/distributed portions of a number, attains its highest value, when the number is divided by 36.5% (thirty six point five percent) of its initial value.

Example:
Given 20 as the initial value of the number, let's work it out.

20 x 0.365 (36.5%) = 7.3
7.3 is 36.5% of 20, then 20/7.3 = 2.74 (two decimal places).
Okay, let's work out the product.

F) 2.74 ^ 7.3 = 1568.84

Therefore, F) **= 1568.84**, is the highest value/product.

INFERENCE

The following deductions could be obtained from the postulated law, thus:

- Division and distribution, precedes and initiates the multiplication process.
- A very high product is obtained, when the number is equally and uniformly shared/distributed.
- A higher value of product is achieved, when the number is equally shared into seven portions. Albeit, this applies for numbers equal to or greater than eighteen (**A ≥ 18).**
- The highest product is obtained, when the number is divided by its 36.5% value, then be equally shared/distributed.

MATHEMATICAL PROOF

In mathematics, there is a principle termed **BODMAS,** which stands for:
B…Bracket
O…Orders/Of
D...Division
M…Multiplication
A…Addition
S…Subtraction.

From the above sequence, it's very clear that division preceded multiplication, followed by addition, then subtraction; why subtraction after the addition?
The reason is this;
Whenever a substance discontinues dividing itself, it will begin declining and decreasing in number and size.

BIOLOGICAL PROOF

In microbiological science, how does a virus or bacteria multiplies?
It's by dividing itself (viral/bacterial replications), thereby multiplying rapidly in the host body.
The essence of antibiotics/antiviral drug, is mainly to prevent further division processes of the virus/bacteria, in order to stop it's multiplications.

CONCLUSION

I suppose this research work might have some limitations, therefore, it's subject to further and continued improvement, towards perfection.
I implore you to critically analyze it, to understand its underlying principles, and document your findings.
Thanks you!

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