abstract-

"the perfect symmetry number theory"

In accordance with formalism, one of the two most widely accepted foundations for modern mathematics, an experimental axiomatic system having a variant number theory is admissible for study if it is self-consistent. Nonetheless, any given "revised" system is without exceptional theoretical value or applicability unless it is comparatively advantageous to the "conventional" system.

This unconventional work initially involves the creation of a revised multiplication in which the revised product of two negative, real number factors equals a negative real number, contrary to conventional multiplication. This precludes the existence and need for the unit imaginary number and thus, the complex number system, etc.

By a method analogous to how conventional involution is built upon conventional multiplication, likewise is revised involution built upon revised multiplication. Although addition is identical under both systems, with two of its three binary operations revised, a revised arithmetic exists and consequently, a revised algebra. Further ramifications include a revised analytic geometry, revised analytic trigonometry and revised calculus. In fact, every branch of mathematics that is wholly or partially based upon numerical definitions and methods is affected.

Comparatively, revised arithmetic requires three number systems instead of an infinite number out of which only 13 have been invented to date (i.e., no complex [2-D] or hypercomplex number systems: 4-D, 8-D, 16-D, 32-D, 64-D, 128-D, 256-D, 512-D, 1024-D, etc) and three binary operations instead of six (i.e., no inverse binary operations: subtraction, division, evolution) yet revised algebra based upon it maintains all comparable problem-solving capabilities.

In revised algebra, a binomial, linear equation to <u>any</u> degree is solvable since after revised cross-multiplication, it is reducible to the original, first degree equation. In conventional algebra, a binomial, linear equation to the fifth degree or higher is generally impossible to derive solutions for.

Ultimately, the two numerical systems are fully isomorphic in describing the same underlying mathematical reality as it exists independent of any contrasting, arbitrarily-invented, mathematical languages of interpretation but the revised system is vastly superior to the conventional system in accordance with Occam's razor.