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Incomplete Existing Algebra to Support Mathematical Computations

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Abstract : The existing subject Algebra is incomplete to support mathematical computations being done by scientists of all areas: Mathematics, Physics, Statistics, Chemistry, Space Science, Cosmology etc. even starting from the era of great Einstein. A huge hidden gap in the subject 'Algebra' is unearthed. All the scientists today, including mathematicians, physicists, chemists, statisticians, cosmologists, space scientists, and economists, even starting from the great Einstein, are lucky that they got results without facing any contradictions or without facing computational errors. Most surprising is that the results of all scientists, including Nobel Prize winners, were proved by them by doing experiments too. But in this paper, it is rigorously justified that they all are lucky. An algebraist can define an infinite number of new algebraic structures. The objective of the work in this paper is not just for the sake of defining a distinct algebraic structure, but to recognize and identify a major gap of the subject 'Algebra' lying hidden so far in the existing vast literature of it. The objective of this work is to fix the unearthed gap. Consequently, a different algebraic structure called 'Region' has been introduced, and its properties are studied.

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