

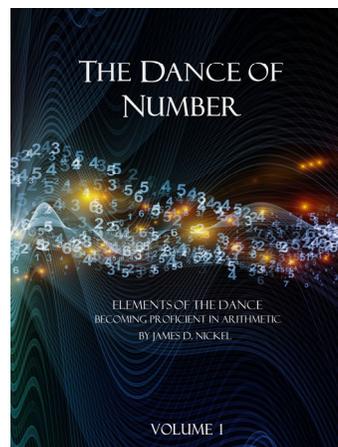
The Dance of Number

Explorations into the Nature of Number

By James D. Nickel, BA, BTh, BMiss, MA
Author of *Mathematics: Is God Silent?*

The *Dance of Number* covers the concepts pertinent to Arithmetic, Algebra, Geometry, Trigonometry, and mathematical reasoning in two parts, two volumes per part. It is ideal for teachers, parents, or anyone interested in learning how to instill good number sense in students, too often a missing ingredient in the math education of the Western world, Christian home and day schools included.

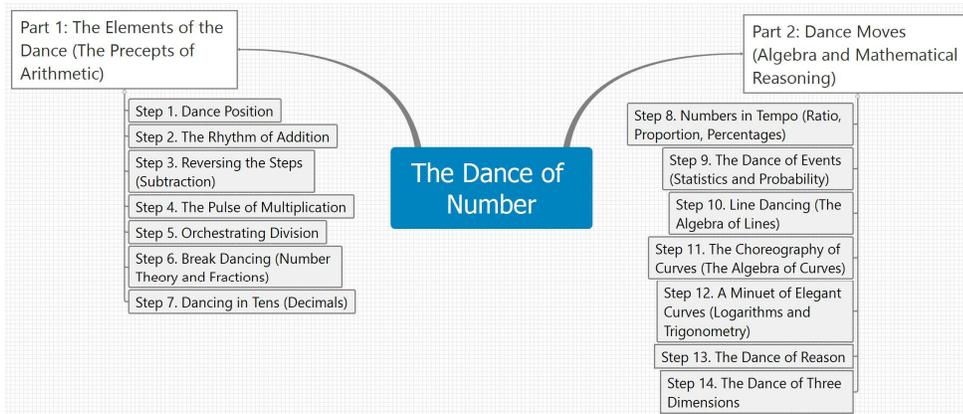
The revolution the author introduces in the text, albeit not new, is left-to-right methods consistently applied to the four operations of arithmetic. The ease of this method increases speed in computation, guarantees better accuracy, and engenders immediate estimates. This is the way arithmetic is taught in the Far East and in India. For years, the author asked himself why, for example, Japanese students excel in numeracy and Americans lope behind at a far distance. It is because of the Japanese abacus called the Soroban and how it uses number complements, and left to right computation, *to instill an astounding mastery of number sense.*



The text explains these concepts in detail: a mastery of arithmetic and pre-algebra concepts, including measurement, the solution methods to linear and non-linear equations, an introduction to probability and statistics, a survey of fundamental geometric concepts, a thorough discussion of trigonometric ratios and functions, an exploration of infinite processes, and the mathematical methods of proof. It is aimed at Grades 7-10 and it requires the ability to reason and develops reasoning skills in terms of mastery of concept, while also exacting

drill work for reinforcement. The addition of a detailed solutions manual is an important augment to the text.

The Dance of Number systematically explicates and applies the left-to-right paradigm starting from counting as foundation, using the Soroban as an introduction into the



fascinating and beautiful world of arithmetical interconnections. Because of this ground up approach, any teacher of arithmetic, from K-5, can reap dividends by studying the text explanations in the first five chapters.

Distributed throughout are a plenitude of quotes that serve as a source of entertainment, meditation, and discussion.

The text also builds mathematics, as a branch of knowledge, in a way that upholds the Triune God as the ultimate ground of rationality. In a world that assumes the neutrality of knowledge, *this emphasis is vital because it unfolds mathematics in its relationship to objective reality and the Creator and Sustainer thereof.*

If you want a challenging and rigorous demonstration of the beauty and power of number, *The Dance of Number* is for you.