A PRIMARY ARITHMETIC

Published @ 2017 Trieste Publishing Pty Ltd

ISBN 9780649476695

A Primary Arithmetic by Gordon A. Southworth & John C. Stone

Edited by Trieste Publishing Pty Ltd.
Cover @ 2017

www.triestepublishing.com

GORDON A. SOUTHWORTH & JOHN C. STONE

A PRIMARY ARITHMETIC

Trieste

A

PRIMARY ARITHMETIC

GORDON A. SOUTHWORTH
SUPERINTENDENT OF SCHOOLS, SOMERVILLE, MASS.

AND

JOHN C. STONE, A.M.
ASSOCIATE PROFESSOR OF MATHEMATICS, STATE NORMAL COLLEGE, YPSILANTI, MICHIGAN

οὐ πολλ' ἀλλὰ πολύ

BENJ. H. SANBORN & CO.
BOSTON NEW YORK CHICAGO

Norwood Press
J. S. Cushing & Co. — Berwick & Smith Co.
Norwood, Mass., U.S.A.

PREFACE

"The Southworth-Stone Arithmetics" are designed to cover the work of all the elementary grades in which a text-book is commonly used, beginning with the third-year grade and ending with the last year below the high school.

The books have been prepared not by theorists to exploit their peculiar notions, but by teachers of long and successful experience. They follow the order of subjects and the lines of development established by the highest educational authorities.

No attempt has been made to follow the so-called "spiral plan," now decadent; each grade, however, thoroughly reviews and carries forward the work of the preceding grades, new topics being introduced in order to stimulate the interest of the student and to develop his power.

In the presentation of subjects the inductive method has been employed throughout in a way that calls for study and effort and secures that mathematical training that never comes by mechanical figuring and imitation. This logical development of subjects differentiates the series from mere books of problems.

To secure skill and proficiency in the more important subjects, abundant exercises for drill and practice have been provided. A profusion of oral and written problems is given in about equal proportion. The number to be used must depend upon the need of the student. It will be found that fewer problems carefully solved and logically analyzed will be more valuable than many mechanically performed.

Many subjects heretofore treated in arithmetics have been omitted as non-essential or beyond the legitimate work of the ele-

mentary schools. Enough has been given, however, to meet the demands of business and to furnish the requisite mental discipline.

The methods employed in all the books of the series have been tested in manuscript in the model or training classes in the State Normal College at Ypsilanti, Michigan. The authors acknowledge their indebtedness to Miss Abigail Roe and Miss Mary Steagall and other teachers in that institution for valuable suggestions growing out of such tests. Especial thanks are due to President L. H. Jones of the College, for his counsel as the work has progressed and for his aid in making the books worthy of adoption and use.

This book of "The Southworth-Stone" Series is designed for the use of third and fourth year pupils in graded schools. It is arranged in two chapters.

Chapter I assumes that pupils have had oral instruction and blackboard exercises during their second year, and that they are familiar with combinations and separations of numbers to twenty. Oral and written exercises in addition and subtraction are first given; the multiplication and division tables are developed and taught as inverse operations; numerous exercises, both oral and written, are given in the fundamental processes; drill tables are furnished; simple fractions are introduced; denominate numbers are taught; and an abundance of problems and review exercises supplied.

Chapter II reviews and extends these subjects with rather more difficult exercises. The measurement of rectangular surfaces and solids is introduced and also simple decimals. Exercises in great variety abound, and diagrams are used when helpful.

CONTENTS

NOTE. — A single asterisk (*) before a title in the Table of Contents indicates a subject whose place in the scheme is determined in part by its fitness for giving practice in the application of the mathematical principles and processes already learned.

A double asterisk (**) before a title indicates Drill Exercises, Miscellaneous and Review Problems, etc., introduced at frequent intervals to keep all facts, principles, and processes already learned fresh in the pupil's mind, and to give frequent practice in applying them to varied conditions.

Parentheses are used to indicate coördinated or correlated subjects, or to show the application or purpose of the work covered by the main title.

CHAPTER I

THIRD YEAR

CHAPTER II

Fourth Year