

**JUNIOR ARITHMETIC: A
TEXT BOOK FOR FOURTH
AND FIFTH YEAR PUPILS**

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Junior Arithmetic: A Text Book for Fourth and Fifth Year Pupils by Charles E. White

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CHARLES E. WHITE

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AND FIFTH YEAR PUPILS**

JUNIOR ARITHMETIC

*A TEXT BOOK FOR FOURTH AND
FIFTH YEAR PUPILS*

BY

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PREFACE.

In arranging the work of this book, it has been the author's aim to adhere to a proper order of topics, and to treat each topic with proper fulness, not only with reference to its business application, but also with regard to its importance as a basis for more advanced study.

The oral, mental, written, and abstract work are arranged in the relative order and proportion that naturally lead pupils to a clear understanding of processes, as well as to habits of rapid and accurate thinking.

Much time may be saved by early *mastering* the four fundamentals, particularly column addition and long division, frequent exercises in which occur throughout this book.

Pupils often attempt to solve problems before they have thought out the processes. This leads to erroneous results, loss of time, and discouragement. The practice of first indicating processes by means of signs encourages the pupil to do his *thinking* first; moreover, it often permits a very material shortening of the work by cancellation. A few pages of merely indicated work are introduced, to emphasize the advantages of such operations.

The latter can be carried into the written work of the book at the pleasure of the teacher.

A few short methods, such as multiplying and dividing by the aliquot parts of \$1.00, and by the parts of 100 and 1,000, etc., are introduced. Pupils in the fifth year can master them readily, and at a great saving of time.

Questions of relations (more fully explained in the body of the book) will make plain a group of difficulties in division of fractions and, later on, prove of great value in percentage and its applications.

C. E. W.

SYRACUSE, NEW YORK.

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JUNIOR ARITHMETIC.

CHAPTER I.

NOTATION AND NUMERATION.

A Unit is one, or one thing. As 1, 1 orange, \$1.

A Number is one or more units. As 1 apple, 10 men; 25.

The **Unit of a Number** is one of its units.

The unit of 6 is 1; of 6 pecks is 1 peck.

Numbers having the same unit are **Like Numbers**. As 8, 12, 20, unit, 1; 5 men, 8 men, 12 men, unit, 1 man.

A number whose unit is 1 is called an **Abstract Number**. As 24, unit, 1.

A number whose unit names one particular thing is called a **Concrete Number**. As 24 men, unit, 1 man.

An **Integer** is a whole number.

The system of figures or letters used in expressing numbers is called **Notation**.

Arabic Notation is used in expressing numbers by figures. (Illustrate.)

Roman Notation is used in expressing numbers by letters. (Illustrate.)

Numeration is naming the places of figures, and reading numbers. (Illustrate.)

NOTE. — Teach units of *first, second, and third orders*, etc., *simple and local values* of a figure.