

**GREENLEAF'S
MATHEMATICAL SERIES. A
BRIEF COURSE IN ARITHMETIC,
ORAL AND WRITTEN**

Published @ 2017 Trieste Publishing Pty Ltd

ISBN 9780649034253

Greenleaf's Mathematical Series. A Brief Course in Arithmetic, Oral and Written by Benjamin Greenleaf

Except for use in any review, the reproduction or utilisation of this work in whole or in part in any form by any electronic, mechanical or other means, now known or hereafter invented, including xerography, photocopying and recording, or in any information storage or retrieval system, is forbidden without the permission of the publisher, Trieste Publishing Pty Ltd, PO Box 1576 Collingwood, Victoria 3066 Australia.

All rights reserved.

Edited by Trieste Publishing Pty Ltd.
Cover @ 2017

This book is sold subject to the condition that it shall not, by way of trade or otherwise, be lent, re-sold, hired out, or otherwise circulated without the publisher's prior consent in any form or binding or cover other than that in which it is published and without a similar condition including this condition being imposed on the subsequent purchaser.

www.triestepublishing.com

BENJAMIN GREENLEAF

**GREENLEAF'S
MATHEMATICAL SERIES. A
BRIEF COURSE IN ARITHMETIC,
ORAL AND WRITTEN**

Greenleaf's Mathematical Series.

△
BRIEF COURSE
IN
ARITHMETIC,
ORAL AND WRITTEN.

ON THE BASIS OF WORKS

By BENJAMIN GREENLEAF, A.M.

THOS. R. SHEWELL & COMPANY
BOSTON NEW YORK CHICAGO

118.976.421

HARVARD COLLEGE LIBRARY -
GIFT OF THE
GRADUATE SCHOOL OF EDUCATION

GREENLEAF'S

MATHEMATICAL SERIES.



INDUCTIVE COURSE.

FIRST LESSONS IN NUMBERS.

A BRIEF COURSE IN ARITHMETIC.

THE COMPLETE ARITHMETIC.

The BRIEF COURSE and the COMPLETE ARITHMETIC are each published with and without answers.

KEY TO THE COMPLETE ARITHMETIC, for Teachers only



COPYRIGHT, 1881, BY HENRY B. MAGLATHLIN.

COPYRIGHT, 1882, BY HENRY B. MAGLATHLIN.

COPYRIGHT, 1896, BY HENRY B. MAGLATHLIN.



PRESSWORK BY BERWICK & SMITH, NORWOOD, MASS., U.S.A.

PREFACE.

THIS BRIEF COURSE IN ARITHMETIC has been prepared to meet the needs of two classes of learners.

Young pupils who are expected to finish a course of grammar-school study, and who are to be trained in the lower grades to facility and accuracy in the fundamental use of numbers, require training in both oral and written work. While they are not mature enough to comprehend the *theory* and *science* of numbers, they may be especially benefited by much simple *practice*. For them the book furnishes what is desirable, much practical work and little theory.

There are many learners whose circumstances compel them to leave school at an early age. They have little time to spend on definitions and theory, but need practice in the essentials of arithmetic. This work will help such to acquire the ability to use numbers and apply them to the ordinary transactions of life.

The close and constant union of oral and written work, the treatment of decimals, United States money, and denominate numbers in connection with the fundamental rules, and the large number of exercises provided, are among the features that will commend this book to practical teachers.

CONTENTS.

	Page
NOTATION AND NUMERATION	1
ADDITION	10
UNITED STATES MONEY	18
SUBTRACTION.	24
MULTIPLICATION	38
REVIEW	50
DIVISION	54
MISCELLANEOUS.	74
REVIEW	78
ACCOUNTS AND BILLS	86
FRACTIONS	91
REVIEW.	124
DECIMALS	133
REVIEW	145
MEASUREMENTS	148
REVIEW	161
PERCENTAGE	166
INTEREST	174
BUSINESS FORMS	180
PRACTICAL APPLICATIONS	182
ROMAN NUMERALS	188
GENERAL REVIEW	190

A BRIEF COURSE
IN
ARITHMETIC.

NOTATION AND NUMERATION.

1. A **Unit** is a single thing, or one; as one book, one slate.

2. A **Number** is a unit, or a collection of units; as one book, five slates.

3. **Arithmetic** treats of numbers and their use.

4. **Figures** are characters used to express numbers.

5. Ten different figures are used in writing numbers:

Names.	Zero,	One,	Two,	Three,	Four,	Five,	Six,	Seven,	Eight,	Nine.
Figure.	0,	1,	2,	3,	4,	5,	6,	7,	8,	9.

These figures used alone express the number of units shown by their names.

The zero, or cipher, used alone expresses *no* units.

6. To express numbers larger than nine two or more figures are written side by side.

7. A figure used *alone* has only a *simple name* and *value*; but, when used with other figures, it has also a *place-name* and *value*.

8. When *two* figures are used to express a number, the figure in the first, or right-hand, place has the place-name *ones*, and the figure in the second place has the place-name *tens*. Thus,

10 is 1 ten, 0 ones, or ten.

23 is 2 tens, 3 ones, or twenty-three.

46 is 4 tens, 6 ones, or forty-six.

99 is 9 tens, 9 ones, or ninety-nine.

10 ones make 1 ten.

9. When *three* figures are used to express a number, the figure in the third, or left-hand, place has the place-name *hundreds*; the figure in the second place, *tens*; and that in the first, *ones*. Thus,

100 is 1 hundred, 0 tens, 0 ones, or one hundred.

280 is 2 hundreds, 8 tens, 0 ones, or two hundred eighty.

672 is 6 hundreds, 7 tens, 2 ones, or six hundred seventy-two.

948 is 9 hundreds, 4 tens, 8 ones, or nine hundred forty-eight.

10 tens make 1 hundred.

10. When *four* figures are used to express a number, the place-name of the fourth, or left-hand, figure is *thousands*, the place-names of the other three figures being *hundreds*, *tens*, *ones*, as before. Thus,

1000 is 1 thousand, 0 hundred, 0 tens, 0 ones, or one thousand.

2300 is 2 thousand, 3 hundred, 0 tens, 0 ones, or two thousand three hundred.

4560 is 4 thousand, 5 hundred, 6 tens, 0 ones, or four thousand five hundred sixty.

7895 is 7 thousand, 8 hundred, 9 tens, 5 ones, or seven thousand eight hundred ninety-five.

10 hundreds make 1 thousand.

11. EXERCISES.

Read the following numbers:

1.	2.	3.	4.	5.	6.
13	68	121	837	1600	8973
25	79	347	608	2705	8888
63	88	829	700	3492	4004
76	45	305	921	6983	9060
89	91	630	346	4217	3498

Write in figures the following numbers:

- Sixty-four; eighty-seven; twenty-two; ninety.
- Three hundred sixty-two; four hundred eleven.
- Eight hundred ninety; seven hundred eighty-eight.
- Six hundreds, four tens, seven ones.
- Two thousand one hundred twelve.
- Four thousand six hundred eighty-one.
- Eight thousand nine hundred twenty-four.
- Seven thousand seventy-nine.
- Nine thousands, four hundreds, six tens, three ones.

NOTE. The teacher will dictate additional numbers.