A MENTAL ARITHMETIC

Published @ 2017 Trieste Publishing Pty Ltd

ISBN 9780649475537

A Mental Arithmetic by William J. Milne

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

WILLIAM J. MILNE

A MENTAL ARITHMETIC

Trieste

A

MENTAL ARITHMETIC

BY

WILLIAM J. MILNE, PH.D., LL.D.

PRESIDENT OF NEW YORK STATE NORMAL COLLEGE, ALBANY, N.Y.

DEPARTMENT OF EDUCATION
LELAND STANFORD JUNIOR UNIVERSITY

NEW YORK ·:· CINCINNATI ·:· CHICAGO
AMERICAN BOOK COMPANY

613423
C

COPYRIGHT, 1897, BY
AMERICAN BOOK COMPANY

MILNE'S MENTAL ARITH.
E.-P 10

PREFACE

There are many who believe that Mental Arithmetic is one of the most valuable studies in a school curriculum. There can be no doubt that if the subject is properly taught it develops a habit of concentration of mind, which is one of the most desirable ends to be attained by any scheme of education. This habit is not acquired, however, by constantly performing operations with small numbers or by solving many easy problems which require but little mental effort, but rather by working examples of gradually increasing difficulty, until the pupil is enabled *with effort* to solve problems whose solution might seem to be almost impossible, without resort to ciphering. This habit of concentration, when once it has become established, makes the acquisition of knowledge rapid and delightful, and the development of intellectual power noticeably great.

The plan adopted in this book contemplates not only the attainment of this end, but also another object of equal importance, — the development of the reasoning faculty. The problems are arranged upon a pro-

gressive plan, and the pupil is guided by explanations and suggestions until he is able to devise methods of solution for himself. The book thus follows the method of development which has proved so successful in the author's other works.

It will be seen at once that the book is not a collection of easy problems designed to give the student practice in the simple processes of arithmetic, nor is it an exercise book to accompany a work on written arithmetic. It may be used with profit to supplement such a work, and it gives, also, abundant drill in computing; but it constitutes in itself an independent book, furnishing such a thorough course in arithmetic, that it will give to pupils who master it not only more than common skill in computing, and more than ordinary ability in reasoning, but also a firm grasp of the general principles of the science.

W. J. M.

CONTENTS

	PAGE
ADDITION	7
SUBTRACTION	17
MULTIPLICATION	28
DIVISION	36
FRACTIONS	44
DENOMINATE NUMBERS	109
PERCENTAGE	125
MISCELLANEOUS PROBLEMS	150
TABLES OF DENOMINATE NUMBERS	178

MENTAL ARITHMETIC

ADDITION

1. 1. A boy has 2 cents in one pocket and 1 cent in another pocket. How many cents has he?

2. I see 2 birds on a fence and 2 birds on the ground. How many birds do I see?

3. A boy ate 2 apples and had 3 apples left. How many had he at first?

4. George paid 3 cents for his lunch and had 3 cents left. How much had he at first?

5. I walked 4 miles the first hour, and 3 miles the second. How far did I walk in the two hours?

6. An apple cost 3 cents and an orange 5 cents. How much did both cost?

7. Kate paid 5 cents for some ribbon and 4 cents for candy. How much did she pay for both?

8. Mary had 5 books and bought 5 more. How many had she then?

9. There were 6 lilies on one stalk and 5 on another. How many lilies were there on both stalks?

10. In one room there were 5 windows and in another 7. How many were there in both rooms?