

**THOMSON'S NEW MATHEMATICAL  
SERIES. COMPLETE INTELLECTUAL  
ARITHMETIC; ADAPTED TO  
CLASSES IN GRAMMAR SCHOOLS  
AND ACADEMIES**

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**JAMES B. THOMSON**

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THOMSON'S NEW MATHEMATICAL SERIES.

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COMPLETE  
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ADAPTED TO CLASSES IN

GRAMMAR SCHOOLS AND ACADEMIES.

BY

JAMES B. THOMSON, LL. D.,

AUTHOR OF NEW MATHEMATICAL SERIES.

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## P R E F A C E .

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**I**NTELLECTUAL ARITHMETIC has, confessedly, never received that attention in popular education which its importance demands. The distaste for the study, often manifested, is due not so much to the subject itself, as to the manner in which it is presented.

Mental Arithmetic is but another name for Arithmetical Analysis, which is the master-key to the treasury of Mathematics. It unlocks the portals and bids the tyro enter and participate freely in the riches of this matchless science.

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principles are classified, and arranged under appropriate heads in the order of their dependence, a feature which contributes largely to the convenience and value of a text-book for use in the class-room.

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In accordance with the demands of the age, the Metric System of Weights and Measures is introduced and fully explained. Its primary units are illustrated by diagrams, and the meaning of the principal denominations is made familiar, by a series of mental exercises comparing their approximate values with the values of the weights and measures in common use.

The introduction of this system is a new feature in Mental Arithmetic, and it is believed will be regarded by the friends of progress as a step in the right direction.

The work, it is hoped, will meet the wants of teachers in this department, and be instrumental in awakening a deeper interest in this important branch of popular education.

When its principles are thoroughly mastered, the pupil will be in possession of a "Ready Reckoner," always at hand, always reliable, and of universal application.

J. B. THOMSON.

BROOKLYN, July, 1878.



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# INTELLECTUAL ARITHMETIC.

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## CHAPTER I.

### ADDITION.

**Art. 1. Ex. 1.** A man picked 8 pears from one tree, and 7 pears from another: how many pears did he pick from both trees?

*Analysis.*—8 pears and 7 pears are 15 pears. Therefore, he picked 15 pears.

Or, briefly, 8 and 7 are 15. *Ans.* 15 pears.\*

2. If you solve 6 examples on Monday and 9 on Tuesday, how many will you solve in 2 days?

3. Howard had 7 quarts of chestnuts and George 9 quarts: how many quarts had both?

4. One holiday James caught 3 fish, John 9, and Thomas 5: how many did all catch?

5. How many are 5 and 8? 8 and 7? 6 and 9?

6. How many are 8 and 6? 6 and 7? 8 and 9?

7. How many are 4, 5 and 7? 6, 3 and 8?

8. How many are 5, 9 and 4? 7, 5 and 6?

9. How many are 8, 3 and 9? 8, 7 and 9?

10. If a man walks 7 miles in the morning and 8 in the afternoon, how many miles will he walk in a day?

11. A lady paid \$9 for a dress, \$8 for a hat, and \$5 for a collar: what did she pay for all?

\* The pupil is supposed to be familiar with the simple Tables; if not, portions of them should be reviewed daily till they are thoroughly mastered.