

ELEMENTS OF ARITHMETIC

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Elements of Arithmetic by Augustus De Morgan

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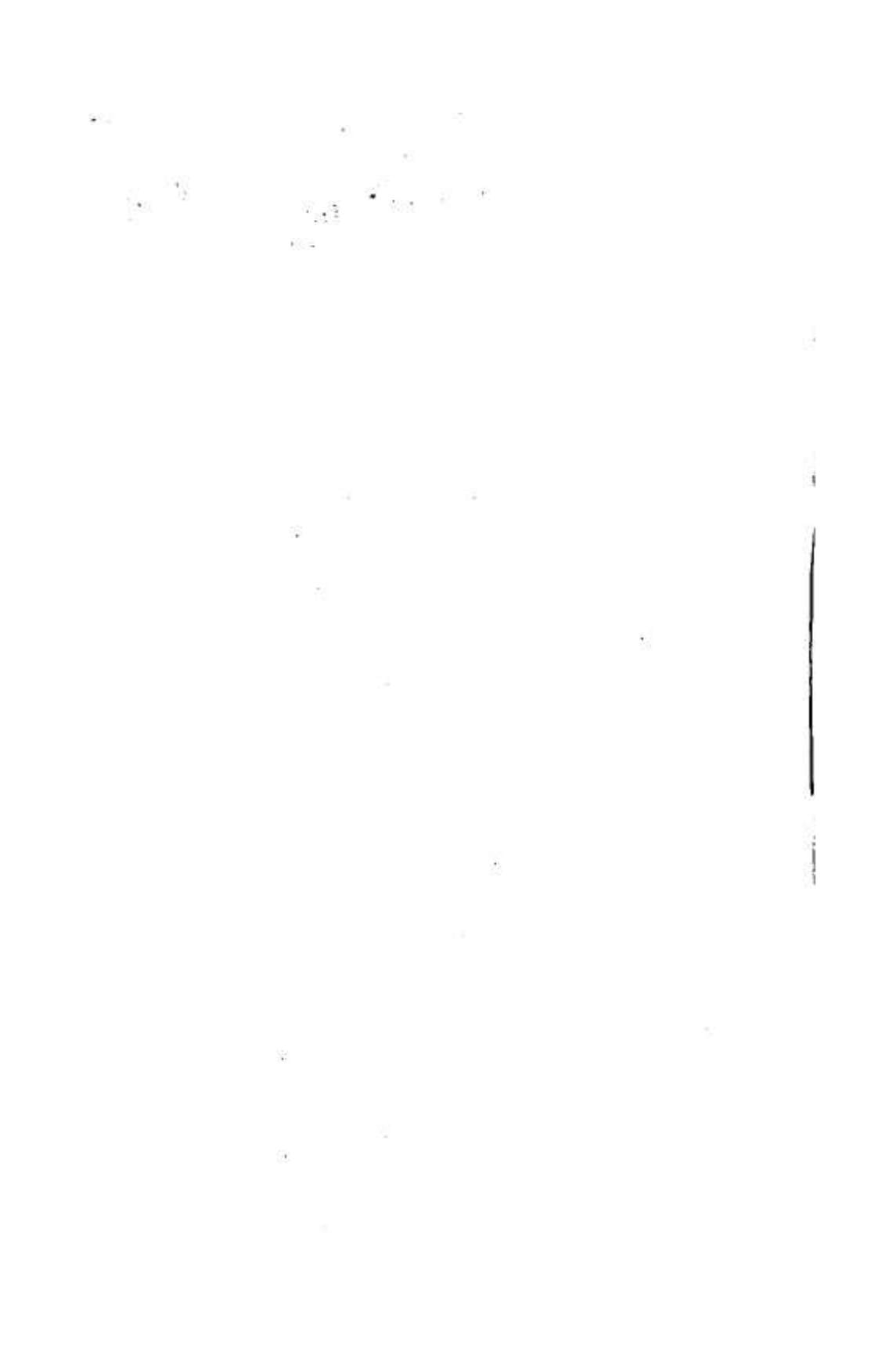
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AUGUSTUS DE MORGAN

**ELEMENTS OF
ARITHMETIC**

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W. W. Campbell

ELEMENTS

OF

ARITHMETIC.

BY

AUGUSTUS DE MORGAN,

OF TRINITY COLLEGE, CAMBRIDGE;

FELLOW OF THE ROYAL ASTRONOMICAL SOCIETY, AND OF THE CAMBRIDGE PHILOSOPHICAL SOCIETY;
PROFESSOR OF MATHEMATICS IN UNIVERSITY COLLEGE, LONDON.

"Hominis studiosi est intelligere, quae utilitates proprie afferat arithmeticae hae, qui solidam et perfectam doctrinam in caeteris philosophiae partibus explicant. Quod enim vulgo dicunt, principium esse dimidium totius, id vel maxime in philosophiae partibus conspicitur."—*MELANCTHON.*

"Ce n'est point par la routine qu'on s'instruit, c'est par sa propre réflexion; et il est essentiel de contracter l'habitude de se rendre raison de ce qu'on fait; cette habitude s'acquiert plus facilement qu'on ne pense; et une fois acquise, elle ne se perd plus."—*CORNILLIAC.*

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PREFACE.

THE preceding editions of this work were published in 1830, 1832, 1835, and 1840. This fifth edition differs from the three preceding, as to the body of the work, in nothing which need prevent the four, or any two of them, from being used together in a class. But it is considerably augmented by the addition of eleven new Appendixes,* relating to matters on which it is most desirable that the advanced student should possess information. The first Appendix, on *Computation*, and the sixth, on *Decimal Money*, should be read and practised by every student with as much attention as any part of the work. The mastery of the rules for instantaneous conversion of the usual fractions of a pound sterling into decimal fractions, gives the possessor the greater part of the advantage which he would derive from the introduction of a decimal coinage.

At the time when this work was first published, the importance of establishing arithmetic in the young mind upon reason and demonstration, was not admitted by many. The case is now altered: schools exist in which rational

* Some separate copies of these Appendixes are printed, for those who may desire to add them to the former editions.

arithmetic is taught, and mere rules are made to do no more than their proper duty. There is no necessity to advocate a change which is actually in progress, as the works which are published every day sufficiently shew. And my principal reason for alluding to the subject here, is merely to warn those who want nothing but routine, that this is not the book for their purpose.

A. DE MORGAN.

London, May 1, 1846.

TABLE OF CONTENTS.



BOOK I.	
SECTION	PAGE
I. Numeration	1
II. Addition and Subtraction	14
III. Multiplication	24
IV. Division	34
V. Fractions	51
VI. Decimal Fractions	65
VII. Square Root	89
VIII. Proportion	100
IX. Permutations and Combinations	118

BOOK II.	
I. Weights and Measures, &c.	124
II. Rule of Three	144
III. Interest, &c.	160

APPENDIX.	
I. On the mode of computing	161
II. On verification by casting out nines and elevens	166
III. On scales of notation	168
IV. On the definition of fractions	171
V. On characteristics	174
VI. On decimal money	176
VII. On the main principle of book-keeping	180
VIII. On the reduction of fractions to others of nearly equal value	190
IX. On some general properties of numbers	193
X. On combinations	201
XI. On Horner's method of solving equations	210
XII. Rules for the application of arithmetic to geometry	217