## PREFACE

IF arithmetic is ever to become a thought study-if pupils are ever to form the desirable habit of studying arithmetical problems carefully and independently before attempting their solutions, all such mental crutches as answers and hints must removed from the backs of text-books. On the other hand, there seems to be a legitimate place for a book embodying answers to such questions as are of a mechanical nature, or are given for the purpose of testing previous progress. The answer to an arithmetical problem, though correct, should not be viewed by the teacher as the most important part of the question. For the teacher, the character of the solution is the main thing; a pupil's method should show a gradual improvement of the reasoning power. It is not to be expected that a child should employ the best method of solving a problem from the first, and it is bad teaching to show such a method to him until he has done all he can in an effort to arrive at this himself.

Morang's Modern Arithmetics have been written in the hope of providing books suitable for class and seat work, which shall be at once simple and scientific. An effort has been made to lead, or at least to accompany the pupil, rather than to drive him. It is hoped that the care taken will manifest itself by the absence of all errors except such as can hardly be avoided in collecting and arranging so many disconnected figures. Should any errors or ambiguities of the texts, not noted in the Hand-book, have still escaped notice, the author and the publisher will be grateful for such information as may lead to their correction.

3