JUNIOR HIGH SCHOOL MATHEMATICS. FIRST COURSE

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Junior High School Mathematics. First Course by William Ledley Vosburgh & Frederick William Gentleman

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WILLIAM LEDLEY VOSBURGH & FREDERICK WILLIAM GENTLEMAN

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JUNIOR HIGH SCHOOL MATHEMATICS

FIRST COURSE

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By William Ledley Vosburgh and Frederick William Gentleman.

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FIRST COURSE

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THE MECHANIC ARTS HIGH SCHOOL, BOSTON

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PREFACE

In planning a course in mathematics for the Junior High School, the authors have kept the following points in mind:

1. That instruction in mathematics in the seventh school year must of necessity begin at the point which the pupil may be assumed to have reached as a result of the training in arithmetic of the first six grades.

2. That the pupil has acquired, during this school period (Grades I–VI), an automatic mastery of certain number facts, a knowledge of the four processes in the field of integers and fractions, and an acquaintance with the facts and relations of the commonly used denominate units.

3. That the course in mathematics in the Junior High School should be of such content that it will bring the pupil in contact with adult activities which lend themselves to mathematical interpretation and afford him an opportunity for the exercise of his mathematical powers.

4. That the course in mathematics should be so administered that the pupil becomes habituated to the standards of the business world; *i.e.* (*a*) the computer must assume the responsibility for the correctness of his computation, (*b*) the computer must always, by check or by estimate, or by both, satisfy himself of the correctness of his work before it leaves his hands.

The attention of teachers is directed to the following features of the book:

1. The nature of the examples in addition, which are especially designed to remedy the pupil's weakness in handling the difficult combinations.

2. The simple forms of checking the work in addition and subtraction.

3. The emphasis placed on the estimate of the result and on rational methods of locating the decimal point in multiplication and division.

4. The early use of the equation as a simple mathematical tool.

5. The natural introduction to the idea of ratio, and the simple development of its use in the solution of analytic problems.

6. The rational development of measurement, and the extension of the decimal idea to this field, by the use of the protractor and decimalized ruler.

7. The interpretation of number data by means of graphs.

8. The revised treatment of the fundamentals of percentage, wherein the idea of *per cent* is first made clear.

9. The restriction of the treatment of percentage to simple direct applications.

10. The application of the equation to formulas of mensuration.

11. The emphasis on reasoning throughout the work in mensuration.

12. The selection of problem material from situations of interest to the child.

13. The presentation of all problem material in the form of direct statements followed by direct questions as to the results required.

WILLIAM TEDLEY VOSBURGH.
FREDERICK WILLIAM GENTLEMAN.

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