JUNIOR HIGH SCHOOL MATHEMATICS. FIRST BOOK

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Junior High School Mathematics. First Book by E. H. Taylor & Fiske Allen

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E. H. TAYLOR & FISKE ALLEN

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JUNIOR
HIGH SCHOOL MATHEMATICS

FIRST BOOK

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PREFACE

THIS is the first of a series of two books in mathematics for the seventh and eighth grades. These books assume that the pupil has mastered the work in arithmetic usually given in the first six grades. They continue the work in arithmetic by drill to obtain speed and accuracy, a study of percentage and its applications in ordinary business and in other everyday affairs, and a study of mensuration. They extend the mathematical content of the course of the seventh and eighth grades by including those parts of elementary algebra and geometry that are adapted to the abilities of the pupils of these grades. This extension is made possible by the omission of the more difficult and technical applications of arithmetic found in the traditional course. It is believed that these books contain enough of algebra and geometry so that a year may be gained in the later course in the high school.

Algebra is approached through the formula which is its most practical aspect for the beginning pupil. Throughout the course the pupil is given practice in stating rules as formulas and formulas as rules until the formula comes to be a natural expression for mathematical truths. Other algebraic notions included are the equation, negative numbers, and the graph. Common geometric notions — angle, perpendicular, triangle, polygon — are introduced and used in constructions and various problems in mensuration. Many of the important theorems of elementary geometry are developed from observation and construction and are used in applied problems. It is believed that the familiarity thus obtained with geometric truths will appreciably shorten

the time needed for formal geometry later in the course. In general, after algebraic and geometric notions have been introduced they are used as often as possible so as to unify the three types of work.

This book for the seventh grade contains (1) much drill in the fundamental operations of arithmetic; (2) practice in the interpretation of problems; (3) exercises in the use of the literal notation in interpreting and evaluating formulas; (4) a study of percentage and its applications to common life as well as to business problems; (5) the study of a considerable number of geometric notions, theorems, and constructions without demonstration.

CONTENTS

CHAPTER I

SOLUTION OF PROBLEMS. REVIEW OF FUNDAMENTAL OPERATIONS

		PAGE
1.	Directions for Solving Problems	1
2.	The Addition Table	5
3.	The Subtraction Table	5
4.	The Multiplication Table	6
5.	The Division Table	7
6.	Exercises for Practice in Addition	9
7.	Cash Accounts	10
8.	Finding Averages	12

CHAPTER II

THE FORMULA. REVIEW OF FRACTIONS

9.	Some Useful Terms	17
10.	Problems without Numbers	18
11.	The Cost Formula	20
12.	Making Formulas	22
13.	Formulas for Practice	26
14.	Reduction of Fractions	28
15.	Exercises for Practice	29
16.	Some New Symbols	32

CHAPTER III

DECIMAL FRACTIONS AND THE METRIC SYSTEM

17.	Reading and Writing Numbers	36
18.	Problems Involving Large Numbers	39
19.	Reduction of Decimal Fractions to Common Fractions	[illegible]

PAGE

20. Multiplication and Division by Powers of 10 . . . 41
21. Multiplication of Decimal Fractions 43
22. Division of Decimal Fractions by Integers . . . 44
23. Reduction of Common Fractions to Decimal Fractions . 44
24. Division by Decimals 45
25. Getting Results to a Desired Degree of Accuracy . . 47
26. Advantages of the Metric System 51
27. Linear Measure 51
28. Square Measure 55
29. Cubic Measure 55
30. Capacity and Weight 56
31. Equivalents 57

CHAPTER IV

PERCENTAGE

32. The Meaning of the Term Per Cent 63
33. Summary 64
34. Changing Per Cents to Decimals 65
35. Important Equivalents 66
36. To Find Any Per Cent of a Number 68
37. A Per Cent More or Less than a Number 71
38. To Reduce Any Common Fraction to Per Cent . . . 73
39. To Find What Per Cent One Number Is of Another . . 74
40. To Find a Number of Which a Certain Per Cent Is Known 77
41. Problems of Food Values 81

CHAPTER V

APPLICATIONS OF PERCENTAGE

42. The Per Cent of Gain or Loss 83
43. To Find the Cost When the Selling Price and the Gain or Loss Per Cent Are Known 85
44. Profit and Loss Formulas 87
45. Meaning of Commercial Discount 89
46. Bills 91
47. Problems of the Dairyman 96

CHAPTER VI

INTEREST

PAGE

48. Meaning of Interest 100
49. Expressing Time as Years 102
50. The Interest Formula 103
51. The Six Per Cent Method 104
52. Interest at Any Given Rate by the Six Per Cent Method . 105
53. Finding the Time between Two Dates 106
54. Promissory Notes 108
55. To Find the Principal, Rate, or Time 110

CHAPTER VII

MEASUREMENT OF LINES

56. Line Segments 113
57. Finding the Sum and the Difference of Line Segments . 115
58. Accuracy in Measuring 117
59. Drawing to Scale 120
60. Representing Numbers by Lines 122
61. Some Definitions 125
62. The Relation between the Circumference and the Diameter of a Circle 127

CHAPTER VIII

ANGLES

63. Meaning of Angle 132
64. Kinds of Angles 134
65. The Sum and the Difference of Angles 136
66. Complementary and Supplementary Angles . . . 136
67. Measuring Angles 137
68. Using the Protractor 139
69. Circular and Angular Measure 141
70. How Longitude Is Measured 142
71. Standard Time 143

CHAPTER IX

TRIANGLES. CONSTRUCTIONS WITH RULER AND COMPASSES

PAGE

72. Definitions 151
73. Classification of Triangles 151
74. Base and Altitude of a Triangle 152
75. The Use of Ruler and Compasses 153
76. To Construct a Triangle with Three Given Sides . . 153
77. At a Given Point in a Given Line to Construct an Angle Equal to a Given Angle 154
78. To Construct a Triangle When Given Two Sides and Their Included Angle 155
79. To Construct a Triangle When Given Two Angles and Their Included Side 156
80. Facts to Be Learned 158
81. The Perpendicular Bisector of a Line 159
82. To Construct the Perpendicular Bisector of a Given Line Segment 159
83. To Erect a Perpendicular to a Line at a Point on the Line 161
84. To Erect a Perpendicular to a Given Line from a Given External Point 161
85. The Distance from a Point to a Line 162
86. To Bisect a Given Angle 162

CHAPTER X

PARALLEL LINES, QUADRILATERALS, AND REGULAR POLYGONS

87. Parallel Lines 165
88. To Construct a Line Parallel to a Given Line through a Given External Point 166
89. Quadrilaterals 167
90. Kinds of Parallelograms 168
91. Base. Altitude. Diagonal 168
92. To Construct a Parallelogram 169
93. Principles concerning Quadrilaterals 170