

CONTENTS

UNIT

- 1 Introduction to "Audio-Tutorial Slide Rule" 1
- Series I
- 2 Terminology of the Slide Rule and C and D Scales 2
- 3 Interpretation of Markings on the C and D Scales 8
- 4 Reading Values on the C and D Scales 12
- 5 Powers of Ten, Scientific Notation, Characteristic System 15
- 6 Introduction to 2-Factor Multiplication and Division Problems 18
- 7 Review and Practice on Solving 2-Factor Problems 29
- 8 Locating the Decimal Point by Approximation 32
- 9 Introduction to 3-Factor Multiplication and Division Problems 36
- 10 Introduction to the Use of the CI Scale in the Solution of 3-Factor Problems 40
- 11 Review and Practice on Solving 3-Factor Problems 50
- 12 Introduction to the Folded Scales CF, DF and CIF 52
- 13 The Folded Scales in the Solution of 3-Factor Problems 62
- 14 Solution of Multifactor Problems 66
- Practice Test for Units 1-14 (Series I) 70

UNIT 1

Series II

15	Introduction to the Trigonometric Scales	71
16	The Sine Function	76
17	The Cosine Function	83
18	The Tangent Function	89
19	Review the Sine, Cosine and Tangent Functions	96
20	Trigonometric Functions in 2-Factor Problems	98
21	The Tangent Function in 2-Factor Problems (Angles Larger Than 45°)	102
22	Right Triangle Solution I (Given the Hypotenuse and an Acute Angle)	107
23	Right Triangle Solution II (Given the Two Sides)	112
24	Right Triangle Solution III (Special Situation When Given the Two Sides)	119
25	Triangle Solution Using the Sine Law	122
26	Review and Practice on Triangle Solution	130
	Practice Test for Units 15–26 (Series II)	132

Series III

27	Introduction to the L Scale	133
28	Introduction to the Log-Log (or LL) Scales	140
29	Finding e^x	144

30	Finding e^{-x}	147
31	Finding e^x and e^{-x} for Large or Small Values of x	
32	Finding Natural Logarithms of Numbers Greater Than 1.0	155
33	Finding Natural Logarithms of Numbers Less Than 1.0	158
34	Review Finding e^x , e^{-x} , $\ln N$	161
35	Natural Logarithms in 2-Factor Problems	166
36	Raising a Positive Number to a Positive Power	170
37	Raising a Positive Number to a Negative Power	178
38	Review Raising a Positive Number to a Positive or Negative Power	183
39	Finding Roots of Positive Numbers	186
40	Review of the Use of the LL Scales	193
	Practice Test for Units 26–40 (Series III)	196
	Series IV	
41	Squaring a Number	197
42	Finding the Square Root of a Number	205
43	Cubing a Number	214
44	Finding the Cube Root of a Number	220
	Practice Final Examination (Units 2–44)	227
45	Unit Conversion	229
	Selected Answers	237