

Contents

PREFACE	vii-viii
I. THEORIES OF LEARNING RELATED TO THE FIELD OF MATHEMATICS	1
Howard F. Fehr, Teachers College, Columbia University, New York City	
II. MOTIVATION FOR EDUCATION IN MATHEMATICS	42
Maurice L. Hartung, University of Chicago, Chicago, Illinois	
III. THE FORMATION OF CONCEPTS	69
Henry Van Engen, State Teachers College, Cedar Falls, Iowa	
IV. SENSORY LEARNING APPLIED TO MATHEMATICS	99
Henry W. Syer, Boston University, Boston, Massachusetts	
V. LANGUAGE IN MATHEMATICS	156
Irvin H. Brune, State Teachers College, Cedar Falls, Iowa	
VI. DRILL—PRACTICE—RECURRING EXPERIENCE	192
Ben A. Sueltz, State Teachers College, Cortland, New York	
VII. TRANSFER OF TRAINING	205
Myron F. Rosskopf, Teachers College, Columbia University, New York City	
VIII. PROBLEM-SOLVING IN MATHEMATICS	228
Kenneth B. Henderson and Robert E. Pingry, University of Illinois, Urbana, Illinois	
IX. PROVISIONS FOR INDIVIDUAL DIFFERENCES	271
Rolland R. Smith, Public Schools, Springfield, Massachusetts	
X. PLANNED INSTRUCTION	303
Irving Allen Dodes, Stuyvesant High School, New York City	
XI. LEARNING THEORY AND THE IMPROVEMENT OF INSTRUCTION—A BALANCED PROGRAM	335
John R. Clark and Howard F. Fehr, Teachers College, Columbia University, New York City	