
CONTENTS

Preface	vii
1 Partition of Whole Numbers: Reasoning with Manipulatives and Computational Experiments.....	1
2 Combinatorial Models: From Trial and Error to Theory.....	21
3 Early Algebra with Kid Pix.....	39
4 Hidden Mathematics of the Multiplication Table.....	51
5 Application of Unit Fractions to Tesselations.....	69
6 Divisibility and Prime Numbers	91
7 Fibonacci Numbers and the Golden Ratio.....	113
8 From Arithmetic Sequences to Polygonal Numbers.....	135
9 The Multiplication Table Revisited.....	159
10 Proof and Proving	171
11 Computational Problem-Solving and Modeling.....	195
12 Numbers and Operations in Different Bases	211
13 Programming Details.....	231
References	245
Appendix: Some Useful Formulas	249