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Nota di contenuto	Contents; Chapter 1 Nurturing Reflective Learners in Mathematics: An Introduction Berinderjeet KAUR; 1 Introduction; 2 Fundamentals for Nurturing Reflective Learners; 3 Instructional Tools for Nurturing Reflective Learners; 4 Approaches to Teaching for Nurturing Reflective Learners; 5 Some Concluding Thoughts; References; Chapter 2 The Neurocognition of Reflection: The Mystery in Learning, the Essence of Teaching, From Mystery to Mastery Frank Chee Tet VOON; 1 Introduction; 2 How Do We Really Learn?; 3 The Two Phases of Understanding and Recall; 4 Neuroanatomy; 5 Neural Pathways 6 Wiring and Firing Together7 The Myelin Sheath; 8 New and Emerging Ideas in Neurocognition; 9 Deep Practice; 10 Neuronal Networks; 11 An Analogy of Learning Paths as Learning New Routes of Travel; 12 An Example of Collaborative Learning; 13 Use of Technology; 14 Neurocognition, Learning and Mastery; 15 Conclusion; Acknowledgements; References; Appendix; Chapter 3 Working with the Whole Psyche: Nurturing Reflective Learners John MASON; 1 Introduction; 2 Approach; 3 Preliminary Tasks; 3.1 Arithmetical relations & properties; 3.2 Recognition11; 4 Interlude on the Structure of the Psyche 5 Mathematical Themes5.1 Doing & undoing additively; 5.2 Doing & undoing unexpectedly; 5.3 Doing & undoing multiplicatively; 5.4

Reflections; 6 Geometry as Context; 6.1 Alternating sums of squares; 6.2 More alternating sums of squares; 6.3 The carpet theorem; 7 Area and Perimeter as Context; 7.1 More or less (perimeter and area); 8 Recognising Types of Numbers as Context; 8.1 Four consecutive sums; 8.2 Consecutive sums; 8.3 One more than the product of four consecutive numbers; 8.4 Sundaram's grid; 8.5 Generalising patterns from 2; 9 Reflection on Nurturing Reflection; References
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Sommario/riassunto

This fifth volume in the series of yearbooks by the Association of Mathematics Educators in Singapore entitled Nurturing Reflective Learners in Mathematics is unique in that it focuses on a single theme in mathematics education. The objective is to encourage teachers and researchers to advance reflection among students and teachers in mathematics classrooms.Several renowned international and Singapore researchers in the field have published their work in this volume. The fifteen chapters of the book illustrate evidence-based practices that school teachers and researchers can experiment with in