

Erickson 978-8861374362

Instruction Manual: Enhancing Mathematical Problem Solving

For the Second Cycle of Primary School

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1. INTRODUCTION AND OVERVIEW

This manual, titled "Solving Problems in 6 Moves: Enhancement of Mathematical Problem Solving for the Second Cycle of Primary School," is a comprehensive resource designed to support the development of mathematical problem-solving abilities in children aged 8-11 years. Authored by Chiara De Candia, Nicoletta Cibinel, and Daniela Lucangeli, it offers a structured and graduated approach to understanding and resolving mathematical problems. The book emphasizes a methodical approach, guiding users through a series of steps to foster critical thinking and logical reasoning. It is an invaluable tool for educators, parents, and professionals seeking to strengthen foundational mathematical skills.

2. TARGET AUDIENCE AND USAGE (SETUP & OPERATING)

This book is primarily intended for:

- **Teachers:** To implement structured problem-solving lessons in the classroom.
- **Parents:** To support their children's mathematical development at home.
- **Specialists:** For intervention and enhancement programs for children with specific learning needs.

2.1. Effective Use of the Manual

To maximize the benefits of this manual, consider the following:

- **Understand the Graduated Approach:** The book progresses from simpler problems (e.g., addition and subtraction) to more complex scenarios, ensuring a gradual learning curve.
- **Focus on Reasoning:** Each problem is accompanied by questions designed to guide the user through the reasoning process, not just the solution. Encourage understanding of *how* to solve, not just *what* the answer is.
- **Utilize Examples and Activities:** The manual is rich in practical examples and activities. These can be adapted to suit individual needs and learning styles.
- **Integrate into Curriculum:** For teachers, integrate the "6 moves" methodology into your existing mathematics curriculum to provide a consistent framework for problem-solving.
- **Encourage Discussion:** Facilitate discussions around the problems and solutions to deepen comprehension and critical thinking.

3. CONTENT STRUCTURE AND KEY AREAS

The manual is structured around a core methodology for problem-solving, likely broken down into six key "moves" or steps. While the specific details of each move are within the book's content, the overall approach aims to enhance:

- **Numerical and Logico-Scientific Cognition:** Developing a strong foundation in numerical understanding and logical reasoning.
- **Geometry:** Applying problem-solving strategies to geometric concepts.
- **Core Problem Solving:** General strategies applicable across various mathematical domains.
- **Mathematics and Magic:** Potentially engaging activities that make mathematics more accessible and enjoyable.

The book includes various types of problems, such as those involving addition and subtraction, fractions, decimals, measurements, and money. It also focuses on comprehension, representation, categorization, planning, execution, and self-assessment of problem-solving processes.

4. CARE AND HANDLING (MAINTENANCE)

To ensure the longevity and usability of your manual:

- Store the book in a dry place, away from direct sunlight and excessive humidity.
- Avoid bending or creasing the covers and pages excessively.
- Use a bookmark instead of folding pages to mark your place.
- Handle with clean hands to prevent stains and smudges.

5. ADDRESSING CHALLENGES (TROUBLESHOOTING)

If students or children encounter difficulties while working through the problems, consider the following approaches:

- **Revisit Foundational Concepts:** Ensure the student has a solid grasp of the prerequisite mathematical concepts before tackling more complex problems.
- **Break Down the Problem:** Guide the student to break down complex problems into smaller, more manageable steps, aligning with the book's structured approach.
- **Encourage Verbalization:** Ask the student to explain their thought process aloud. This can help identify misconceptions or areas of confusion.
- **Utilize Visual Aids:** Draw diagrams or use manipulatives to represent the problem visually, making abstract concepts more concrete.
- **Review Examples:** Refer back to similar solved examples within the book to reinforce the problem-solving methodology.

6. PRODUCT SPECIFICATIONS

Attribute	Detail
Title	Risolvere problemi in 6 mosse. Potenziamento del problem solving matematico per il secondo ciclo della scuola primaria
Authors	Chiara De Candia, Nicoletta Cibinel, Daniela Lucangeli
Publisher	Erickson
Publication Date	April 28, 2009
Language	Italian (Content translated for this manual)
Format	Paperback
ISBN-10	8861374360
ISBN-13	978-8861374362
Print Length	384 pages
Item Weight	1.22 Kilograms
Dimensions	20 x 3.1 x 28.5 cm
Reading Age	From 3 years and up (as per Amazon, but contextually for primary school)

7. SUPPORT AND RESOURCES

For further pedagogical support, additional resources, or inquiries regarding the content of this manual, please refer to the publisher:

- **Publisher:** Erickson
- **Authors:** Chiara De Candia, Nicoletta Cibinel, Daniela Lucangeli
- **Official ISBN-13:** [978-8861374362](#)
- **Related ISBN-10:** [8861374360](#)
- **Additional Resource (from image):** [9788261374368](#) (Please note this ISBN might be a typo or related product, verify with publisher if needed.)

Erickson is a well-known publisher in the field of education and special needs, and their official website or contact channels would be the primary source for direct support related to their publications.

8. PRODUCT IMAGES

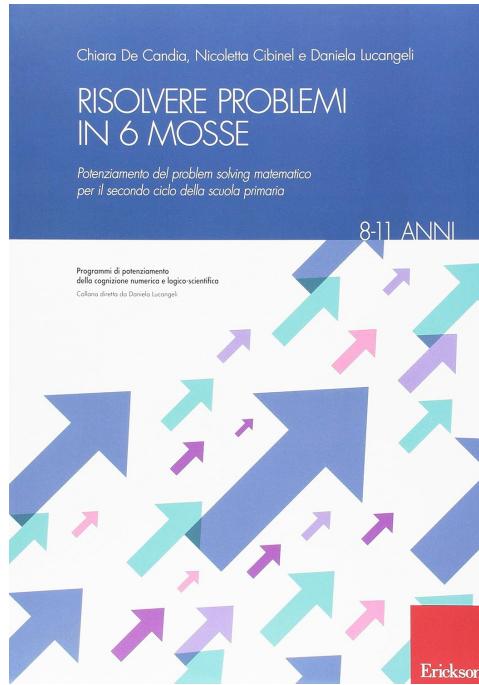


Image 1: Front Cover

This image displays the front cover of the book. It features the title "RISOLVERE PROBLEMI IN 6 MOSSE" (Solving Problems in 6 Moves) and the subtitle "Potenziamento del problem solving matematico per il secondo ciclo della scuola primaria" (Enhancement of mathematical problem solving for the second cycle of primary school). The authors, Chiara De Candia, Nicoletta Cibinel, and Daniela Lucangeli, are listed at the top. The cover design includes a dynamic pattern of arrows pointing in various directions, symbolizing progress and problem-solving pathways. The age range "8-11 ANNI" (8-11 YEARS) is visible on the right side, and the publisher's logo, Erickson, is at the bottom right.

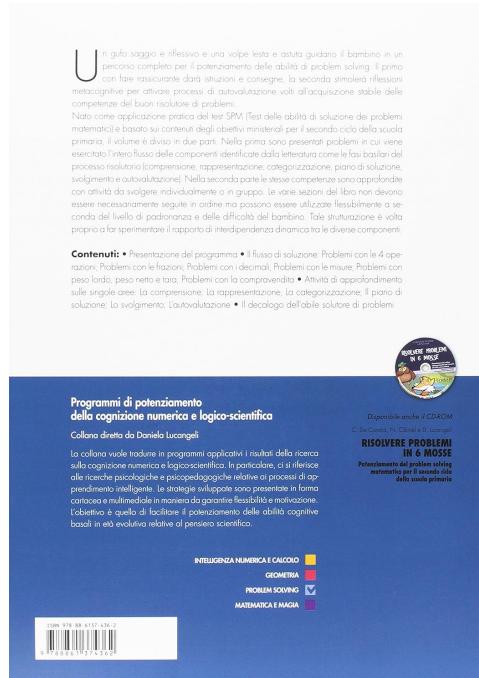


Image 2: Back Cover

This image shows the back cover of the book. It provides a brief description of the book's purpose, highlighting its focus on enhancing numerical and logico-scientific cognition. Key content areas are listed, including "INTELLIGENZA NUMERICA E CALCOLO" (Numerical Intelligence and Calculation), "GEOMETRIA" (Geometry), "PROBLEM SOLVING" (Problem Solving), and "MATEMATICA E MAGIA" (Mathematics and Magic). Information about the accompanying CD-ROM (if applicable) and the ISBN is also visible. The overall design reinforces the educational and practical nature of the manual.

