1. Record Nr. UNINA9910810614703321 Autore Xu Jiagu Titolo Lecture Notes on Mathematical Olympiad Courses [[electronic resource] ]: For Junior Section (In 2 Volumes) - Volume 1 River Edge,: World Scientific Publishing Company, 2009 Pubbl/distr/stampa **ISBN** 1-282-76204-4 9786612762048 981-4293-56-3 Edizione [1st ed.] Descrizione fisica 1 online resource (183 p.) Mathematical Olympiad Series; ; v.6 Collana 510 Disciplina Soggetti Electronic books. -- local International Mathematical Olympiad Mathematics -- Competitions Mathematics -- Problems, exercises, etc Mathematics - General Mathematics Physical Sciences & Mathematics Lingua di pubblicazione Inglese **Formato** Materiale a stampa Monografia Livello bibliografico Note generali Description based upon print version of record. Nota di contenuto Contents: Preface: Acknowledgments: Abbreviations and Notations: Abbreviations: Notations for Numbers, Sets and Logic Relations: 1 Operations on Rational Numbers; 1. Basic Rules on Addition, Subtraction, Multiplication, Division; 2. Rule for Removing Brackets; 3. Ingenious Ways for Calculating; Examples; Testing Questions (A); Testing Questions (B); 2 Monomials and Polynomials; Definitions; Operations on Polynomials; Examples; Testing Questions (A); Testing Questions (B); 3 Linear Equations of Single Variable; Usual Steps for Solving Equations; Examples; Testing Questions (A) Testing Questions (B)4 System of Simultaneous Linear Equations: Examples; Testing Questions (A); Testing Questions (B); 5 Multiplication Formulae; Basic Multiplication Formulae; Generalization of Formulae; Derived Basic Formulae; Examples; Testing Questions (A); Testing

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## Sommario/riassunto

Olympiad mathematics is not a collection of techniques of solving mathematical problems but a system for advancing mathematical education. This book is based on the lecture notes of the mathematical Olympiad training courses conducted by the author in Singapore. Its scope and depth not only covers and exceeds the usual syllabus, but introduces a variety concepts and methods in modern mathematics. In each lecture, the concepts, theories and methods are taken as the core. The examples are served to explain and enrich their intension and to indicate their applications. Besides, appropriate num