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Titolo	Lecture Notes on Mathematical Olympiad Courses [[electronic resource]] : For Junior Section (In 2 Volumes) - Volume 2
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Soggetti	Electronic books. -- local International Mathematical Olympiad Mathematics -- Competitions Mathematics -- Problems, exercises, etc Mathematics - General Mathematics Physical Sciences & Mathematics Electronic books.
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Formato	Materiale a stampa
Livello bibliografico	Monografia
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; 16 Quadratic Surd Expressions and Their Operations; Definitions; Basic Operational Rules on a; Rationalization of Denominators; Examples; Testing Questions (A); Testing Questions (B); 17 Compound Quadratic Surd Formpa ; Basic Methods for Simplifying Compound Surd Forms; Examples; Testing Questions (A); Testing Questions (B); 18 Congruence of Integers; Basic Properties of Congruence; The Units Digit of Powers of Positive Integers an The Last Two digits of some positive integersExamples; Testing Questions (A); Testing Questions (B); 19 Decimal Representation of Integers; Decimal Expansion of Whole Numbers with Same Digits or Periodically Changing Digits; Examples; Testing Questions (A); Testing Questions (B); 20 Perfect Square Numbers; Basic Properties of Perfect

Square Numbers; Examples; Testing Questions (A); Testing Questions (B); 21 Pigeonhole Principle; Basic Forms of Pigeonhole Principle; Examples; Testing Questions (A); Testing Questions (B); 22 x and {x}; Some Basic Properties of x and {x}; Examples
Testing Questions (A)Testing Questions (B); 23 Diophantine Equations (I); Definitions; Examples; Testing Questions (A); Testing Questions (B); 24 Roots and Discriminant of Quadratic Equation ax2 + bx + c = 0; Basic Methods for Finding Roots of ax2 + bx + c = 0; Relation between Discriminant and Existence of Real Roots; Examples; Testing Questions (A); Testing Questions (B); 25 Relation between Roots and Coefficients of Quadratic Equations; Examples; Testing Questions (A); Testing Questions (B); 26 Diophantine Equations (II); Basic Methods for Solving Quadratic Equations on Z; Examples
Testing Questions (A)Testing Questions (B); 27 Linear Inequality and System of Linear Inequalities; Basic Properties of Inequalities; Steps for Solving a Linear Inequality; Examples; Testing Questions (A); Testing Questions (B); 28 Quadratic Inequalities and Fractional Inequalities; Basic Methods for Solving Quadratic Inequalities; Examples; Testing Questions (A); Testing Questions (B); 29 Inequalities with Absolute Values; Basic Methods for Removing Absolute Value Signs; Examples; Testing Questions (A); Testing Questions (B); 30 Geometric Inequalities; Examples; Testing Questions (A)
Testing Questions (B)Solutions to Testing Questions; Solutions to Testing Questions 16; Testing Questions (16-A); Testing Questions (16-B); Solutions to Testing Questions 17; Testing Questions (17-A); Testing Questions (17-B); Solutions to Testing Questions 18; Testing Questions (18-A); Testing Questions (18-B); Solutions to Testing Questions 19; Testing Questions (19-A); Testing Questions (19-B); Solutions to Testing Questions 20; Testing Questions (20-A); Testing Questions (20-B); Solutions to Testing Questions 21; Testing Questions (21-A); Testing Questions (21-B)
Solutions to Testing Questions 22

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

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Titolo	Antimicrobial Coatings and Modifications on Medical Devices / / edited by Zheng Zhang, Victoria E. Wagner
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ISBN	3-319-57494-9
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Descrizione fisica	1 online resource (IX, 273 p. 49 illus., 34 illus. in color.)
Disciplina	620.44
Soggetti	Materials—Surfaces Thin films Pharmaceutical technology Biomedical engineering Surfaces and Interfaces, Thin Films Pharmaceutical Sciences/Technology Biomedical Engineering and Bioengineering
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	Chapter 1. Anti-Microbial Technologies on Critical Care Implants -- Chapter 2 Antimicrobial and Anti-biofilm Medical Devices - Public Health and Regulatory Science Challenges -- Chapter 3 Characterization of bacterial adhesion and biofilm formation -- Chapter 4 Molecular approaches for studying biofilms: techniques, challenges and future prospects -- Chapter 5 Implantable medical devices modified with antimicrobial substances -- Chapter 6 Anti-antimicrobial approaches to device-based infections -- Chapter 7 Releasing antimicrobial agents from porous materials -- Chapter 8 Anti-fouling medical coatings -- Chapter 9 Exploring the potential of light to prevent and treat microbial biofilms in medical and food applications -- Chapter 10 Light-triggered anti-infective surface.
Sommario/riassunto	Based on a fundamental understanding of the interaction between bacteria and materials, this timely volume emphasizes the latest research in the antimicrobial interfacial design and provides an

invaluable blueprint for improving antimicrobial performance on devices and products. Antimicrobial Coatings and Modifications targets reduction of microbial accumulation on biomedical and industrial materials through changing interfacial characteristics. Applying a viable antimicrobial coating or modification to resist alarming threats is a highly demanding requirement for many medical and engineering applications. Many contemporary books in the area of antimicrobial solution focus on applying antimicrobial agents or materials that can kill bacteria. The volume pays more attention to eliminating bacterial contamination and biofilm formation through surface characteristics and novel technologies with minimized bacterial resistance and environmental impact.