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Titolo	An Excursion through Elementary Mathematics, Volume II : Euclidean Geometry // by Antonio Caminha Muniz Neto
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Descrizione fisica	1 online resource (XI, 550 p. 411 illus.)
Collana	Problem Books in Mathematics, , 0941-3502
Disciplina	516.1
Soggetti	Convex geometry Discrete geometry Polytopes Geometry, Projective Convex and Discrete Geometry Projective Geometry
Lingua di pubblicazione	Inglese
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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Chapter 01- Basic Geometric Concepts -- Chapter 02- Congruence of Triangles -- Chapter 03- Loci in the Plane -- Chapter 04- Proportionality and Similarity -- Chapter 05- Area of Plane Figures -- Chapter 06- The Cartesian Method -- Chapter 07- Trigonometry and Geometry -- Chapter 08- Vectors in the Plane -- Chapter 09- A First Glimpse on Projective Techniques -- Chapter 10- Basic Concepts in Solid Geometry -- Chapter 11- Some Simple Solids -- Chapter 12- Convex Polyhedra -- Chapter 13- Volume of Solids -- Chapter 14- Hints and Solutions.
Sommario/riassunto	This book provides a comprehensive, in-depth overview of elementary mathematics as explored in Mathematical Olympiads around the world. It expands on topics usually encountered in high school and could even be used as preparation for a first-semester undergraduate course. This second volume covers Plane Geometry, Trigonometry, Space Geometry, Vectors in the Plane, Solids and much more. As part of a collection, the book differs from other publications in this field by not being a mere selection of questions or a set of tips and tricks that applies to specific

problems. It starts from the most basic theoretical principles, without being either too general or too axiomatic. Examples and problems are discussed only if they are helpful as applications of the theory.

Propositions are proved in detail and subsequently applied to Olympic problems or to other problems at the Olympic level. The book also explores some of the hardest problems presented at National and International Mathematics Olympiads, as well as many essential theorems related to the content. An extensive Appendix offering hints on or full solutions for all difficult problems rounds out the book.

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