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Autore	Meskens Ad
Titolo	Exploring Classical Greek Construction Problems with Interactive Geometry Software // by Ad Meskens, Paul Tytgat
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Descrizione fisica	1 online resource (XII, 185 p. 160 illus., 10 illus. in color.)
Collana	Compact Textbooks in Mathematics, , 2296-4568
Disciplina	510
Soggetti	Geometry Mathematics History Mathematics—Study and teaching History of Mathematical Sciences Mathematics Education
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	1 Introduction -- 2 The Genesis of Geometry -- 3 Straightedge and compass constructions -- 4 The Delian Problem -- 5 Trisecting an angle -- 6 Squaring the circle -- 7 Constructible numbers -- 8 The Cinderella of regular polygons -- Afterthoughts -- Solutions -- Index.
Sommario/riassunto	In this book the classical Greek construction problems are explored in a didactical, enquiry based fashion using Interactive Geometry Software. The book traces the history of these problems, stating them in modern terminology. By focusing on constructions and the use of GeoGebra the reader is confronted with the same problems that ancient mathematicians once faced. The reader can step into the footsteps of Euclid, Viète and Cusanus amongst others and then by experimenting and discovering geometric relationships far exceed their accomplishments. Exploring these problems with the neusis-method lets him discover a class of interesting curves. By experimenting he will gain a deeper understanding of how mathematics is created. More than 100 exercises guide him through methods which were developed to try and solve the problems. The exercises are at the level of undergraduate

students and only require knowledge of elementary Euclidean geometry and pre-calculus algebra. It is especially well-suited for those students who are thinking of becoming a mathematics teacher and for mathematics teachers.
