

1. Record Nr.	UNINA9910450960003321
Autore	Friberg Joran
Titolo	Amazing traces of a Babylonian origin in Greek mathematics [[electronic resource] /] / Joran Friberg
Pubbl/distr/stampa	Hackensack, N.J. ; ; London, : World Scientific, c2007
ISBN	1-281-12135-5 9786611121358 981-270-884-7
Descrizione fisica	1 online resource (497 p.)
Disciplina	510.938
Soggetti	Mathematics, Greek Mathematics, Babylonian Electronic books.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Preface; Contents; 1. Elements II and Babylonian Metric Algebra; 2. El. I. 47 and the Old Babylonian Diagonal Rule; 3. Lemma El. X.28/29 1a, Plimpton 322, and Babylonian igi-igi.bi Problems; 4. Lemma El. X. 32/33 and an Old Babylonian Geometric Progression; 5. Elements X and Babylonian Metric Algebra; 6. Elements IV and Old Babylonian Figures Within Figures; 7. El. VI.30, XIII.1-12, and Regular Polygons in Babylonian Mathematics; 8. El. XIII.13-18 and Regular Polyhedrons in Babylonian Mathematics; 9. Elements XII and Pyramids and Cones in Babylonian Mathematics 10. El. I.43-44, El. VI.24-29, Data 57-59, 84-86, and Metric Algebra11. Euclid's Lost Book On Divisions and Babylonian Striped Figures; 12. Hippocrates' Lunes and Babylonian Figures with Curved Boundaries; 13. Traces of Babylonian Metric Algebra in the Arithmetica of Diophantus; 14. Heron's, Ptolemy's, and Brahmagupta's Area and Diagonal Rules; 15. Theon of Smyrna's Side and Diagonal Numbers and Ascending Infinite Chains of Birectangles; 16. Greek and Babylonian Square Side Approximations; 17. Theodorus of Cyrene's Irrationality Proof and Descending Infinite Chains of Birectangles 18. The Pseudo-Heronic GeometricaAppendix 1. A Chain of Trapezoids

with Fixed Diagonals; Appendix 2. A Catalog of Babylonian Geometric Figures; Index of Texts, Propositions, and Lemmas; Index of Subjects; Bibliography; Comparative Mesopotamian, Egyptian, and Babylonian Timelines

Sommario/riassunto

A sequel to *Unexpected Links Between Egyptian and Babylonian Mathematics* (World Scientific, 2005), this book is based on the author's intensive and ground breaking studies of the long history of Mesopotamian mathematics, from the late 4th to the late 1st millennium BC. It is argued in the book that several of the most famous Greek mathematicians appear to have been familiar with various aspects of Babylonian "metric algebra," a convenient name for an elaborate combination of geometry, metrology, and quadratic equations that is known from both Babylonian and pre-Babylonian mathematical clay tablets.
