1.	Record Nr.	UNINA9910795045003321
	Autore	Fine Benjamin
	Titolo	Algebra and number theory : a selection of highlights / / Benjamin Fine [and four others]
	Pubbl/distr/stampa	Berlin, [Germany] ; ; Boston, [Massachusetts] : , : De Gruyter, , 2017 ©2017
	ISBN	3-11-051626-8 3-11-051614-4
	Descrizione fisica	1 online resource (332 pages) : illustrations
	Collana	De Gruyter Textbook
	Disciplina	512.9
	Soggetti	Algebra Number theory
	Lingua di pubblicazione	Inglese
	Formato	Materiale a stampa
	Livello bibliografico	Monografia
	Nota di bibliografia	Includes bibliographical references and index.
	Nota di contenuto	Frontmatter -- Preface -- Contents -- 1. The natural, integral and rational numbers -- 2. Division and factorization in the integers -- 3. Modular arithmetic -- 4. Exceptional numbers -- 5. Pythagorean triples and sums of squares -- 6. Polynomials and unique factorization -- 7. Field extensions and splitting fields -- 8. Permutations and symmetric polynomials -- 9. Real numbers -- 10. The complex numbers, the Fundamental Theorem of Algebra and polynomial equations -- 11. Quadratic number fields and Pell's equation -- 12. Transcendental numbers and the numbers e and -- 13. Compass and straightedge constructions and the classical problems -- 14. Euclidean vector spaces -- Bibliography -- Index
	Sommario/riassunto	This two-volume set collects and presents some fundamentals of mathematics in an entertaining and performing manner. The present volume examines many of the most important basic results in algebra and number theory, along with their proofs, and also their history. ContentsThe natural, integral and rational numbersDivision and factorization in the integersModular arithmeticExceptional numbersPythagorean triples and sums of squaresPolynomials and unique factorizationField extensions and splitting fieldsPermutations and symmetric polynomialsReal numbersThe complex numbers, the

Fundamental Theorem of Algebra and polynomial equationsQuadratic number fields and Pell's equationTranscendental numbers and the numbers e and Compass and straightedge constructions and the classical problemsEuclidean vector spaces