1.	Record Nr.	UNINA9910254309103321
	Autore	Caminha Muniz Neto Antonio
	Titolo	An Excursion through Elementary Mathematics, Volume I : Real Numbers and Functions / / by Antonio Caminha Muniz Neto
	Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2017
	ISBN	3-319-53871-3
	Edizione	[1st ed. 2017.]
	Descrizione fisica	1 online resource (XIII, 652 p. 73 illus.)
	Collana	Problem Books in Mathematics, , 0941-3502
	Disciplina	512.786
	Soggetti	Functions of real variables
		Algebra
		Matrix theory
		Real Functions
		General Algebraic Systems
		Linear and Multilinear Algebras, Matrix Theory
	Lingua di pubblicazione	Inglese
	Formato	Materiale a stampa
	Livello bibliografico	Monografia
	Nota di bibliografia	Includes bibliographical references and index.
	Nota di contenuto	Chapter 1 The Set of Real Numbers -- Chapter 2 Algebraic Identities, Equations and Systems -- Chapter 3 Elementary Sequences -- Chapter 4 Induction and the Binomial Formula -- Chapter 5 Elementary Inequalities -- Chapter 6 The Concept of Function -- Chapter 7 More on Real Numbers -- Chapter 8 Continuous Functions -- Chapter 9 Limits and Derivatives -- Chapter 10 Riemann's Integral -- Chapter 11 Series of Functions -- Bibliography -- Appendix A Glossary -- Appendix B 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 first volume covers Real Numbers, Functions, Real Analysis, Systems of Equations, Limits and Derivatives, 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.

2.	Record Nr.	UNINA9910298341903321
	Autore	Roshchina Victoria V
	Titolo	Model Systems to Study the Excretory Function of Higher Plants / / by Victoria V. Roshchina
	Pubbl/distr/stampa	Dordrecht : , : Springer Netherlands : , : Imprint : Springer, , 2014
	ISBN	94-017-8786-7
	Edizione	[1st ed. 2014.]
	Descrizione fisica	1 online resource (213 p.)
	Disciplina	570 571.2 580 581.7
	Soggetti	Plant physiology Plant ecology Plant science Botany Plant Physiology Plant Ecology Plant Sciences
	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 indexes.
	Nota di contenuto	Preface -- Introduction -- 1. Approaches to Choice of Model Systems for Microscopic Studies -- 2. Intact Secretory Cells as Models – Acceptors Sensitive to Secretory Products -- 3. Models – Acceptors of Secretions and their Reactions on Exometabolites -- 4. Modeling of

Sommario/riassunto	Biological models are known as living systems needed for experimental studies. On similar objects one could analyze characteristics, features, and laws of biological processes occurred in real complex organisms, but also clearly seen in more simple living systems, better suitable for experimental studies. In fundamental studies of plant excretory function various simple model systems also may be used. Modeling of processes is one of the experimental approaches to study mechanisms of intercellular signaling in chemical communication of organisms. Not much we know about cellular models can be used in vital regime without fixation and vivisection. That is why similar model systems are of our interest today. Plant model systems suitable for vital microscopic analysis of excretory function studied by the author the last 15 years are represented in this monograph. Attention is paid to new cellular models that permit to estimate the accumulation and release of the secretions, their biological effects, including signaling and contacts with other cells.