

1. Record Nr.	UNINA9910254070803321
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Titolo	Methods of Solving Sequence and Series Problems [[electronic resource] /] / by Ellina Grigorieva
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Birkhäuser, , 2016
ISBN	3-319-45686-5
Edizione	[1st ed. 2016.]
Descrizione fisica	1 online resource (XX, 281 p. 46 illus., 25 illus. in color.)
Disciplina	515.24
Soggetti	Sequences (Mathematics) Mathematics—Study and teaching Sequences, Series, Summability Mathematics Education
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Preface -- Introduction to Sequences and Series -- Further Study of Sequences and Series -- Series Convergence Theorems and Applications -- Real Life Applications of Geometric and Arithmetic Sequences -- Homework.
Sommario/riassunto	This book aims to dispel the mystery and fear experienced by students surrounding sequences, series, convergence, and their applications. The author, an accomplished female mathematician, achieves this by taking a problem solving approach, starting with fascinating problems and solving them step by step with clear explanations and illuminating diagrams. The reader will find the problems interesting, unusual, and fun, yet solved with the rigor expected in a competition. Some problems are taken directly from mathematics competitions, with the name and year of the exam provided for reference. Proof techniques are emphasized, with a variety of methods presented. The text aims to expand the mind of the reader by often presenting multiple ways to attack the same problem, as well as drawing connections with different fields of mathematics. Intuitive and visual arguments are presented alongside technical proofs to provide a well-rounded methodology. With nearly 300 problems including hints, answers, and solutions, Methods of Solving Sequences and Series Problems is an ideal resource

for those learning calculus, preparing for mathematics competitions, or just looking for a worthwhile challenge. It can also be used by faculty who are looking for interesting and insightful problems that are not commonly found in other textbooks. .
