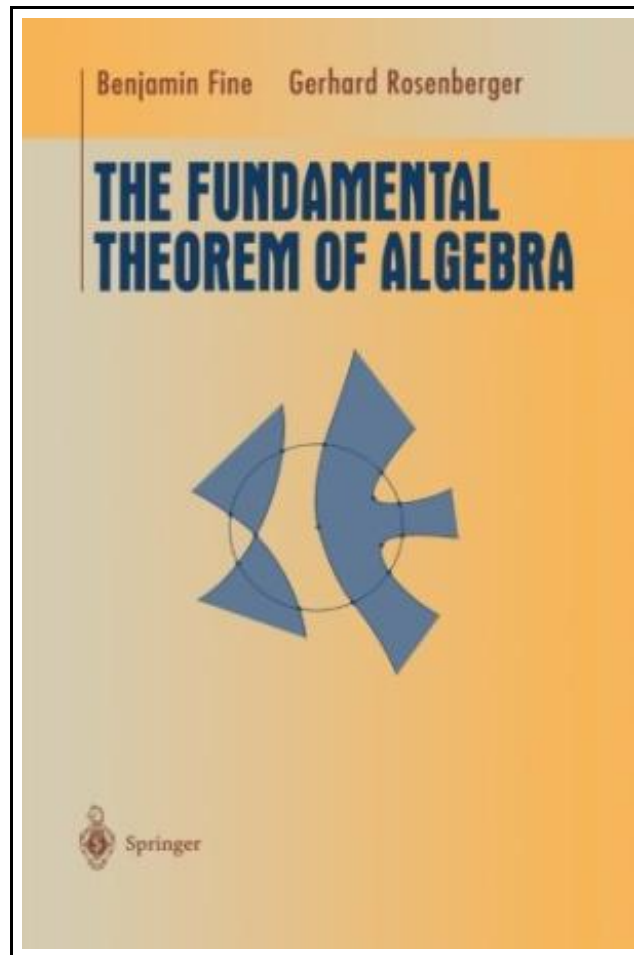


## The Fundamental Theorem of Algebra



Filesize: 8.62 MB

### ***Reviews***

*These types of book is the greatest ebook readily available. I was able to comprehend every little thing using this published e pdf. I realized this pdf from my dad and i encouraged this publication to discover.*

***(Dr. Porter Mitchell)***

## THE FUNDAMENTAL THEOREM OF ALGEBRA



To download **The Fundamental Theorem of Algebra** eBook, remember to follow the web link below and download the file or gain access to other information which are have conjunction with THE FUNDAMENTAL THEOREM OF ALGEBRA ebook.

Book Condition: New. Publisher/Verlag: Springer, Berlin | The fundamental theorem of algebra states that any complex polynomial must have a complex root. This book examines three pairs of proofs of the theorem from three different areas of mathematics: abstract algebra, complex analysis and topology. The first proof in each pair is fairly straightforward and depends only on what could be considered elementary mathematics. However, each of these first proofs leads to more general results from which the fundamental theorem can be deduced as a direct consequence. These general results constitute the second proof in each pair. To arrive at each of the proofs, enough of the general theory of each relevant area is developed to understand the proof. In addition to the proofs and techniques themselves, many applications such as the unsolvability of the quintic and the transcendence of  $e$  and  $\pi$  are presented. Finally, a series of appendices give six additional proofs including a version of Gauss's original first proof. The book is intended for junior/senior level undergraduate mathematics students or first year graduate students, and would make an ideal "capstone" course in mathematics. | 1 Introduction and Historical Remarks.- 2 Complex Numbers.- 2.1 Fields and the Real Field.- 2.2 The Complex Number Field.- 2.3 Geometrical Representation of Complex Numbers.- 2.4 Polar Form and Euler's Identity.- 2.5 DeMoivre's Theorem for Powers and Roots.- Exercises.- 3 Polynomials and Complex Polynomials.- 3.1 The Ring of Polynomials over a Field.- 3.2 Divisibility and Unique Factorization of Polynomials.- 3.3 Roots of Polynomials and Factorization.- 3.4 Real and Complex Polynomials.- 3.5 The Fundamental Theorem of Algebra: Proof One.- 3.6 Some Consequences of the Fundamental Theorem.- Exercises.- 4 Complex Analysis and Analytic Functions.- 4.1 Complex Functions and Analyticity.- 4.2 The Cauchy-Riemann Equations.- 4.3 Conformal Mappings and Analyticity.- Exercises.- 5 Complex Integration and Cauchy's Theorem.- 5.1 Line...



[Read The Fundamental Theorem of Algebra Online](#)



[Download PDF The Fundamental Theorem of Algebra](#)

## See Also



**[PDF] Edge] the collection stacks of children's literature: Chunhyang Qiuyun 1.2 --- Children's Literature 2004(Chinese Edition)**

Follow the web link beneath to download "Edge] the collection stacks of children's literature: Chunhyang Qiuyun 1.2 --- Children's Literature 2004(Chinese Edition)" document.

[Download eBook »](#)



**[PDF] Genuine book Oriental fertile new version of the famous primary school enrollment program: the intellectual development of pre-school Jiang(Chinese Edition)**

Follow the web link beneath to download "Genuine book Oriental fertile new version of the famous primary school enrollment program: the intellectual development of pre-school Jiang(Chinese Edition)" document.

[Download eBook »](#)



**[PDF] Readers Clubhouse Set a Nick is Sick**

Follow the web link beneath to download "Readers Clubhouse Set a Nick is Sick" document.

[Download eBook »](#)



**[PDF] Readers Clubhouse Set B Time to Open**

Follow the web link beneath to download "Readers Clubhouse Set B Time to Open" document.

[Download eBook »](#)



**[PDF] The First Epistle of H. N. a Crying-Voyce of the Holye Spirit of Loue. Translated Out of Base-Almayne Into English. (1574)**

Follow the web link beneath to download "The First Epistle of H. N. a Crying-Voyce of the Holye Spirit of Loue. Translated Out of Base-Almayne Into English. (1574)" document.

[Download eBook »](#)



**[PDF] Learn the Nautical Rules of the Road: An Expert Guide to the COLREGs for All Yachtsmen and Mariners**

Follow the web link beneath to download "Learn the Nautical Rules of the Road: An Expert Guide to the COLREGs for All Yachtsmen and Mariners" document.

[Download eBook »](#)