第一图书网, tushu007.com

<<不等式>>

图书基本信息

书名：<<不等式>>

13位ISBN编号：9787506266062

10位ISBN编号：7506266067

出版时间：2004-4

出版时间：世界图书出版公司

作者：G.Hardy J.E.Littlewood G.Polya

页数：324

版权说明：本站所提供下载的PDF图书仅提供预览和简介，请支持正版图书。

更多资源请访问：http://www.tushu007.com

第一图书网, tushu007.com

<<不等式>>

内容概要

It is often really difficult to trace the origin of a familiar inequality. It is quite likely to occur first as an auxiliary proposition, often without explicit statement, in a memoir on geometry or astronomy; it may have been rediscovered, many years later, by half a dozen different authors; and no accessible statement of it may be quite complete. We have almost always found, even with the most famous inequalities, that we have a little new to add. We have done our best to be accurate and have given all references we can, but we have never undertaken systematic bibliographical research. We follow the common practice, when a particular inequality is habitually associated with a particular mathematician's name; we speak of the inequalities of Schwarz, HSlder, and Jensen, though all these inequalities can be traced further back; and we do not enumerate explicitly all the minor additions which are necessary for absolute completeness. We have received a great deal of assistance from friends. Messrs G. A. Bliss, L. S. Bosanquet, R. Courant, B. Jessen, V. Levin, R. Rado, I. Schur, L. C. Young, and A. Zygmund have all helped us with criticisms or original contributions. Dr Bosanquet, Dr Jessen, and Prof. Zygmund have read tho proofs, and corrected many inaccuracies. In particular, Chapter III has been very largely rewritten as the result of Dr Jessen's suggestions. We hope that the book may now be reasonably free from error, in spite of the mass of detail which it contains.

第一图书网, tushu007.com

<<不等式>>

书籍目录

CHAPTER I INTRODUCTION 1.1 Finite,infinite,and integral inequalities 1.2 Notations 1.3 Positive inequalities 1.4 Homogeneous inequalities 1.5 The axiomatic basis of algebraic inequalities 1.6 Comparable functions 1.7 Selection of proofs 1.8 Selection of subjectsCHAPTER II ELEMENTARY MEAN VALUES 2.1 Ordinary means 2.2 Weighted means 2.3 Limiting cases of a 2.4 Cauchy's inequality 2.5 The theorem of the arithmetic and geometric means 2.6 Other proofs of the theorem of the means 2.7 Holder's inequality and its extensions 2.8 Holder's inequality and its extensions cont 2.9 General properties of the means a 2.10 The sums r a 2.11 Minkowski's inequality 2.12 A companion to Minkowski's inequality 2.13 Illustrations and applications of the fundamental inequalities 2.14 Inductive proofs of the fundamental inequalities 2.15 Elementary inequalities connected with Theorem 37 2.16 Elementary proof of Theorem 3 2.17 Tchebyehef's inequality 2.18 Muirhead's theorem 2.19 Proof of Muirhead's theorem 2.20 An alternative theorem 2.21 Further theorems on symmetrical means 2.22 The elementary symmetric functions of n positive numbers 2.23 A note on definite forms 2.24 A theorem concerning strictly positive forms Miscellaneous theorems and examplesCHAPTER III MEAN VALUES WITH AN ARBITRARY FUNCTION AND THE THEORY OF CONVEX FUNCTIONS 3.1 Definitions 3.2 Equivalent means 3.3 A characteristic property of the means 3.4 Comparability 3.5 Convex functions 3.6 Continuous convex functions 3.7 An alternative definition 3.8 Equality in the fundamental inequalities 3.9 Restatements and extensions of Theorem 85 3.10 Twice differentiable convex functions 3.11 Applieations of the properties of twice differentiable convex functions 3.12 Convex functions of several variables 3.13 Generalisations of Holder""s inequality 3.14 Some theorems concerning monotonic functions 3.15 Sums with an arbitrary function: generalisa. tions of Jensen""s inequality 3.16 Generalisations of Minkowski""s inequality 3.17 Comparison of sets 3.18 Fur ther general properties of convex functions 3.19 Further properties of continuous convex functions 3.20 Discontinuous convex functions Miscellaneous theorems and examples ……CHAPTERIV VARIOUS APPLICATIONS OF THE CALCULUS CHAPTER V INFINITE SERIES CHAPTERVI INTEGRALSCHAPTERVII SOME APPLICATIONS OF THE CALCULUS OF VARIATIONS CHARTERVIII SOME THEOREMS CONCERNING BILINEAR AND MULTILINEAR FORMSCHAPTERIX HILBERT'S INEQUALITY AND ITS ANALOGUES AND EXTENSIONS CHAPTER X REARRANGEMENTSAPPENDIX I On strictly positive formsAPPENDIX II Thorin's proof and extension of Theorem 295 APPENDIXIII On Hilbert's inequality BIBLIOGRAPHY

第一图书网, tushu007.com

版权说明

本站所提供下载的PDF图书仅提供预览和简介，请支持正版图书。

更多资源请访问:http://www.tushu007.com