

<<高等数学基础>>

图书基本信息

书名：<<高等数学基础>>

13位ISBN编号：9787040154849

10位ISBN编号：7040154846

出版时间：2005-1

出版范围：高等教育

作者：马知恩等[著]

页数：390

字数：470000

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>

前言

In order to improve the English level of students in China and to make use of successful teaching experiences in Western countries , universities in China have begun to use bilingual teaching in classrooms . To accomodate this , Eng . 1ish language textbooks are

## 内容概要

The aim of this book is to meet the requirements of teaching Calculus in English or in bilin-gual education according to the customs of teaching and the present domestic conditions. It is divided into two volumes. The first volume contains Calculus of single variable, simple differential equations, infinite series, and the second volume contains the rest. The selection of the contents is in accordance with the fundamental requirements of teaching issued by the Ministry of Education of China, and is based on the accomplishments of reform in teaching during the past ten years. The arrangement and explanation of the main contents in this book are approximately the same as the published Chinese version with the same title and edited in chief by the first two authors. It may help readers to understand the mathematics and to improve the level of their English by reading one of them and using the other one as a reference. This book may be used as a textbook for undergraduate students in the science and engi-neering schools whose majors are not mathematics, and may also be suitable to the readers at the same level.

## 书籍目录

Introduction  
 Chapter 1 Theoretical Basis of Calculus  
 1.1 Sets and Functions  
 1.1.1 Sets and their operations  
 1.1.2 Concepts of mappings and functions  
 1.1.3 Composition of mappings and composition of functions  
 1.1.4 Inverse mappings and inverse functions  
 1.1.5 Elementary functions and hyperbolic functions  
 1.1.6 Some examples for modelling of functions in practical problems  
 Exercises 1.1  
 1.2 Limit of Sequence  
 1.2.1 Concept of limit of a sequence  
 1.2.2 Conditions for convergence of a sequence  
 1.2.3 Rules of operations on convergent sequences  
 Exercises 1.2  
 1.3 Limit of Function  
 1.3.1 The concept of limit of a function  
 1.3.2 The properties and operation rules of functional limits  
 1.3.3 Two important limits  
 Exercises 1.3  
 1.4 Infinitesimal and Infinite Quantities  
 1.4.1 Infinitesimal quantities and their order  
 1.4.2 Equivalence transformations of infinitesimals  
 1.4.3 Infinite quantities  
 Exercises 1.4  
 1.5 Continuous Functions  
 1.5.1 The concept of continuous function and classification of discontinuous points  
 1.5.2 Operations on continuous functions and the continuity of elementary functions  
 1.5.3 Properties of continuous functions on a closed interval  
 Exercises 1.5  
 Chapter 2 The Differential Calculus and Its Applications  
 2.1 Concept of Derivatives  
 2.1.1 Definition of derivatives  
 2.1.2 Relationship between derivability and continuity  
 2.1.3 Some examples of derivative problems in science and technology  
 Exercises 2.1  
 2.2 Fundamental Derivation Rules  
 2.2.1 Derivation rules for sum, difference, product and quotient of functions  
 2.2.2 Derivation rule for composite functions  
 2.2.3 The derivative of an inverse function  
 2.2.4 Higher-order derivatives  
 Exercises 2.2  
 2.3 Derivation of Implicit Functions and Functions Defined by Parametric Equations  
 2.3.1 Method of derivation of implicit functions  
 2.3.2 Method of derivation of a function defined by parametric equations  
 2.3.3 Related rates of change  
 Exercises 2.3  
 2.4 The Differential  
 2.4.1 Concept of the differential  
 2.4.2 Geometric meaning of the differential  
 2.4.3 Rules of operations on differentials  
 .....  
 Chapter 3 The Integral Calculus and Its Applications  
 Chapter 4 Infinite Series  
 Appendix: Answers and Hints for Exercises

章节摘录

插图：

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>