

图书基本信息

书名：<<微积分及其在商业经济生命科学及社会科学中的应用>>

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前言

在我国已经加入WTO、经济全球化的今天，为适应当前我国高校各类创新人才培养的需要，大力推进教育部倡导的双语教学，配合教育部实施的“高等学校教学质量与教学改革工程”和“精品课程”建设的需要，高等教育出版社有计划、大规模地开展了海外优秀数学类系列教材的引进工作。

高等教育出版社和Pearson Education, John Wiley & Sons, McGraw-Hill, Thomson Learning等国外出版公司进行了广泛接触，经国外出版公司的推荐并在国内专家的协助下，提交引进版权总数100余种。

收到样书后，我们聘请了国内高校一线教师、专家、学者参与这些原版教材的评介工作，并参考国内相关专业的课程设计和教学实际情况，从中遴选出了这套优秀教材组织出版。

这批教材普遍具有以下特点：（1）基本上是近3年出版的，在国际上被广泛使用，在同类教材中具有相当的权威性；（2）高版次，历经多年教学实践检验，内容翔实准确、反映时代要求；（3）各种教学资源配套整齐，为师生提供了极大的便利；（4）插图精美、丰富，图文并茂，与正文相辅相成；（5）语言简练、流畅、可读性强，比较适合非英语国家的学生阅读。

本系列丛中，有Finney、Weir等编的《托马斯微积分》（第10版，Pearson），其特色可用“呈传统特色、富革新精神”概括，本书自20世纪50年代第1版以来，平均每四五年就有一个新版面世，长达50余年始终盛行于西方教坛，作者既有相当高的学术水平，又热爱教学，长期工作在教学第一线，其中，年近90的G.B.Thomas教授长年在MIT工作，具有丰富的教学经验；Finney教授也在MIT工作达10年；Weir是美国数学建模竞赛委员会主任。

Stewart编的立体化教材（《微积分》（第5版，Thomson Learning）配备了丰富的教学资源，是国际上最畅销的微积分原版教材，2003年全球销量约40余万册，在美国，占据了约50%~60%的微积分教材市场，其用户包括耶鲁等名牌院校及众多一般院校。

本系列丛书还包括Anton编的经典教材《线性代数及其应用》（第8版，Wiley）；Jay L.Devore编的优秀教材《概率论与数理统计》（第5版，Thomson Learning）等。

在努力降低引进教材售价方面，高等教育出版社做了大量和细致的工作，这套引进的教材体现了一定的权威性、系统性、先进性和经济性等特点。

通过影印、翻译、编译这批优秀教材，我们一方面要不断地分析、学习、消化吸收国外优秀教材的长处，吸取国外出版公司的制作经验，提升我们自编教材的立体化配套标准，使我国高校教材建设水平上一个新的台阶；与此同时，我们还将尝试组织海外作者和国内作者合编外文版基础课数学教材，并约请国内专家改编部分国外优秀教材，以适应我国实际教学环境。

这套教材出版后，我们将结合各高校的双语教学计划，开展大规模的宣传、培训工作，及时地将本套丛书推荐给高校使用。

在使用过程中，我们衷心希望广大高校教师和同学提出宝贵的意见和建议。

内容概要

《微积分及其在商业经济生命科学及社会科学中的应用（第9版影印版）》从Pearson出版公司引进，是一本优秀经典教材。

《微积分及其在商业经济生命科学及社会科学中的应用（第9版影印版）》从图形、数值、解析式和文字语言的不同角度讲解主要概念，并强调应用背景。

《微积分及其在商业经济生命科学及社会科学中的应用（第9版影印版）》配备了较为丰富的习题，包括一些思考题供讨论，文中有提醒学生注意的重要内容标记，以及启发学生学习兴趣的数学史的传记；在概念的引入上较有特色，不强调解题技巧。

《微积分及其在商业经济生命科学及社会科学中的应用（第9版影印版）》内容包括：初等函数，微分，图形和最值，导数，积分，积分的几个专题，多重积分，三角函数的导数与微分等等。

此书用英语编写了微积分在商业、经济、生命科学及社会科学中的应用，并参考国内相关专业的课程设计和教学实际情况，结合各高校的双语教学，是一本实用性很强的教材。

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章节摘录

1 . I FunCtions1 . 2 Elementary Functions : Graphs and Transformations1 . 3 Linear Functions and Straight Lines1 . 4 Quadratic FunctionsImportant Terms and SymbolsReview ExerciseGroup Activity 1 : Introduction to Regression Analysis . Group Activity 2 : Mathematical Modeling in BusinessINTRODUCTIONThe function concept is one of the most important ideas in mathematics . The study of mathematics beyond the elementary level requires a firm understanding of a basic list of elementary functions , their properties , and their graphs . See the inside front cover of this book for a list of the functions that form our library of elementary functions . Most functions in the list will be introduced to you by the end of Chapter 2 and should become a part of your mathematical toolbox for use in this and most future courses or activities that involve mathematics . A few more elementary functions may be added to these in other courses , but the functions listed inside the front cover are more than sufficient for all the applications in this text . Functions

□ CARTESIAN COORDINATE SYSTEM □ GRAPHING : POINT-BY-POINT □ DEFINITION OF A FUNCTION □ FUNCTIONS SPECIFIED BY EQUATIONS □ FUNCTION NOTATION □ APPLICATIONS

After a brief review of the Cartesian (rectangular) coordinate system in the plane and point-by-point graphing , we discuss the concept of function , one of the most important ideas in mathematics .

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