

# **Commerce Maths Pack**

#### **Edition:**

Publication date:	2019
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ISBN:	9781485105404
Format:	Soft Cover
Number of Pages:	437
Retail price:	R803.00 (incl. VAT, excl.
delivery.)	
Website Link:	<u>juta.co.za/pdf/25929/</u>



## About this Publication:

This value bundle, fundamental for first-year accountancy and commerce students, provides an introduction to fundamentals of financial mathematics, as well as exercises and questions covering topics in Differential and Integral Calculus, Matrix Algebra and Linear Programming. *Financial Mathematics* 2e begins with a discussion of simple and compound interest and then establishes the important concepts of effective and equivalent effective interest rates. Subsequent chapters discuss the applications of annuities to practical problems regarding the saving of money and repayment of loans. The notion of using net present value and internal rate of return to distinguish between two different investment opportunities is presented. The concluding chapters of the book take a brief look at the use of differential and integral calculus in financial mathematics. Each chapter includes numerous worked examples that are solved with the aid of a financial calculator where applicable.

Selected Questions in Mathematics for Business, Finance and Economics 3e aims to develop student competency in using mathematical techniques as a "toolbox" for the solution of problems relevant to Economics, Business and Finance. The book provides an introductory revision chapter of basic mathematical principles followed by chapters of multiple-choice questions each covering a particular section of the work. In addition to multiple-choice questions, there are extension tutorials requiring written responses and sample tests covering each section of the work. Answers are provided to each question at the back of the book together with a formula sheet for easy reference.

### **Contents Include:**

## Financial Mathematics: A Computational Approach 2e:

- Chapter 1: Simple and Compound Interest
- Chapter 2: Nominal, Effective and Equivalent Effective Interest Rates
- Chapter 3: Applications of Simple and Compound Interest
- Chapter 4: Annuities
- Chapter 5: Applications of Annuities to Savings I
- Chapter 6: Applications of Annuities to Savings II
- Chapter 7: Applications of Annuities to Loans I
- Chapter 8: Applications of Annuities to Loans II
- Chapter 9: Newton's Method
- Chapter 10: Cash Flow
- Chapter 11: Continuous Compounding and Continuous Money Flow
- Appendix A: Derivation of the Formula for Growing Annuities
- Appendix B: Derivation of the Formulas for Balance Outstanding
- Appendix C: Derivation of the Formula for Continuous Compounding
  Contents Selected Questions in Mathematics for Business, Finance and Economics 3e:
- School Revision Page
- R1. Review of Algebra 1
- R2. Review of Equations 3
- R3. Review of Functions 6
- Chapter 1: Mathematical Modelling
- Chapter 2: Introduction to Calculus
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- Extension Tutorials
- Sample Tests
- Answers
- Answers to Questions
- Answers to Extension Tutorials
- Answers to Sample Tests
- Formula Sheet

### Of Interest and Benefit to:

First year accountancy and commerce students.