

Engineering Mathematics John Bird 6th Edition

Newnes Engineering Mathematics Pocket Book is a uniquely versatile and practical tool for a wide range of engineers and students. All the essentials of engineering mathematics are covered, with clear explanations of key methods, and worked examples to illustrate them. Numerous tables and diagrams are provided, along with all the formulae you could need. The emphasis throughout the book is on providing the practical tools needed to solve mathematical problems quickly in engineering contexts. John Bird's presentation of this core material puts all the answers at your fingertips. The contents of this book have been carefully matched to the latest Further and Higher Education syllabuses so that it can also be used as a revision guide or a quick-access source of underpinning knowledge. Students on competence-based courses such as NVQs will find this approach particularly refreshing and practical. This book and its companion title Newnes Engineering Science Pocket Book provide the underpinning knowledge for the whole range of engineering communities catered for by the Newnes Pocket Book series. These related titles include: Newnes Mechanical Engineer's Pocket Book (Roger Timings) Newnes Electrical Pocket Book (E.A. Reeves) Newnes Electronic Engineer's Pocket Book (Joe Carr & Keith Brindley) Newnes Radio and RF Engineer's Pocket Book (Joe Carr & John Davies) Newnes Telecommunications Engineer's Pocket Book (Steve Winder) The contents of this book have been carefully matched to the latest Further and Higher Education syllabuses so that it can also be used as a revision guide or a quick-access reference source of underpinning knowledge. Students on competence-based courses such as NVQs will find this approach

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particularly refreshing and practical. Previous editions of Newnes Engineering Mathematics Pocket Book were published under the title Newnes Mathematics Pocket Book for Engineers.

Introductory mathematics written specifically for students new to engineering Now in its sixth edition, Basic Engineering Mathematics is an established textbook that has helped thousands of students to succeed in their exams. John Bird's approach is based on worked examples and interactive problems. This makes it ideal for students from a wide range of academic backgrounds as the student can work through the material at their own pace. Mathematical theories are explained in a straightforward manner, being supported by practical engineering examples and applications in order to ensure that readers can relate theory to practice. The extensive and thorough topic coverage makes this an ideal text for introductory level engineering courses. This title is supported by a companion website with resources for both students and lecturers, including lists of essential formulae, multiple choice tests, full solutions for all 1,600 further questions contained within the practice exercises, and biographical information on the 25 famous mathematicians and engineers referenced throughout the book. The companion website for this title can be accessed from www.routledge.com/cw/bird

Now in its ninth edition, Bird's Engineering Mathematics has helped thousands of students to succeed in their exams. Mathematical theories are explained in a straightforward manner, supported by practical engineering examples and applications to ensure that readers can relate theory to practice. Some 1,300 engineering situations/problems have been 'flagged-up' to help demonstrate that engineering cannot be fully understood without a good knowledge of mathematics. The extensive and thorough topic coverage

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makes this a great text for a range of level 2 and 3 engineering courses – such as for aeronautical, construction, electrical, electronic, mechanical, manufacturing engineering and vehicle technology – including for BTEC First, National and Diploma syllabuses, City & Guilds Technician Certificate and Diploma syllabuses, and even for GCSE and A-level revision. Its companion website at www.routledge.com/cw/bird provides resources for both students and lecturers, including full solutions for all 2,000 further questions, lists of essential formulae, multiple-choice tests, and illustrations, as well as full solutions to revision tests for course instructors.

Zeitreise ins Mittelalter: Eine andere Betrachtung der Kreuzzüge In seinem Monumentalwerk rückt Thomas Asbridge die Geschichte der Kreuzzüge zwischen dem 11. und 13. Jahrhundert in ein neues Licht: Denn im Gegensatz zur gängigen Vorstellung war dies keineswegs ein unvermeidlicher Kampf des Westens gegen den Orient. So erzählt der britische Historiker erstmals gleichberechtigt von den von Christen und Muslimen verübten Grausamkeiten und erduldeten Leiden. Auf Basis einer Vielzahl von Quellen entfaltet der Mittelalterexperte ein gewaltiges Panorama, das sowohl die politischen als auch die religiösen Motive aller Seiten beleuchtet. Dabei rekonstruiert er die Brutalität der Kämpfe und spürt den militärischen Strategien von Feldherren wie Sultan Saladin und Richard Löwenherz nach. Asbridge schildert nicht nur überraschend friedliche Begegnungen zwischen Kreuzfahrern und Sarazenen, sondern erzählt auch von Gesten der Freundschaft und der religiösen Toleranz über die feindlichen Lager hinweg. Eine Darstellung, die neue Maßstäbe setzt.

A wide range of courses have an intake that requires a basic, easy introduction to the key maths topics for engineering - Basic Engineering Mathematics is designed to fulfil that need.

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Unlike most engineering maths texts, this book does not assume a firm grasp of GCSE maths, yet unlike low-level general maths texts the content is tailored for the needs of engineers. The result is a unique text written for engineering students, but which takes a starting point below GCSE level. The textbook is therefore ideal for students of a wide range of abilities, and especially for those who find the theoretical side of mathematics difficult. John Bird's approach is based on numerous worked examples, supported by 525 worked problems and followed by 925 further problems. The content has been designed to match current level 2 courses, including Intermediate GNVQ and the new specifications for BTEC First. Level 3 students who struggle with their maths will also find this book particularly useful. With this in mind, all topics within the compulsory units of the AVCE (Applied Mathematics for Engineering) and the new specifications for BTEC National (Mathematics for Technicians) are covered.

Lecturers' support materials: Throughout the book Assignments are provided that are ideal for use as tests or homework. These are the only problems where answers are not provided in the book. Full worked solutions are available to lecturers only as a free download from the Newnes website: www.newnespress.com

- * Unique in being written for engineering students but taking a starting point below GCSE level
- * Coverage fully matched to the requirements of the core units of the new BTEC First and BTEC National specifications
- * Ideal for a wide range of Level 2 courses including City & Guilds certificates and EMTA/EAL NVQs

Er war 25 Jahre lang Journalist, dann stand er von einem Tag auf den anderen auf der Straße: Dan Lyons wurde mit 52 Jahren einfach aus dem Team wegrationalisiert. Was also tun? Da kam das Jobangebot von HubSpot, einem Bostoner Start-up, genau richtig: Sie bieten dem altgedienten Journalisten einen Stapel Aktien für den nicht näher

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bestimmten Job des »Marketingtypen«. Was soll da schon schiefgehen? Doch es kommt, wie es bei der Konstellation kommen muss: Schnell wird klar, dass bei seinem Job bei HubSpot ungefähr alles schief läuft, was schief laufen kann. Seine Kollegen sind im Schnitt halb so alt, statt Bürostühlen gibt es Sitzbälle, Spam wird als »liebender Marketingcontent« bezeichnet und überhaupt erinnert die Atmosphäre bei HubSpot eher an einen immerwährenden Kindergeburtstag. Dass das nicht lange gutgehen kann, ist vorprogrammiert ... Dieses Buch bietet einzigartige Einblicke in die Start-up-Welt!

Unlike most engineering maths texts, this book does not assume a firm grasp of GCSE maths, and unlike low-level general maths texts, the content is tailored specifically for the needs of engineers. The result is a unique book written for engineering students, which takes a starting point below GCSE level. Basic Engineering Mathematics is therefore ideal for students of a wide range of abilities, and especially for those who find the theoretical side of mathematics difficult. All students taking vocational engineering courses who require fundamental knowledge of mathematics for engineering and do not have prior knowledge beyond basic school mathematics, will find this book essential reading. The content has been designed primarily to meet the needs of students studying Level 2 courses, including GCSE Engineering and Intermediate GNVQ, and is matched to BTEC First specifications. However Level 3 students will also find this text to be a useful resource for getting to grips with the essential mathematics concepts needed for their study, as the compulsory topics required in BTEC National and AVCE / A Level courses are also addressed. The fourth edition incorporates new material on adding waveforms, graphs with logarithmic scales, and inequalities – key topics needed for GCSE and Level 2 study. John Bird's approach is

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based on numerous worked examples, supported by 600 worked problems, followed by 1050 further problems within exercises included throughout the text. In addition, 15 Assignments are included at regular intervals. Ideal for use as tests or homework, full solutions to the Assignments are supplied in the accompanying Instructor's Manual, available as a free download for lecturers from <http://textbooks.elsevier.com>.

This Book is part 6 of the series of Books with Title Mathematics by me. I make use of Sympy, Python, Qualculate!!, ZeGrapher, SageMath/Octave, Cantor and KmPlot to demonstrate how software can be used to aid the understanding of Maths. My books are divided into six parts. Parts 1 to 5 are core mathematics concepts and part 6 is application of programming languages to aid the understanding of mathematics. My intention is to build thinking ability in the students at young age(18-22 years). To parents, I make no promise that your kids will score better in the exams by referring my books. Yes I would be contributing to your kids thinking abilities in little way possible. Before reading this Book you must understand the basics of Python Programming. "Programming in Python 3" by Mark Summerfield is a good place to start. You may also want to refer "Doing Math with Python" by Amit Saha which is a great Book. Sympy docs and respective Books on the Tools mentioned in this Book are of immense help. The content in this Book may not help in curriculum score in any way. But it will help you later in real world. Purchase of Book is greatest investment that you can do in 18-22 age group. What can a be better investment than purchasing the Books such as Engineering Mathematics by Croft, Davison, Hargreaves and Flint or Comprehensive Mathematics by John Bird . My generation was not having privilege of reading such great Authors. But you have that privilege. You also have a

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privilege of reading Great Authors of Sage Book, Gregory V. Bard and P.Zimmerman et al. How this Book differs from the Book of Croft et al or John Bird? My Book demonstrates the application of software in understanding the Mathematics. There are totally 6 parts. This is Part 6

Now in its seventh edition, Bird's Electrical and Electronic Principles and Technology introduces and covers theory through detailed examples and laboratory experiments, enabling students to gain knowledge required by technicians in fields such as engineering, electronics, and telecommunications. This edition includes several new sections, including glass batteries, climate change, the future of electricity production, and discussions concerning everyday aspects of electricity, such as watts and lumens, electrical safety, AC vs DC, and trending technologies. The extensive and thorough topic coverage makes this a great text for a range of level 2 and 3 engineering courses, which has helped thousands of students succeed in their exams. It is also suitable for BTEC First, National and Diploma syllabuses, City & Guilds Technician Certificate and Diploma syllabuses, and Foundation Degrees in engineering. Its companion website at www.routledge.com/cw/bird provides resources for both students and lecturers, including full solutions for all 900 further questions, lists of essential formulae, multiple-choice tests and illustrations, as well as full solutions to revision tests and lab experiments for course instructors.

Now in its seventh edition, Bird's Electrical Circuit Theory and Technology explains electrical circuit theory and associated technology topics in a straightforward manner, supported by practical engineering examples and applications to ensure that readers can relate theory to practice. The extensive and thorough coverage, containing over 800 worked examples, makes this an excellent text for a range of courses, in particular for Degree and Foundation Degree in

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electrical principles, circuit theory, telecommunications, and electrical technology. The text includes some essential mathematics revision, together with all the essential electrical and electronic principles for BTEC National and Diploma syllabuses and City & Guilds Technician Certificate and Diploma syllabuses in engineering. This material will be a great revision for those on higher courses. This edition includes several new sections, including glass batteries, climate change, the future of electricity production, and discussions concerning everyday aspects of electricity, such as watts and lumens, electrical safety, AC vs DC, and trending technologies. Its companion website at www.routledge.com/cw/bird provides resources for both students and lecturers, including full solutions for all 1400 further questions, multiple choice questions, lists of essential formulae and bios of famous engineers; as well as full solutions to revision tests, lab experiments, and illustrations for adopting course instructors.

Studying engineering, whether it is mechanical, electrical or civil, relies heavily on an understanding of mathematics. This textbook clearly demonstrates the relevance of mathematical principles and shows how to apply them in real-life engineering problems. It deliberately starts at an elementary level so that students who are starting from a low knowledge base will be able to quickly get up to the level required. Students who have not studied mathematics for some time will find this an excellent refresher. Each chapter starts with the basics before gently increasing in complexity. A full outline of essential definitions, formulae, laws and procedures is presented, before real world practical situations and problem solving demonstrate how the theory is applied. Focusing on learning through practice, it contains simple explanations, supported by 1600 worked problems and over 3600 further problems contained within 384 exercises

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throughout the text. In addition, 35 Revision tests together with 9 Multiple-choice tests are included at regular intervals for further strengthening of knowledge. An interactive companion website provides material for students and lecturers, including detailed solutions to all 3600 further problems.

Dieses Buch ist eine umfassende Einführung in die klassischen Lösungsmethoden partieller Differentialgleichungen. Es wendet sich an Leser mit Kenntnissen aus einem viersemestrigen Grundstudium der Mathematik (und Physik) und legt seinen Schwerpunkt auf die explizite Darstellung der Lösungen. Es ist deshalb besonders auch für Anwender (Physiker, Ingenieure) sowie für Nichtspezialisten, die die Methoden der mathematischen Physik kennenlernen wollen, interessant. Durch die große Anzahl von Beispielen und Übungsaufgaben eignet es sich gut zum Gebrauch neben Vorlesungen sowie zum Selbststudium.

Now in its eighth edition, Bird's Basic Engineering Mathematics has helped thousands of students to succeed in their exams. Mathematical theories are explained in a straightforward manner, supported by practical engineering examples and applications to ensure that readers can relate theory to practice. Some 1,000 engineering situations/problems have been 'flagged-up' to help demonstrate that engineering cannot be fully understood without a good knowledge of mathematics. The extensive and thorough coverage makes this a great text for introductory level engineering courses – such as for aeronautical, construction, electrical, electronic, mechanical, manufacturing engineering and vehicle technology – including for BTEC

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First, National and Diploma syllabuses, City & Guilds Technician Certificate and Diploma syllabuses, and even for GCSE revision. Its companion website provides extra materials for students and lecturers, including full solutions for all 1,700 further questions, lists of essential formulae, multiple choice tests, and illustrations, as well as full solutions to revision tests for course instructors. A practical introduction to the core mathematics required for engineering study and practice Now in its seventh edition, Engineering Mathematics is an established textbook that has helped thousands of students to succeed in their exams. John Bird's approach is based on worked examples and interactive problems. This makes it ideal for students from a wide range of academic backgrounds as the student can work through the material at their own pace. Mathematical theories are explained in a straightforward manner, being supported by practical engineering examples and applications in order to ensure that readers can relate theory to practice. The extensive and thorough topic coverage makes this an ideal text for a range of Level 2 and 3 engineering courses. This title is supported by a companion website with resources for both students and lecturers, including lists of essential formulae, multiple choice tests, full solutions for all 1,800 further questions contained within the practice exercises, and biographical information on the 24 famous mathematicians and engineers referenced throughout the book. The companion website for this title can be accessed from www.routledge.com/cw/bird Mathematics is a key element in determining success for the Edexcel BTEC National Engineering courses.

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Updated for the 2010 BTEC Nationals in Engineering syllabus, Engineering Mathematics, 6e by John Bird covers the main elements of mathematics in the core, mechanical and Electrical/ Electronic Units. There are currently over 13,000 BTEC National Engineering students in the UK. Theory is introduced in each chapter by a simple outline of essential definitions, formulae, laws and procedures. This new, sixth edition will also be supported with online tutor support materials. These include an Inst.

Raymond LeBaron, der reiche amerikanische Verleger, bricht mit seinem Luftschiff auf, um das Wrack der »Cyclop« zu entdecken, in dem sich eine unermesslich wertvolle Inka-Statue befinden soll. Eine Woche später ist er verschollen, an Bord des Luftschiffs sind nur noch drei namenlose Leichen. Major Pitt von der Meeresbehörde NUMA übernimmt die Ermittlungen – und erkennt bald, dass weit mehr dahinter steckt als eine Schatzsuche ...

A practical introduction to the core mathematics principles required at higher engineering level John Bird's approach to mathematics, based on numerous worked examples and interactive problems, is ideal for vocational students that require an advanced textbook. Theory is kept to a minimum, with the emphasis firmly placed on problem-solving skills, making this a thoroughly practical introduction to the advanced mathematics engineering that students need to master. The extensive and thorough topic coverage makes this an ideal text for upper level vocational courses. Now in its seventh edition, Engineering Mathematics has helped

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thousands of students to succeed in their exams. The new edition includes a section at the start of each chapter to explain why the content is important and how it relates to real life. It is also supported by a fully updated companion website with resources for both students and lecturers. It has full solutions to all 1900 further questions contained in the 269 practice exercises. An introduction to core mathematics required for engineering study includes multiple-choice questions and answers, worked problems, formulae, and exercises. In this edition the material has been ordered into the following twelve convenient categories: number and algebra, geometry and trigonometry, matrices and determinants, vector geometry, differential calculus, integral calculus, differential equations, statistics and probability, Laplace transforms and Fourier series. New material has been added on log-arithmetic and exponential functions, binary, octal and hexadecimal, vectors and methods of adding alternating waveforms. Another feature is that a free Internet download is available of a sample (over 1100) of the further problems contained in the book. The primary aim of the material in this text is to provide the fundamental analytical and underpinning knowledge and techniques needed to successfully complete scientific and engineering principles modules of Degree, Foundation Degree and Higher National Engineering programmes. The material has been

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designed to enable students to use techniques learned for the analysis, modelling and solution of realistic engineering problems at Degree and Higher National level. It also aims to provide some of the more advanced knowledge required for those wishing to pursue careers in mechanical engineering, aeronautical engineering, electronics, communications engineering, systems engineering and all variants of control engineering. In Higher Engineering Mathematics 6th Edition, the theory is introduced in each chapter by a full outline of essential definitions, formulae, laws, procedures etc. The theory is kept to a minimum, for problem solving is extensively used to establish and exemplify the theory. It is intended that readers will gain real understanding through seeing problems solved and then through solving similar problems themselves. Access to software packages such as Maple, Mathematica and Derive, or a graphics calculator, will enhance understanding of some of the topics in this text. Each topic considered in the text is presented in a way that assumes in the reader only knowledge attained in BTEC National Certificate/Diploma, or similar, in an Engineering discipline. 'Higher Engineering Mathematics 6th Edition' provides a follow-up to 'Engineering Mathematics 6th Edition'. This textbook contains some 900 worked problems, followed by over 1760 further problems (with answers), arranged within 238

Exercises. Some 432 line diagrams further enhance understanding. A sample of worked solutions to over 1100 of the further problems has been prepared and can be accessed free via the Internet (see next page). At the end of the text, a list of Essential Formulae is included for convenience of reference. At intervals throughout the text are some 19 Revision Tests (plus two more in the website chapters) to check understanding. For example, Revision Test 1 covers the material in Chapters 1 to 4, Revision Test 2 covers the material in Chapters 5 to 7, Revision Test 3 covers the material in Chapters 8 to 10, and so on. An Instructor's Manual, containing full solutions to the Revision Tests, is available free to lecturers adopting this text (see next page). Due to restriction of extent, five chapters that appeared in the fifth edition have been removed from the text and placed on the website. For chapters on Inequalities, Boolean algebra and logic circuits, Sampling and estimation theories, Significance testing and Chi-square and distribution-free tests (see next page). 'Learning by example' is at the heart of 'Higher Engineering Mathematics 6th Edition'. Now in its ninth edition, Bird's Higher Engineering Mathematics has helped thousands of students to succeed in their exams. Mathematical theories are explained in a straightforward manner, supported by practical engineering examples and applications to ensure that readers can relate theory to practice.

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Some 1,200 engineering situations/problems have been 'flagged-up' to help demonstrate that engineering cannot be fully understood without a good knowledge of mathematics. The extensive and thorough topic coverage makes this an ideal text for undergraduate degree courses, foundation degrees, and for higher-level vocational courses such as Higher National Certificate and Diploma courses in engineering disciplines. Its companion website at www.routledge.com/cw/bird provides resources for both students and lecturers, including full solutions for all 2,100 further questions, lists of essential formulae, multiple-choice tests, and illustrations, as well as full solutions to revision tests for course instructors.

A practical introduction to the engineering science and mathematics required for engineering study and practice. Science and Mathematics for Engineering is an introductory textbook that assumes no prior background in engineering. This new edition covers the fundamental scientific knowledge that all trainee engineers must acquire in order to pass their examinations and has been brought fully in line with the compulsory science and mathematics units in the new engineering course specifications. A new chapter covers present and future ways of generating electricity, an important topic. John Bird focuses upon engineering examples, enabling students to develop a sound understanding of

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engineering systems in terms of the basic laws and principles. This book includes over 580 worked examples, 1300 further problems, 425 multiple choice questions (with answers), and contains sections covering the mathematics that students will require within their engineering studies, mechanical applications, electrical applications and engineering systems. This book is supported by a companion website of materials that can be found at www.routledge/cw/bird. This resource includes fully worked solutions of all the further problems for students to access, and the full solutions and marking schemes for the revision tests found within the book for instructor use. In addition, all 447 illustrations will be available for downloading by lecturers.

Now in its eighth edition, Engineering Mathematics is an established textbook that has helped thousands of students to succeed in their exams. John Bird's approach is based on worked examples and interactive problems. Mathematical theories are explained in a straightforward manner, being supported by practical engineering examples and applications in order to ensure that readers can relate theory to practice. The extensive and thorough topic coverage makes this an ideal text for a range of Level 2 and 3 engineering courses. This title is supported by a companion website with resources for both students and lecturers, including lists of

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essential formulae and multiple choice tests. Studying engineering, whether it is mechanical, electrical or civil relies heavily on an understanding of mathematics. This new textbook clearly demonstrates the relevance of mathematical principles and shows how to apply them to solve real-life engineering problems. It deliberately starts at an elementary level so that students who are starting from a low knowledge base will be able to quickly get up to the level required. Students who have not studied mathematics for some time will find this an excellent refresher. Each chapter starts with the basics before gently increasing in complexity. A full outline of essential definitions, formulae, laws and procedures are introduced before real world situations, practicals and problem solving demonstrate how the theory is applied. Focusing on learning through practice, it contains examples, supported by 1,600 worked problems and 3,000 further problems contained within exercises throughout the text. In addition, 34 revision tests are included at regular intervals. An interactive companion website is also provided containing 2,750 further problems with worked solutions and instructor materials

Now in its sixth edition, Higher Engineering Mathematics is an established textbook that has helped many thousands of students to gain exam success. John Bird's approach is ideal for students

from a wide range of academic backgrounds, and can be worked through at the student's own pace. Mathematical theories are examined in the simplest of terms, supported by practical examples and applications from a wide variety of engineering disciplines, to ensure that the reader can apply theory to practice. This extensive and thorough topic coverage makes this an ideal book for a range of university degree modules, foundation degrees, and HNC/D units. This new edition of Higher Engineering Mathematics has been further extended with topics specifically written to help first year engineering degree students and those following foundation degrees. New material has been added on logarithms and exponential functions, binary, octal and hexadecimal numbers, vectors and methods of adding alternating waveforms. This book caters specifically for the engineering mathematics units of the Higher National Engineering schemes from Edexcel, including the core unit Analytical methods for Engineers, and two optional units: Further Analytical Methods for Engineers and Engineering Mathematics, common to both the electrical/electronic engineering and mechanical engineering pathways. A mapping grid is included showing precisely which topics are required for the learning outcomes of each unit. Higher Engineering Mathematics contains examples, supported by 900 worked problems and 1760 further problems

contained within exercises throughout the text. In addition, 19 revision tests, which are available to use as tests or as homework are included at regular intervals.

"This compendium of essential formulae, definitions, tables and general information provides the mathematical information required by students, technicians, scientists and engineers in day-to-day engineering practice. All the essentials of engineering mathematics - from algebra, geometry and trigonometry to logic circuits, differential equations and probability - are covered, with clear and succinct explanations and illustrated with over 300 line drawings and 500 worked examples based in real-world application. The emphasis throughout the book is on providing the practical tools needed to solve mathematical problems quickly and efficiently in engineering contexts." --Publisher.

Basic Engineering Mathematics, 6th ed Routledge
Die geheime Pflicht der Scanner Weit in der Zukunft hat die Menschheit das Geheimnis des interstellaren Fluges entdeckt: Dank des „Ersten Effekts“ lassen sich die gewaltigen Distanzen zwischen den Sternen überwinden. Doch der Erste Effekt ist so schmerzhaft, dass nur bestimmte, zuvor veränderte Menschen, die sogenannten Scanner oder Habermänner, ihn ertragen können. Martel ist ein solcher Habermann. Wie sein Leben war, ehe er halb Mensch, halb Maschine wurde, weiß er schon

