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CONTENTS

MATHEMATICS

Developmental Mathematics	4
Technical Mathematics	5
<u>Precalculus</u>	5
<u>Algebra</u>	5
Trigonometry	6
<u>Algebra & Trigonometry</u>	6
James Stewart's Calculus	7
Calculus by Ron Larson and Bruce Edwards	8
Applied Calculus for Business	9
Calculus for Biological Sciences	9
<u>Mathematics for Management and the</u> <u>Sciences</u>	9
Discrete Mathematics	10
Finite Mathematics	10
Mathematics for Engineering	10
Linear Algebra	10
Numerical Analysis and Methods	
Differential Equations	
Transition to Advanced Mathematics	

STATISTICS

Introductory Statistics	12
Probability and Statistics	13
Applied Statistics	13
Regression Analysis	13
<u>Biostatistics</u>	13
Statistical Computing	13

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Connecting Concepts through Applications 2nd Edition

Mark Clark, Palomar College Cynthia Anfinson, Palomar College © 2019 | 9781337616065

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5th Edition Paul D. Nolting

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6th Edition

Richard N. Aufmann, Palomar College Joanne S. Lockwood, Nashua Community College © 2014 | 928pp | 9781133365419

Introductory and Intermediate Algebra, 6th Edition focuses on the Aufmann Interactive Method (AIM). Students are encouraged to be active participants in the classroom and in their own studies as they work through the How To examples and the paired Examples and You Try It problems. New features like Focus on Success, Apply the Concept, and Concept Check add an increased emphasis on study skills and conceptual understanding to strengthen the foundation of student success. The Sixth Edition also features a new design, enhancing the Aufmann Interactive Method and making the pages easier for both students and instructors to follow.

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Bruce Crauder, Oklahoma State University Benny Evans, Oklahoma State University Alan Noell, Oklahoma State University

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Daniel C. Alexander, Parkland College Geralyn M. Koeberlein, Mahomet-Seymour High School

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Functions and Change



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PRECALCULUS

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Precalculus

Mathematics for Calculus International Metric Edition, 7th Edition

James Stewart, McMaster University Lothar Redlin, Pennsylvania State University Saleem Watson, California State University © 2017 | 1024pp | 9781305999985

With its clear and simple writing style, *Precalculus, 7th Edition*, gives students a solid foundation in the principles of mathematical thinking. Problem solving and mathematical modeling are reinforced throughout. This comprehensive, evenly paced book provides complete coverage of the function concept and integrates substantial graphing calculator materials that help students develop insight into mathematical ideas.

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Precalculus

International Metric Edition, 10th Edition Ron Larson, The Pennsylvania State University

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Larson's *Precalculus* is known for sound, consistently structured explanations of mathematical concepts

and exercises to expertly prepare students for calculus. With the Tenth Edition, the author continues to revolutionize the way students learn by incorporating more real-world applications and innovative technology. It includes How Do You See It? exercises that let students practice applying concepts and Summarize and Checkpoint questions to reinforce students' understanding.

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exercises as his core Precalculus text, with a concentrated focus on preparation for calculus.



Introductory Technical Mathematics

7th Edition

John Peterson, Chattanooga State Technical Community College Robert D. Smith, Chattanooga State Technical Community College

© 2019 | 1040pp | 9781337397674

With an emphasis on real-world math applications, the seventh edition of *Introductory Technical Mathematics* provides readers with current and practical technical math applications for today's sophisticated trade and technical work environments. Straightforward and easy to understand, this hands-on book helps readers build a solid understanding of math concepts through step-by-step examples and problems drawn from various occupations.

ALGEBRA

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10th Edition

Ron Larson, The Pennsylvania State University

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Larson's *College Algebra*, *10th Edition* is known for delivering sound explanations of mathematical

concepts and carefully selected exercises to prepare students for further study in mathematics. With the Tenth Edition, Larson continues to transform the way students learn by including more real-world applications, ongoing review, and technology.

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College Algebra

7th Edition

James Stewart, McMaster University Lothar Redlin, Pennsylvania State University Saleem Watson, California State University

© 2016 | 832pp | 9781305115545

Along with longtime coauthors Lothar Redlin and Saleem Watson, James Stewart wrote *College Algebra* specifically to help students learn to think mathematically and to develop genuine problem-solving skills. Incorporating technology, real-world applications, and useful pedagogy, the seventh edition promises to help more students than ever build conceptual understanding and a core of fundamental skills.

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College Algebra

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5



COLLEGE ALGEBR





TRIGONOMETRY

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Trigonometry

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Larson's *Trigonometry* incorporates real-world applications, ongoing review, and innovative

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Trigonometry

2nd Edition

James Stewart, McMaster University Lothar Redlin, Pennsylvania State University Saleem Watson, California State University

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GEBRA & TRIG

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Trigonometry

8th Edition

Charles P. McKeague, Cuesta Community College Mark Turner, Cuesta College

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Students gain a solid understanding of the principles of trigonometry and how these concepts apply to real life with McKeague/ Turner's *Trigonometry*. The book presents contemporary concepts in brief, manageable sections using current, detailed examples and interesting applications. Captivating illustrations such as cycling, the Ferris wheel, and the human cannonball show trigonometry in action. Unique Historical Vignettes offer a fascinating glimpse at how many of the central ideas in trigonometry began. The text is easy to read, and important theorems and definitions are boxed so they can be quickly identified for study purposes.

ALGEBRA & TRIGONOMETRY

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Algebra & Trigonometry

10th Edition



Larson's Algebra And Trigonometry is ideal for a two-term course and known for delivering sound,

consistently structured explanations and carefully written exercises. It includes How Do You See It? exercises that give students practice applying the concepts and Summarize and Checkpoint questions to reinforce understanding of skills.

Available with WEBASSIGN

Algebra and Trigonometry

4th Edition

James Stewart, McMaster University Lothar Redlin, Pennsylvania State University Saleem Watson, California State University © 2016 | 1136pp | 9781305071742



This bestselling author team explains concepts simply and clearly, without glossing over difficult points. Problem solving and mathematical modeling are introduced early and reinforced throughout, providing students with a solid foundation in the principles of mathematical thinking. Comprehensive and evenly paced, the book provides complete coverage of the function concept, and integrates a significant amount of graphing calculator material to help students develop insight into mathematical ideas.

Available with WEBASSIGN

Algebra and Trigonometry 8th Edition

Richard N. Aufmann, Palomar College Richard D. Nation, Palomar College © 2015 | 1088pp | 9781285449425

Accessible to students and flexible for instructors,

Algebra And Trigonometry, 8th Edition incorporates the dynamic link between concepts and applications to bring mathematics to life. By integrating interactive learning techniques, the Aufmann author team helps students to better understand concepts, work independently, and obtain greater mathematical fluency. The text also includes technology features to accommodate courses that allow the option of using graphing calculators. In the eighth edition, Review Notes are featured more prominently throughout the text to help students recognize the key prerequisite skills needed to understand new concepts.



Γľ

Trigonometry

JAMES STEWART'S CALCULUS

James Stewart's Calculus texts are widely renowned for their mathematical precision and accuracy, clarity of exposition, and outstanding examples and problem sets. Millions of students worldwide have explored calculus through Stewart's trademark style, while instructors have turned to his approach time and time again.

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- A "Concept Check" and "True/False Quiz" allow students to prepare for upcoming tests through ideas and skill-building.

Available with WEBASSIGN

A customisable online resource that provides learning content, homework, tests and practice problems with instant assessment. New Explore It modules help students to visualize complex topics through interactive simulation.

Accompanying Student Solutions Manuals and Study Guides are also available for Stewart's Calculus textbooks. Please contact your local Cengage representative for more information.

ABOUT THE AUTHORS

James Stewart

Stewart, who passed away in 2014, was a world-renowned author and mathematician publishing more than 70 textbooks over the course of his life. He received his M.S. from Stanford University and his Ph.D. from the University of Toronto. He did research at the University of London and was influenced by the famous mathematician George Polya at Stanford University. Stewart was the author of the bestselling calculus textbook series, including *Calculus, Calculus: Early Transcendentals* and *Calculus: Concepts And Contexts*, as well as a series of precalculus texts.

Daniel Clegg

Daniel Clegg, a former colleague of Stewart's, will author the new editions. Daniel Clegg is a Professor of Mathematics at Palomar College and assisted Stewart with various aspects of his calculus texts.

Saleem Watson

Saleem Watson is a Professor of Mathematics at California State University, Long Beach, specializing in the field of Functional Analysis. He co-authored the best-selling *Precalculus: Mathematics for Calculus* with Stewart and Redlin.

7

CALCULUS BY RON LARSON AND BRUCE EDWARDS



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- Hints and tips are included to reinforce or expand upon concepts, help students learn how to study mathematics, caution them against common errors, address special cases, or show alternative or additional steps to a solution of an example.
- Comprehensive question sets include multi-step, real-life exercises that reinforce problem-solving skills and mastery of concepts by giving students the opportunity to apply the concepts in real-life situations.
- LarsonCalculus.com The authors created a free companion website offering many valuable resources, including videos, interactive examples and rotatable graphs.

Available with WEBASSIGN

ABOUT THE AUTHORS

Ron Larson

Dr. Ron Larson is a professor of mathematics at The Pennsylvania State University, where he has taught since 1970 and is considered the pioneer of using multimedia to enhance the learning of mathematics, having authored over 30 software titles since 1990. He has also received numerous awards for his various Calculus textbooks.

Bruce H. Edwards

Dr. Bruce H. Edwards is Professor of Mathematics at the University of Florida. While teaching at the University of Florida, Professor Edwards has won many teaching awards, including Teacher of the Year in the College of Liberal Arts and Sciences and the University of Florida Honors Program Teacher of the Year.

APPLIED CALCULUS FOR BUSINESS

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Calculus

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Designed specifically for business, economics and life/social sciences courses, *Calculus: An Applied Approach* motivates students while fostering understanding and mastery. The book emphasizes integrated and engaging applications that show the real-world relevance of topics and concepts with applied problems drawn from industry, current events, and other

disciplines to provide well-rounded examples that appeal to diverse interests. The Tenth Edition builds upon its applications emphasis through updated exercises and relevant examples. Throughout the text, features such as algebra review and study tips provide students with extra guidance and practice. Stepped-out solution videos with instruction are available at CalcView.com for selected exercises throughout the text. Additionally, the companion website, LarsonAppliedCalculus.com, offers free access to multiple tools and resources.





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An Applied Approach, Brief International Metric Edition 10th Edition Ron Larson, The Pennsylvania State University © 2017 | 640pp | 9781337290579

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Biocalculus 🗹

Calculus for Life Sciences James Stewart, McMaster University Troy Day, Queens' University © 2015 | 900pp | 9781133109631

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Biocalculus

Calculus, Probability, and Statistics for the Life Sciences James Stewart, McMaster University Troy Day, Queens' University

© 2016 | 1032pp | 9781305114036

This book shows students how calculus relates to biology, with additional coverage of probability and statistics. The text motivates and illustrates the

topics of calculus with examples drawn from many areas of biology, including genetics, biomechanics, medicine, pharmacology, physiology, ecology, epidemiology, and evolution, to name a few. Particular attention has been paid to ensuring that all applications of the mathematics are genuine, and references to the primary biological literature for many of these has been provided so that students and instructors can explore the applications in greater depth. Although the focus is on the interface between mathematics and the life sciences, the logical structure of the book is motivated by the mathematical material. Students will come away with a sound knowledge of mathematics, an understanding of the importance of mathematical arguments, and a clear understanding of how these mathematical concepts and techniques are central in the life sciences.

MATHEMATICS FOR MANAGEMENT AND THE SCIENCES

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12th Edition

Ronald J. Harshbarger, University of South Carolina James J. Reynolds, Clarion University

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Mathematical Applications For The Management, Life, And Social Sciences, 12th Edition, helps students succeed in finite mathematics and applied calculus courses by tying the concepts to real-life applications using real, meaningful data. Designed for students in business, economics, life sciences and social sciences, the book offers a brief review of algebra to prepare students with different backgrounds.



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Applied Mathematics for the Managerial, Life, and Social Sciences

7th Edition

Soo T. Tan, Stonehill College

© 2016 | 1024pp | 9781305107908

A traditional book with a modern feel, teaches by application and uses real-world examples to motivate students. It combines solid theory with innovative technology, includes a robust supplements package, and offers unmatched flexibility that caters to both traditional and modern practitioners.



9

DISCRETE MATHEMATICS

FINITE MATHEMATICS

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MATHEMATICS FOR ENGINEERING

Advanced Engineering Mathematics

SI Edition

8th Edition

Peter V. O'Neil, University of Alabama, Birmingham © 2018 | 1024pp | 9781337274524

Advanced Engineering Mathematics, SI Edition is

written specifically for students who are primarily interested in how to effectively apply mathematical techniques to solve advanced engineering problems. Numerous examples include illustrations of mathematical techniques as well as applications. A "Math in Context" feature clearly demonstrates how the mathematical concepts and methods students are learning relate to current engineering problems. The book is organized into seven distinctive parts to provide precise focus on the individual mathematical ideas and methods.

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Finite Mathematics 7th Edition

Stefan Waner, Hofstra University Steven Costenoble, Hofstra University

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Full of relevant, diverse, and current real-world applications that students can relate to, Waner and Costenoble's *Finite*

Mathematics, 7th Edition, helps your students see the relevance of mathematics in their lives. A large number of the applications are based on real, referenced data from business, economics, and the life and social sciences. Thorough, clearly delineated spreadsheet and TI Graphing Calculator instruction appears throughout the text, supplemented by an acclaimed author website that provides interactive tutorials, powerful utilities, conceptualization tools, review, and practice.

Available with WEBASSIGN

Finite Mathematics and Applied Calculus 7th Edition

Stefan Waner, Hofstra University Steven Costenoble, Hofstra University © 2018 | 9781337274203



LINEAR ALGEBRA

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Elementary Linear Algebra

International Metric Edition

8th Edition

Ron Larson, The Pennsylvania State University © 2017 | 592pp | 9781337556217

This book's clear, careful, and concise presentation of material helps students fully understand how mathematics works. The author balances theory with examples, applications, and geometric intuition for a complete, step-by-step learning system. To engage your students in the material, a new design highlights the relevance of the mathematics and makes the book easier to read. Data and applications reflect current statistics and examples, demonstrating the link between theory and practice.



Available with WEBASSIGN

A Modern Introduction 4th Edition David Poole, Trent University © 2015 | 720pp | 9781285463247



David Poole's innovative *Linear Algebra: A Modern Introduction* emphasizes a vectors approach and better prepares students to make the transition from computational to theoretical mathematics. Balancing theory and applications, the book is written in a conversational style and combines a traditional presentation with a focus on student-centered learning. Additionally, it features ample applications drawn from a variety of disciplines, which reinforce the fact that linear algebra is a valuable tool for modeling real-life problems.





NUMERICAL ANALYSIS AND METHODS

Numerical Analysis

10th Edition

Richard L. Burden, Youngstown State University J. Douglas Faires, Youngstown State University Annette M. Burden, Youngstown State University © 2016 | 912pp | 9781305253667

This well-respected book introduces readers to the theory and application of

modern numerical approximation techniques. Providing an accessible treatment that only requires a calculus prerequisite, the authors explain how, why, and when approximation techniques can be expected to work-and why, in some situations, they fail. A wealth of examples and exercises develop students intuition, and demonstrate the subject's practical applications to important everyday problems in maths, computing, engineering, and physical science disciplines. Three decades after it was first published, Burden, Faires, and Burden's *Numerical Analysis* remains the definitive introduction to a vital and practical subject.

DIFFERENTIAL EQUATIONS

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This Metric Edition of *A First Course in Differential Equations with Modeling Applications* features a new design that helps students quickly identify resources in the text and emphasizes the application of differential equations in the world around them. Through clear and concise explanations, a wealth of examples, and exercises that reinforce and build on chapter content it offers a thorough overview of the topics taught in a first course in differential equations.



WITH BOUNDARY-VALUE PROBLEMS

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Differential Equations with Boundary-Value Problems

International Metric Edition

9th Edition

Dennis G. Zill, Loyola Marymount University

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Differential Equations with Boundary-Value Problems strikes a balance between the analytical, qualitative, and quantitative approaches to the study of Differential Equations. With the new, student-friendly design of the First Course book, it offers clear, accessible coverage as well as an introduction to boundary-value problems and partial differential equations. It offers a variety of pedagogical features to support students' study including plenty of examples, explanations, "Remarks" boxes, and definitions.

TRANSITION TO ADVANCED MATHEMATICS

A Transition to Advanced Mathematics

8th Edition

Doug Smith, Maurice Eggen, Richard St. Andre

© 2015 | 448pp | 9781285463261



auations

A Transition To Advanced Mathematics helps students to bridge the gap between calculus and advanced math courses. It provides a firm foundation in major concepts needed for continued study and guides students to think and express themselves mathematically—to

analyze a situation, extract pertinent facts, and draw appropriate conclusions. The authors present introductions to modern algebra and analysis and place continuous emphasis throughout on improving students' ability to read and write proofs, and on developing their critical awareness for spotting common errors in proofs. Concepts are clearly explained and supported with detailed examples, while abundant and diverse exercises provide thorough practice on both routine and more challenging problems. Students will come away with a solid intuition for the types of mathematical reasoning they'll need to apply in later courses and a better understanding of how mathematicians of all kinds approach and solve problems.

STATISTICS

INTRODUCTORY STATISTICS

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Understanding **Basic Statistics**

International Metric Edition

8th Edition

Charles Henry Brase, Regis University Corrinne Pellillo Brase, Arapahoe **Community College**

© 2019 | 672pp | 9781337782180

Understanding Basic Statistics, International Metric Edition provides a streamlined and effective way to teach the essentials of statistics, including early coverage of regression. It provides plenty of guidance as it demonstrates the links between statistics and the real world with a reader friendly approach to help students grasp score statistics concepts. A wealth of dynamic content including simulation questions, labs, projects, videos and more are available in the accompanying WebAssign to provide a complete course to teach students to think statistically.

VERSIO

2

Available with WEBASSIGN

Introduction to Statistics and Data Analysis

6th Edition

Roxy Peck, California Polytechnic State University Chris Olsen, Grinnell College Jay L. Devore, California Polytechnic State University

© 2020 | 896pp | 9781337793612

Introduction To Statistics And Data Analysis introduces students to the study of statistics and data analysis by using real data and attention-grabbing examples. The authors guide the reader through an intuition-based learning process that stresses interpretation and communication of statistical information. Simple notation--including frequent substitution of words for symbols--helps students grasp concepts and cement their comprehension. You'll also find coverage of most major technologies as a problem-solving tool, plus hands-on activities in each chapter that allow your class to practice statistics firsthand.

Statistics

Learning from Data

2nd Edition

Roxy Peck, California Polytechnic State University Tom Short, West Chester University of Pennsylvania © 2019 | 729pp | 9781337558082

Statistics: Learning From Data, addresses common problems faced by students and instructors with

an innovative approach to elementary statistics. Translating research on student learning in statistics and probability into practice, the authors tackle areas students struggle with most -- probability, hypothesis testing, and selecting an appropriate method of analysis. Supported by learning objectives, real-data examples and exercises, and technology notes, this important resource helps students to develop conceptual understanding, mechanical proficiency, and the ability to put knowledge into practice.

Available with WEBASSIGN

Mind on Statistics (with JMP Printed Access Card)

5th Edition

Jessica M. Utts, University of California Robert F. Heckard, Pennsylvania State University

© 2015 | 768pp | 9781305649811



Mind On Statistics, 5th Edition, helps students to develop a conceptual understanding of statistical ideas and discover how to find meaning in data. The authors engage students' curiosity with intriguing questions, and explain statistical topics in the context of interesting, useful examples and case studies. Your students will develop statistical intuition by focusing on analyzing data and interpreting results, rather than on mathematical formulation building both statistical literacy and an understanding of statistical methodology.

An Introduction to Statistical **Methods and Data Analysis**

7th Edition

R. Lyman Ott Michael T. Longnecker, Texas A&M University

Ott and Longnecker's An Introduction To Statistical Methods And Data Analysis, 7th Edition, provides a

broad overview of statistical methods for advanced undergraduate and graduate students from a variety of disciplines who have little or no prior course work in statistics. The authors teach students to solve problems encountered in research projects, to make decisions based on data in general settings both within and beyond the university setting, and to become critical readers of statistical analyses in research papers and news reports. The first eleven chapters present material typically covered in an introductory statistics course, as well as case studies and examples that are often encountered in undergraduate capstone courses. The remaining chapters cover regression modeling and design of experiments.









TATISTICS DATA ANALYSIS

STATISTICS



PROBABILITY AND STATISTICS

Available with WEBASSIGN

Probability and Statistics for Engineering and the Sciences

International Metric Edition

9th Edition

Jay L. Devore, California Polytechnic State University © 2016 | 768pp | 9781337094269

Put statistical theories into practice with *Probability And Statistics For Engineering And The Sciences*. This calculus-based book offers a comprehensive introduction to probability and statistics while demonstrating how to apply concepts, models, and methodologies in today's engineering and scientific workplaces. Jay Devore, an award-winning professor and internationally recognized author and statistician, stresses lively examples and engineering activities to drive home the numbers without exhaustive mathematical development and derivations. Many examples, practice problems, sample tests, and simulations based on real data and issues help students build a more intuitive connection to the material. This book also includes graphics and screen shots from SAS®, MINITAB®, and Java™ Applets to give a solid perspective of statistics in action.

NEW EDITION Available with WEBASSIGN

Introduction to Probability and Statistics

International Metric Edition 15th Edition

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