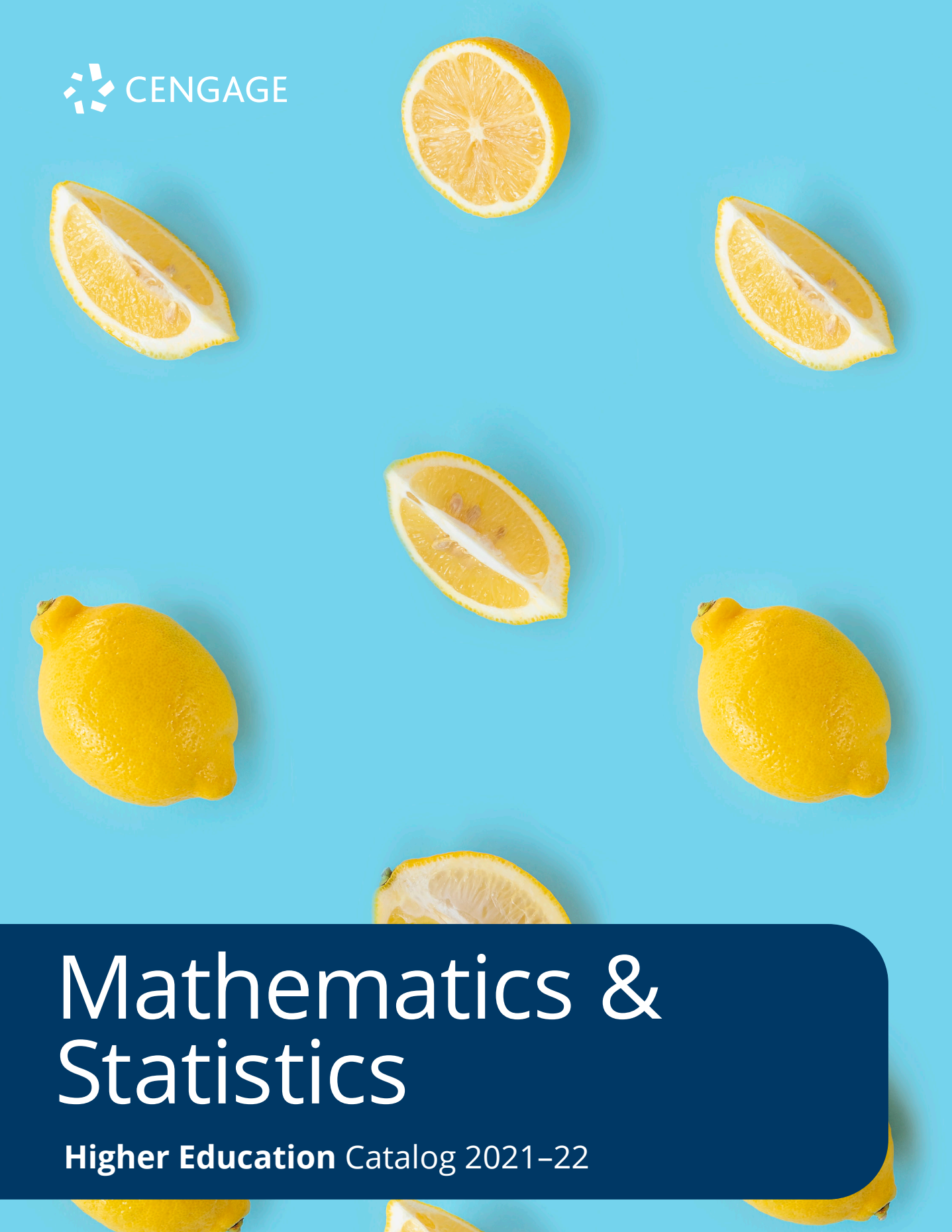

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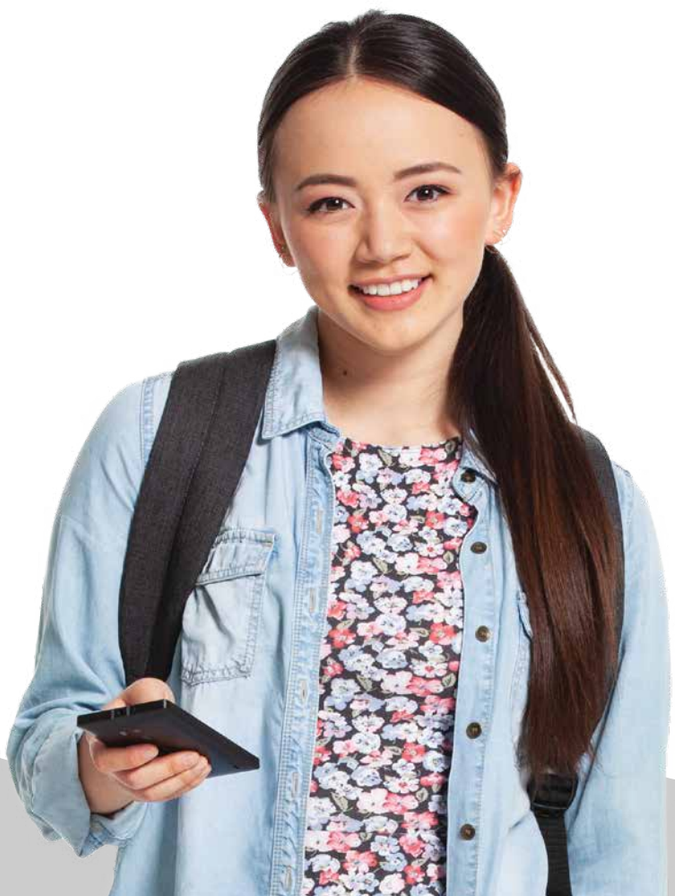

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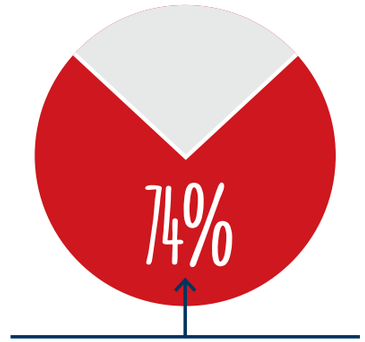

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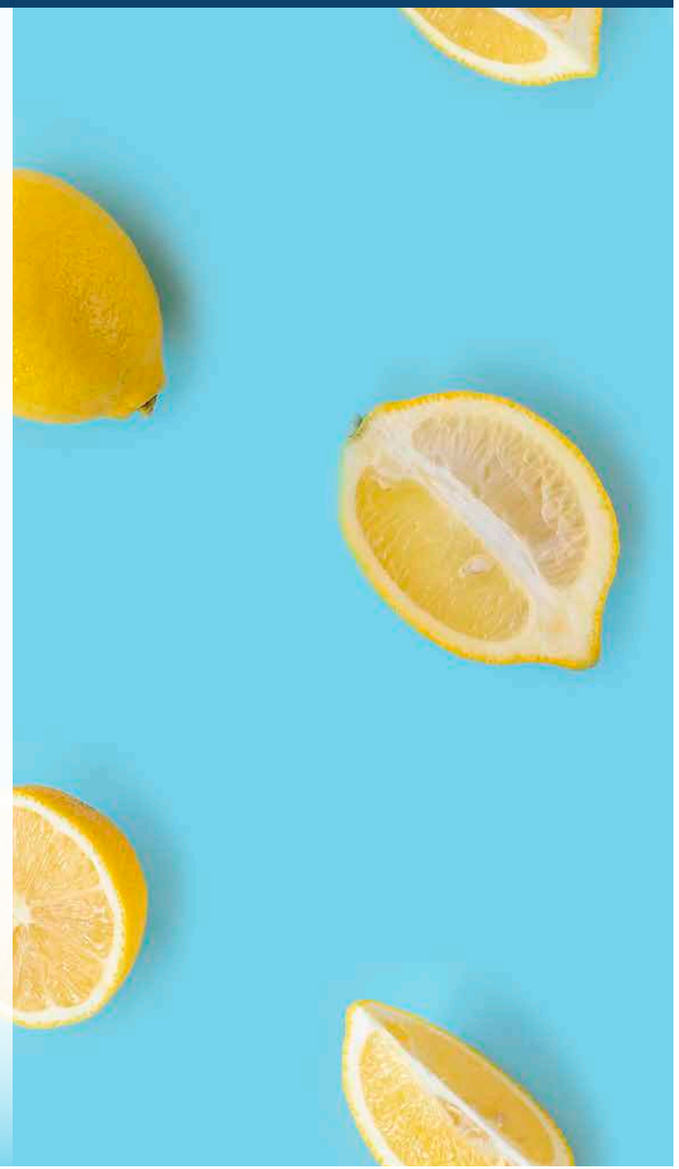

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CALCULUS

NEW EDITION

CALCULUS, 9E

Early Transcendentals

James Stewart, McMaster University; Daniel K. Clegg, Palomar College; Saleem Watson, California State University, Long Beach; Lothar Redlin, Pennsylvania State University, Abington Campus

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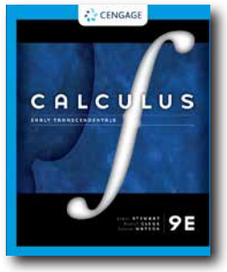

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NEW EDITION

CALCULUS, 9E

James Stewart, McMaster University; Daniel K. Clegg, Palomar College; Saleem Watson, California State University, Long Beach

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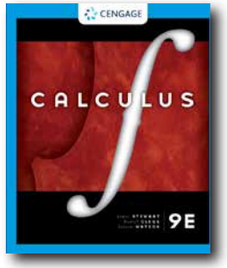

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Early Transcendentals, Metric Edition

James Stewart, McMaster University; Daniel K. Clegg, Palomar College; Saleem Watson, California State University, Long Beach; Lothar Redlin, Pennsylvania State University, Abington Campus

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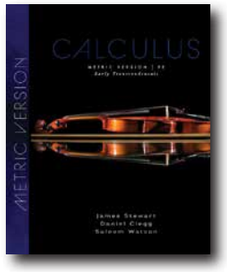

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James Stewart, McMaster University; Daniel K. Clegg, Palomar College; Saleem Watson, California State University, Long Beach

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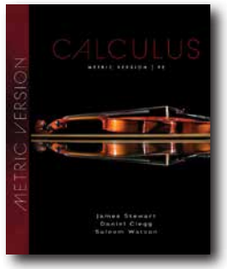

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NEW EDITION

MULTIVARIABLE CALCULUS, 9E

James Stewart, McMaster University; Daniel K. Clegg, Palomar College; Saleem Watson, California State University, Long Beach

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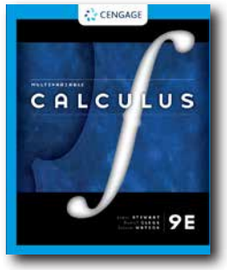

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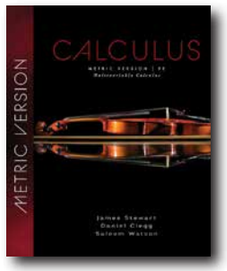

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NEW EDITION

SINGLE VARIABLE CALCULUS, 9E

Early Transcendentals, Metric Edition

James Stewart, McMaster University; Daniel K. Clegg, Palomar College; Saleem Watson, California State University, Long Beach; Lothar Redlin, Pennsylvania State University, Abington Campus

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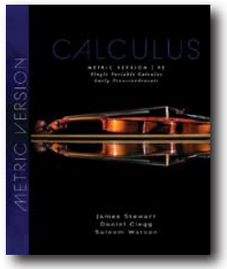

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James Stewart, McMaster University; Daniel K. Clegg, Palomar College; Saleem Watson, California State University, Long Beach; Lothar Redlin, Pennsylvania State University, Abington Campus

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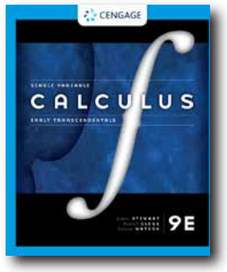

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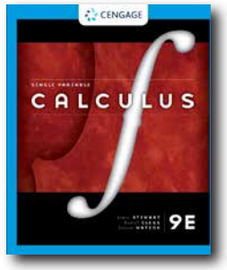

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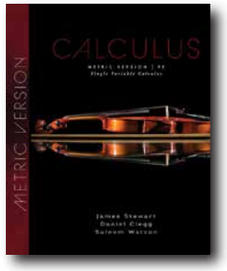

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CALCULUS, 4E

Concepts and Contexts, Enhanced Edition

James Stewart, McMaster University

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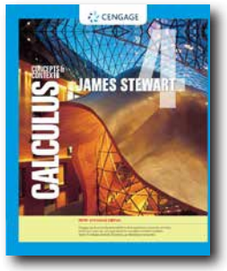

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CALCULUS, 7E

Early Transcendental Functions

Ron Larson, The Pennsylvania State University, The Behrend College; Bruce H. Edwards, University of Florida

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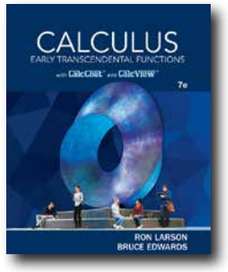

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CALCULUS OF A SINGLE VARIABLE, 7E

Early Transcendental Functions

Ron Larson, The Pennsylvania State University, The Behrend College; Bruce H. Edwards, University of Florida

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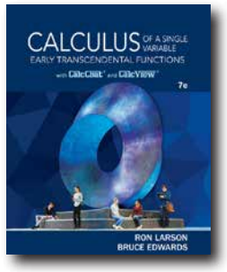

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CALCULUS OF A SINGLE VARIABLE: EARLY TRANSCENDENTAL FUNCTIONS, INTERNATIONAL METRIC EDITION, 7E

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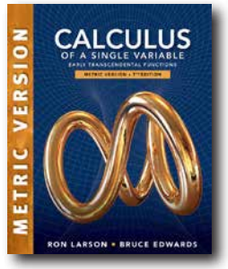

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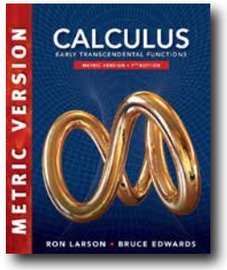

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Concepts and Contexts, Enhanced Edition

James Stewart, McMaster University

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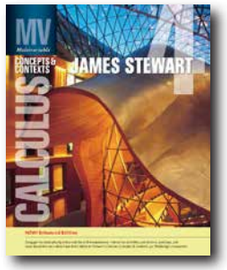

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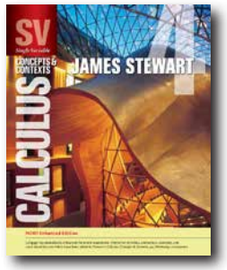

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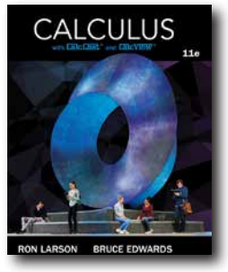

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CALCULUS OF A SINGLE VARIABLE, 11E

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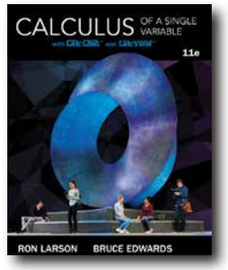

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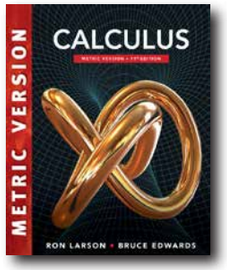

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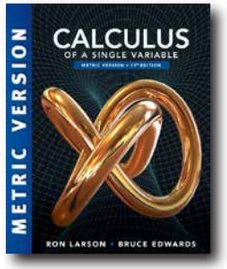

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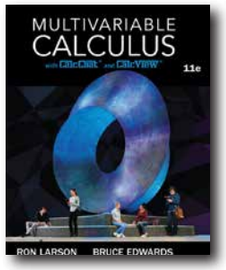

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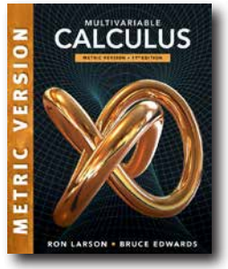

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Calculus, Probability, and Statistics for the Life Sciences

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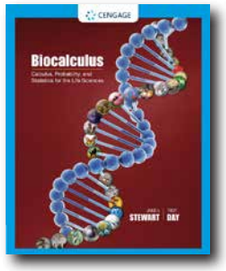

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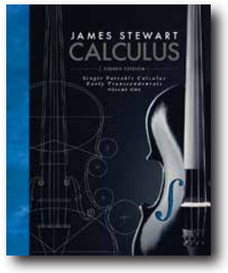

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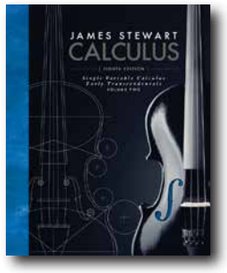

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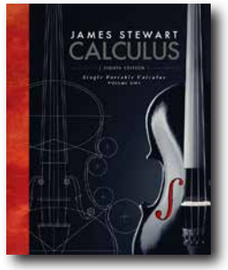

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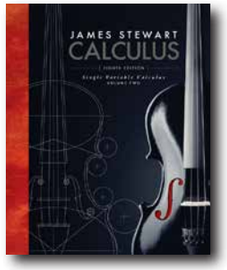

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BIOCALCULUS

Calculus for Life Sciences

James Stewart, McMaster University; Troy Day, Queens' University

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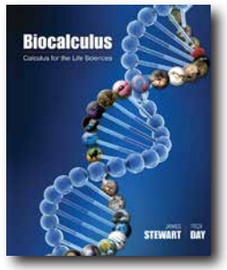

The chief goal in this textbook is to show you how calculus relates to biology, and provide you with a sound knowledge of mathematics and an understanding of the importance of mathematical arguments. Equally important, you will also come away with a clear understanding of how these mathematical concepts and techniques are central in the life sciences. 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 you can explore the applications in greater depth.

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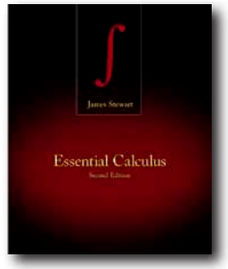

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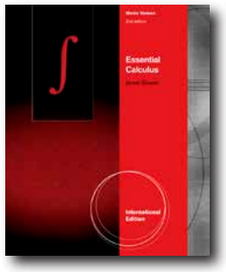

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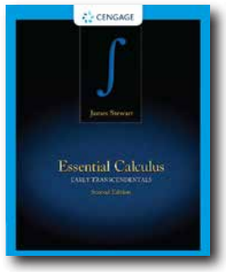

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MODELING THE DYNAMICS OF LIFE, 3E

Calculus and Probability for Life Scientists

Frederick R. Adler, University of Utah

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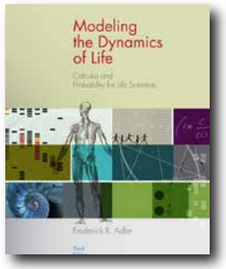

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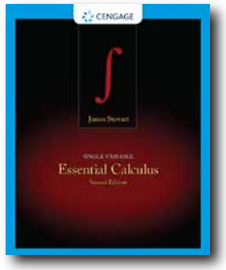

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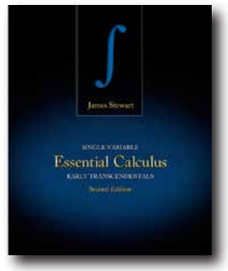

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DEVELOPMENTAL MATHEMATICS

BASIC MATHEMATICS FOR COLLEGE STUDENTS WITH EARLY INTEGERS, 6E

Alan S. Tussy, Citrus College; Diane Koenig, Rock Valley College

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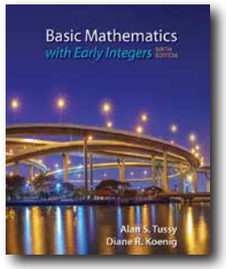

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Connecting Concepts through Applications

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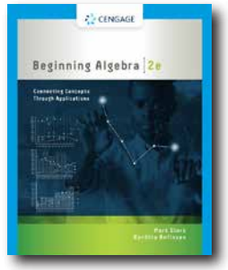

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ELEMENTARY TECHNICAL MATHEMATICS, 12TH, 12E

Dale Ewen, Parkland Community College

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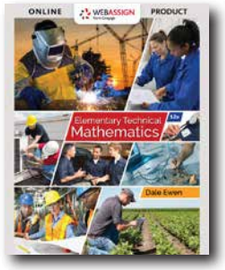

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INTERMEDIATE ALGEBRA, 2E

Connecting Concepts through Applications

Mark Clark, Palomar College; Cynthia Anfinson, Palomar College

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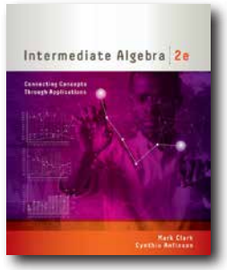

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PREALGEBRA, 6E

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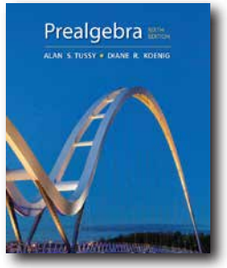

In the Sixth Edition of Tussy/Koenig's PREALGEBRA, new Look Alikes help you compare and contrast problem types to help you understand the correct meaning of the questions and determine the necessary steps to work the problem. The authors help you understand the language of algebra and teach you how to read, write, and think mathematically.

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ALGEBRA FOR COLLEGE STUDENTS, 10E

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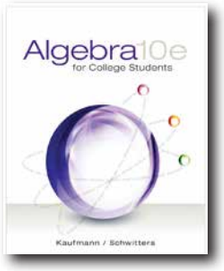

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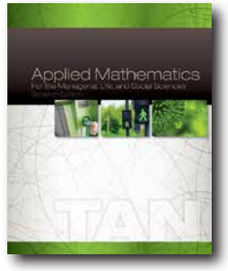

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A Guided Approach

Rosemary Karr, Collin County Community College; Marilyn Massey, Collin County Community College; R. David Gustafson, Rock Valley College (Emeritus)

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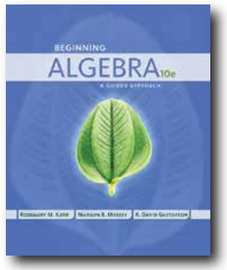

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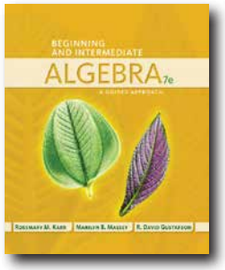

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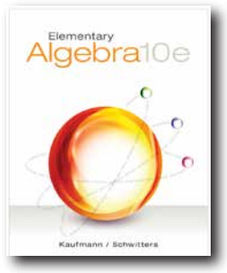

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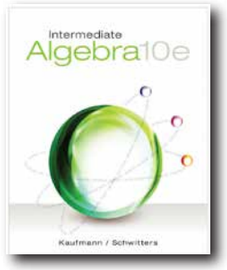

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INTERMEDIATE ALGEBRA, 10E

A Guided Approach

Rosemary Karr, Collin County Community College; Marilyn Massey, Collin County Community College; R. David Gustafson, Rock Valley College (Emeritus)

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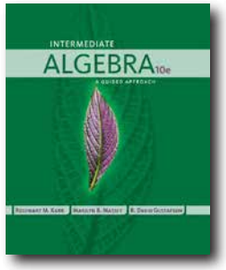

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INTRODUCTORY ALGEBRA, 5E

Alan S. Tussy, Citrus College; Diane Koenig, Rock Valley College

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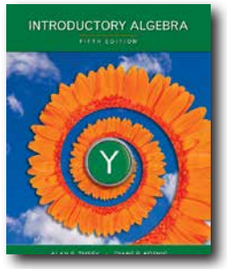

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BASIC COLLEGE MATHEMATICS, 10E

An Applied Approach

Richard N. Aufmann, Palomar College; Joanne S. Lockwood, Nashua Community College

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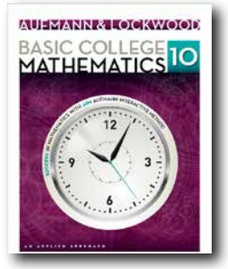

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Ron Larson, The Pennsylvania State University, The Behrend College

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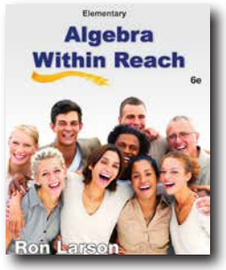

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ELEMENTARY ALGEBRA

Laura Bracken, Lewis-Clark State College; Ed Miller, Lewis-Clark State College

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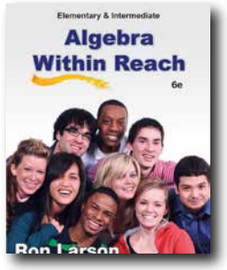

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ESSENTIALS OF MATHEMATICS, 9E

An Applied Approach

Richard N. Aufmann, Palomar College; Joanne S. Lockwood, Nashua Community College

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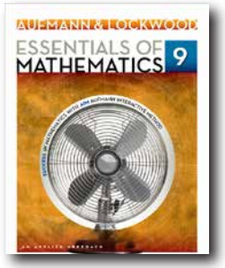

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INTERMEDIATE ALGEBRA, 6E

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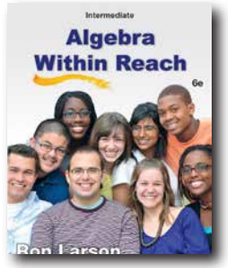

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INTERMEDIATE ALGEBRA

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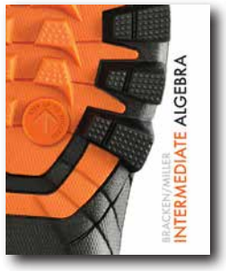

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INTERMEDIATE ALGEBRA, 9E

An Applied Approach

Richard N. Aufmann, Palomar College; Joanne S. Lockwood, Nashua Community College

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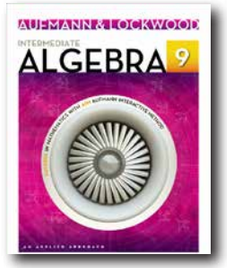

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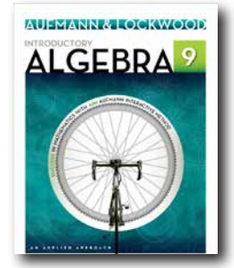

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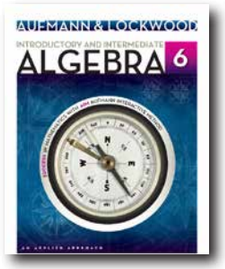

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PREALGEBRA, 6E

An Applied Approach

Richard N. Aufmann, Palomar College; Joanne S. Lockwood, Nashua Community College

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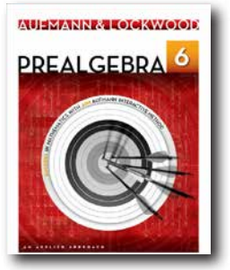

The focus in PREALGEBRA is on you, the student. You are encouraged to be an active participant both in the classroom and in your own studies. For the first time in this edition, How To examples appear before the paired Examples and You Try It problems—a hallmark feature found in all other books in the Aufmann series. PREALGEBRA presents worked examples, and then provides you with the opportunity to immediately solve similar problems, helping you build confidence as you learn to master the concepts. This simple framework, known as the Aufmann Interactive Method (AIM) is the foundation for your success. All lessons, exercise sets, tests, and supplements are organized around a carefully constructed hierarchy of objectives. Each exercise mirrors a preceding objective, enabling you to better understand key concepts and practice skills you have just learned. This clear, objective-based approach helps you organize your thoughts around the content making the pages easier for you to follow. Available with InfoTrac® Student Collections http://gocengage.com/infotrac.

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Note: Each chapter begins with a Prep Test and concludes with a Chapter Summary, a Chapter Review, and a Chapter Test. Chapters 2-10 include Cumulative Review Exercises. A. AIM FOR SUCCESS. 1. WHOLE NUMBERS. Introduction to Whole Numbers. Addition and Subtraction of Whole Numbers. Multiplication and Division of Whole Numbers. Solving Equations with Whole Numbers. The Order of Operations Agreement. 2. INTEGERS. Introduction to Integers. Addition and Subtraction of Integers. Multiplication and Division of Integers. Solving Equations with Integers. The Order of Operations Agreement. 3. FRACTIONS. Least Common Multiple and Greatest Common Factor. Introduction to Fractions. Multiplication and Division of Fractions. Addition and Subtraction of Fractions. Solving Equations with Fractions. Exponents, Complex Fractions, and the Order of Operations Agreement. 4. DECIMALS AND REAL NUMBERS. Introduction to Decimals. Addition and Subtraction of Decimals. Multiplication and Division of Decimals. Solving Equations with Decimals. Radical Expressions. Real Numbers. 5. VARIABLE EXPRESSIONS. Properties of Real Numbers. Variable Expressions in Simplest Form. Addition and Subtraction of Polynomials. Multiplication of Monomials. Multiplication of Polynomials. Division of Monomials. Verbal Expressions and Variable Expressions. 6. FIRST-DEGREE EQUATIONS. Equations of the form x + a = b and ax = b. Equations of the Form ax + b = c 380. General First-Degree Equations. Translating Sentences into Equations. The Rectangular Coordinate System. Graphs of Straight Lines. 7. MEASUREMENT AND PROPORTION. The Metric System of Measurement. Ratios and Rates. The U.S. Customary System of Measurement. Proportion. Direct and Inverse Variation. 8. PERCENT. Percent. The Basic Percent Equation. Percent Increase and Percent Decrease. Markup and Discount. Simple Interest. 9. GEOMETRY. Introduction to Geometry. Plane Geometric Figures. Triangles. Solids. 10. STATISTICS AND PROBABILITY. Organizing Data. Statistical Measures. Introduction to Probability. FINAL EXAM. APPENDIX. Solutions to You-Try-Its. Answers to Selected Exercises. GLOSSARY.

PREALGEBRA AND INTRODUCTORY ALGEBRA, 3E

An Applied Approach

Richard N. Aufmann, Palomar College; Joanne S. Lockwood, Nashua Community College

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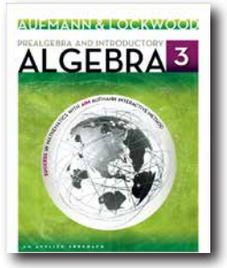

The focus in PREALGEBRA & INTRODUCTORY ALGEBRA is on you, the student. You are encouraged to be an active participant both in the classroom and in your own studies as you work through the How To examples and the paired Examples and You Try It problems. Active engagement is crucial to your success. PREALGEBRA & INTRODUCTORY ALGEBRA presents worked examples, and then provides you with the opportunity to immediately solve similar problems, helping you build confidence as you learn to master the concepts. This simple framework, known as the Aufmann Interactive Method (AIM) is the foundation for your success. All lessons, exercise sets, tests, and supplements are organized around a carefully constructed hierarchy of objectives. Each exercise mirrors a preceding objective, enabling you to better understand key concepts and practice skills you have just learned. This clear, objective-based approach helps you organize your thoughts around the content making the pages easier for you to follow. Available with InfoTrac® Student Collections http://gocengage.com/infotrac.

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1. WHOLE NUMBERS. Introduction to Whole Numbers. Addition and Subtraction of Whole Numbers. Multiplication and Division of Whole Numbers. The Order of Operations Agreement. 2. FRACTIONS AND DECIMALS. The Least Common Multiple and Greatest Common Factor. Introduction to Fractions. Addition and Subtraction of Fractions. Multiplication and Division of Fractions. Introduction to Decimals. Operations with Decimals. The Order of Operations Agreement. 3. RATIONAL NUMBERS. Introduction to Integers. Addition and Subtraction of Integers. Multiplication and Division of Integers. Operations with Rational Numbers. The Order of Operations Agreement. 4. VARIABLE EXPRESSIONS. Evaluating Variable Expressions. Simplifying Variable Expressions. Translating Verbal Expressions into Variable Expressions. 5. SOLVING EQUATIONS. Introduction to Equations. General Equations -- Part I. General Equations -- Part II. Translating Sentences into Equations. Mixture and Uniform Motion Problems. 6. PROPORTION AND PERCENT. Ratios and Rates. Proportion. Percent. The Basic Percent Equation. Simple Interest. 7. GEOMETRY. Introduction to Geometry. Plane Geometric Figures. Triangles. Solids. 8. STATISTICS AND PROBABILITY. Statistical Graphs. Statistical Measures. Introduction to Probability. 9. POLYNOMIALS. Addition and Subtraction of Polynomials. Multiplication of Monomials. Multiplication of Polynomials. Integer Exponents and Scientific Notation. Division of Polynomials. 10. FACTORING. Common Factors. Factoring Polynomials of the Form x2 + bx + c. Factoring Polynomials of the Form ax2 + bx + c. Special Factoring. Solving Equations. 11. RATIONAL EXPRESSIONS. Multiplication and Division of Rational Expressions. Expressing Fractions in Terms of the Least Common Multiple (LCM). Addition and Subtraction of Rational Expressions. Complex Fractions. Solving Equations Containing Fractions. Literal Equations. Application Problems. 12. LINEAR EQUATIONS IN TWO VARIABLES. The Rectangular Coordinate System. Linear Equations in Two Variables. Intercepts and Slopes of Straight Lines. Equations of Straight Lines. 13. SYSTEMS OF LINEAR EQUATIONS. Solving Systems of Linear Equations by Graphing. Solving Systems of Linear Equations by the Substitution Method. Solving Systems of Equations by the Addition Method. Application Problems in Two Variables. 14. INEQUALITIES. Sets. The Addition and Multiplication Properties of Inequalities. General Inequalities. Graphing Linear Inequalities. 15. RADICAL EXPRESSIONS. Introduction to Radical

Expressions. Addition and Subtraction of Radical Expressions. Multiplication and Division of Radical Expressions. Solving Equations Containing Radical Expressions. 16. QUADRATIC EQUATIONS. Solving Quadratic Equations by Factoring or by Taking Square Roots. Solving Quadratic Equations by Completing the Square. Solving Quadratic Equations by Using the Quadratic Formula. Graphing Quadratic Equations in Two Variables. Application Problems.

ALGEBRA, 3E

Beginning and Intermediate

Richard N. Aufmann, Palomar College; Joanne S. Lockwood, Nashua Community College

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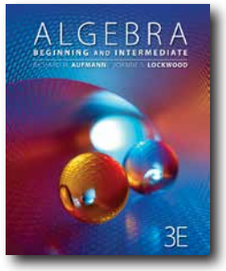

Intended for combined introductory and intermediate algebra courses, this text retains the hallmark features that have made the Aufmann texts market leaders: an interactive approach in an objective-based framework: a clear writing style, and an emphasis on problem-solving strategies. The acclaimed Aufmann Interactive Method, provides you with the opportunity to try a skill as it is introduced with matched-pair examples, offering you immediate feedback, reinforcing the concept, identifying problem areas, and, overall, promoting student success.

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1. REAL NUMBERS AND VARIABLE EXPRESSIONS. Introduction to Integers. Operations with Integers. Rational Numbers. Exponents and the Order of Operations Agreement. Variable Expressions. Translating Verbal Expressions into Variable Expressions. 2. SOLVING EQUATIONS AND INEQUALITIES. Introduction to Equations. General Equations. Value Mixture and Uniform Motion Problems. Geometry Problems. Markup and Discount Problems. Applications: Problems Involving Percent. Inequalities in One Variable. Absolute Value Equations and Inequalities. 3. LINEAR FUNCTIONS AND INEQUALITIES IN TWO VARIABLES. The Rectangular Coordinate System. Introduction to Functions. Linear Functions. Slope of a Straight Line. Finding Equations of Lines. Parallel and Perpendicular Lines. Inequalities in Two Variables. 4. SYSTEMS OF EQUATIONS AND INEQUALITIES. Solving Systems of Linear Equations by Graphing and by the Substitution Method. Solving Systems of Linear Equations by the Addition Method. Solving Systems of Equations by Using Determinants and by Using Matrices. Application Problems. Solving Systems of Linear Inequalities. 5. POLYNOMIALS. Introduction to Polynomials. Multiplication of Monomials. Multiplication of Polynomials. Integer Exponents and Scientific Notation. Division of Polynomials. 6. FACTORING. Common Factors. Factoring Polynomials of the Form x^2 + bx + c. Factoring Polynomials of the Form ax^2 + bx + c. Special Factoring. Factor Polynomials Completely. Solving Equations. 7. RATIONAL EXPRESSIONS. Introduction to Rational Functions. Operations on Rational Expressions. Complex Fractions. Rational Equations. Proportions and Variation. Literal Equations. 8. RATIONAL EXPONENTS AND RADICALS. Rational Exponents and Radical Expressions. Operations on Radical Expressions. Radical Functions. Solving Equations Containing Radical Expressions. Complex Numbers. 9. QUADRATIC EQUATIONS AND INEQUALITIES. Solving Quadratic Equations by Factoring or by Taking Square Roots. Solving Quadratic Equations by Completing the Square and by Using the Quadratic Formula. Equations that are Reducible to Quadratic Equations. Applications of Quadratic Equations. Properties of Quadratic Functions. Applications of Quadratic Functions. Nonlinear Inequalities. 10. FUNCTIONS AND RELATIONS. Translations of Graphs. Algebra of Functions. One-to-One and Inverse Functions. 11. EXPONENTIAL AND LOGARITHMIC FUNCTIONS. Exponential Functions. Introduction to Logarithms. Graphs of Logarithmic Functions. Exponential and Logarithmic Equations. Applications of Exponential and Logarithmic Functions. 12. CONIC SECTIONS. The Parabola. The Circle. The Ellipse and the Hyperbola. Solving Nonlinear Systems of Equations. Quadratic Inequalities and Systems of Inequalities. Final Exam. Appendix.

BASIC MATHEMATICS, 8E

A Text/Workbook

Charles P. McKeague, Cuesta Community College

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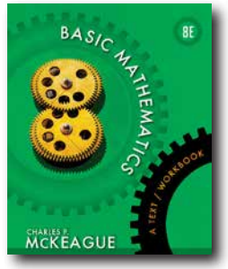

For the modern student like you--Pat McKeague's BASIC MATHEMATICS, 8E--offers concise writing, continuous review, and contemporary applications to show you how mathematics connects to your modern world. The new edition continues to reflect the author's passion for teaching mathematics by offering guided practice, review, and reinforcement to help you build skills through hundreds of new examples and applications. Use the examples, practice exercises, tutorials, videos, and e-Book sections in Enhanced WebAssign to practice your skills and demonstrate your knowledge.

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1. WHOLE NUMBERS. Place Value and Names for Numbers. Addition with Whole Numbers, and Perimeter. Rounding Numbers and Estimating Answers. Subtraction with Whole Numbers. Multiplication with Whole Numbers. Division with Whole Numbers. Exponents, Order of Operations, and Averages. Area and Volume. 2. FRACTIONS AND MIXED NUMBERS. The Meaning and Properties of Fractions. Prime Numbers, Factors, and Reducing to Lowest Terms. Multiplication with Fractions, and the Area of a Triangle. Division with Fractions. Addition and Subtraction with Fractions. Mixed-Number Notation. Multiplication and Division with Mixed Numbers. Addition and Subtraction with Mixed Numbers. Combinations of Operations and Complex Fractions. 3. DECIMALS. Decimal Notation and Place Value. Addition and Subtraction with Decimals. Multiplication with Decimals, Circumference and Area of a Circle. Division with Decimals. Fractions and Decimals, and the Volume of a Sphere. Square Roots and the Pythagorean

Theorem. 4. RATIO AND PROPORTION. Ratios. Rates and Unit Pricing. Solving Equations by Division. Proportions. Applications of Proportions. Similar Figures. 5. PERCENTS. Percents, Decimals, and Fractions. Basic Percent Problems. General Applications of Percent. Sales Tax and Commission. Percent Increase or Decrease and Discount. Interest. Pie Charts. 6. MEASUREMENT. Unit Analysis I: Length. Unit Analysis II: Area and Volume. Unit Analysis III: Weight. Converting Between the U.S. and Metric Systems and Temperature. Operations with Time and Mixed Units. 7. INTRODUCTION TO ALGEBRA. Positive and Negative Numbers. Addition with Negative Numbers. Subtraction with Negative Numbers. Multiplication with Negative Numbers. Division with Negative Numbers. Simplifying Algebraic Expressions. 8. SOLVING EQUATIONS. The Distributive Property and Algebraic Expressions. The Addition Property of Equality. The Multiplication Property of Equality. Linear Equations in One Variable. Applications. Evaluating. APPENDICES. A. Negative Exponents. B. Scientific Notation. C. Multiplication and Division with Scientific.

BEGINNING ALGEBRA, 8E

Richard N. Aufmann, Palomar College; Joanne S. Lockwood, Nashua Community College

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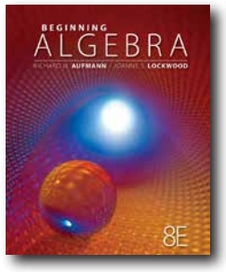

Intended for developmental math courses in beginning algebra, this text retains the hallmark features that have made the Aufmann texts market leaders: an interactive approach in an objective-based framework: a clear writing style, and an emphasis on problem-solving strategies. The acclaimed Aufmann Interactive Method, provides you with the opportunity to try a skill as it is introduced with matched-pair examples, offering you immediate feedback, reinforcing the concept, identifying problem areas, and, overall, promoting student success.

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A. AIM FOR SUCCESS. 1. PRE-ALGEBRA REVIEW. Introduction to Integers. Operations with Integers. Rational Numbers. Exponents and the Order of Operations Agreement. Concepts from Geometry. 2. VARIABLE EXPRESSIONS. Evaluating Variable Expressions. Simplifying Variable Expressions. Translating Verbal Expressions into Variable Expressions. 3. SOLVING EQUATIONS AND INEQUALITIES. Introduction to Equations. Applications of Equations of the Form _ax_ = _b_. General Equations. Inequalities. 4. SOLVING EQUATIONS AND INEQUALITIES: APPLICATIONS. Translating Sentences into Equations. Geometry Problems. Markup and Discount Problems. Investment Problems. Mixture Problems. Uniform Motion Problems. Inequalities. 5. LINEAR EQUATIONS AND INEQUALITIES. The Rectangular Coordinate System. Graphs of Straight Lines. Slopes of Straight Lines. Equations of Straight Lines. Functions. Graphing Linear Inequalities. 6. SYSTEMS OF LINEAR EQUATIONS. Solving Systems of Linear Equations by Graphing. Solving Systems of Linear Equations by the Substitution Method. Solving Systems of Linear Equations by the Addition Method. Application Problems in Two Variables. 7. POLYNOMIALS. Addition and Subtraction of Polynomials. Multiplication of Monomials. Multiplication of Polynomials. Integer Exponents and Scientific Notation. Division of Polynomials. 8. FACTORING. Common Factors. Factoring Polynomials of the Form _x_^2 + _bx_ + _c_. Factoring Polynomials of the Form _ax_^2 + _bx_ + _c_. Special Factoring. Factoring Polynomials Completely. Solving Equations. 9. RATIONAL EXPRESSIONS. Multiplication and Division of Rational Expressions. Expressing Fractions in Terms of the LCD. Addition and Subtraction of Rational Expressions. Complex Fractions. Equations Containing Fractions. Variation. Literal Equations. Application Problems. 10. RADICAL EXPRESSIONS. Introduction to Radical Expressions. Addition and Subtraction of Radical Expressions. Multiplication and Division of Radical Expressions. Solving Equations Containing Radical Expressions. 11. QUADRATIC EQUATIONS. Solving Quadratic Equations by Factoring or by Taking Square Roots. Solving Quadratic Equations by Completing the Square. Solving Quadratic Equations by Using the Quadratic Formula. Complex Numbers. Graphing Quadratic Equations in Two Variables. Application Problems. Final Exam. Appendix.

BEGINNING ALGEBRA, 9E

A Text/Workbook

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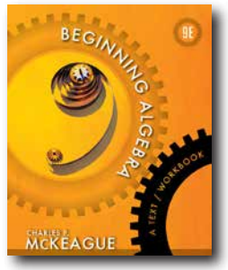

For the modern student like you--Pat McKeague's BEGINNING ALGEBRA, 9E--offers concise writing, continuous review, and contemporary applications to show you how mathematics connects to your modern world. The new edition continues to reflect the author's passion for teaching mathematics by offering guided practice, review, and reinforcement to help you build skills through hundreds of new examples and applications. Use the examples, practice exercises, tutorials, videos, and e-Book sections in Enhanced WebAssign to practice your skills and demonstrate your knowledge.

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1. THE BASICS. Variables, Notation, and Symbols. Real Numbers. Addition and Subtraction of Real Numbers. Multiplication of Real Numbers. Division of Real Numbers. Properties of Real Numbers. Subsets of Real Numbers. Addition and Subtraction of Fractions with Variables. 2. LINEAR EQUATIONS AND INEQUALITIES. Simplifying Expressions. Addition Property of Equality. Multiplication Property of Equality. Solving Linear Equation. Formulas. Applications. More Applications. Linear Inequalities. Compound Inequalities. 3. LINEAR EQUATIONS AND INEQUALITIES IN TWO VARIABLES Paired Data and Graphing Ordered Pairs. Solutions to Linear Equations in Two Variables. Graphing Linear Equations in Two Variables. More on Graphing: Intercepts. The Slope of a Line. Finding the Equation of a Line. Linear Inequalities in Two Variables. 4. SYSTEMS OF LINEAR EQUATIONS. Solving Linear Systems by Graphing. The Elimination Method. The Substitution Method. Applications. 5. EXPONENTS AND POLYNOMIALS. Multiplication

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BEGINNING AND INTERMEDIATE ALGEBRA

Connecting Concepts Through Applications

Mark Clark, Palomar College; Cynthia Anfinson, Palomar College

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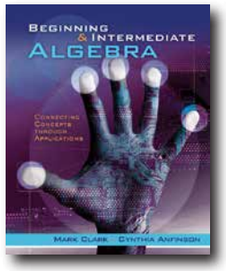

BEGINNING AND INTERMEDIATE ALGEBRA: CONNECTING CONCEPTS THROUGH APPLICATIONS, shows students how to apply traditional mathematical skills in real-world contexts. The emphasis on skill building and applications engages students as they master algebraic concepts, problem solving, and communication skills. Students develop sound mathematical skills by learning how to solve problems generated from realistic applications, instead of learning techniques without conceptual understanding. Authors Mark Clark and Cynthia Anfinson have developed several key ideas to make concepts real and vivid for students. First, the authors place an emphasis on developing strong algebra skills that support the applications, enhancing student comprehension and developing their problem solving abilities. Second, applications are integrated throughout, drawing on realistic and numerically appropriate data to show students how to apply math and to understand why they need to know it. These applications require students to think critically and develop the skills needed to explain and think about the meaning of their answers. Third, important concepts are developed as students progress through the course and overlapping elementary and intermediate content in kept to a minimum. Chapter 8 sets the stage for the intermediate material where students explore the "eyeball best-fit" approach to modeling and understand the importance of graphs and graphing including graphing by hand. Fourth, Mark and Cynthia's approach prepares students for a range of courses including college algebra and statistics. In short, BEGINNING AND INTERMEDIATE ALGEBRA: CONNECTING CONCEPTS THROUGH APPLICATIONS develops strong mathematical skills using an engaging, application-driven and problem solving-focused approach to algebra.

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R. REVIEW OF PREALGEBRA. Operations with Integers. Operations with Fractions. Operations with Decimals and Percents. The Real Number System. 1. BUILDING BLOCKS OF ALGEBRA. Exponents, Order of Operations, and Properties of Real Numbers Exponents. Algebra and Working with Variables. Simplifying Expressions. Graphs and the Rectangular Coordinate System. 2. LINEAR EQUATIONS AND INEQUALITIES WITH ONE VARIABLE. Addition and Subtraction Properties of Equality. Multiplication and Division Properties of Equality. Solving Equations with Variables on Both Sides. Solving and Graphing Linear Inequalities on a Number Line. 3. LINEAR EQUATIONS WITH TWO VARIABLES. Graphing Equations with Two Variables. Finding and Interpreting Slope. Slope-Intercept Form of Lines. Linear Equations and Their Graphs. Finding Equations of Lines. 4. SYSTEMS OF LINEAR EQUATIONS. Identifying Systems of Linear Equations. Solving Systems Using the Substitution Method. Solving Systems Using the Elimination Method. Solving Linear Inequalities in Two Variables Graphically. 5. EXPONENTS and POLYNOMIALS. Rules for Exponents. Negative Exponents and Scientific Notation. Adding and Subtracting Polynomials. Multiplying Polynomials. Dividing Polynomials. 6. FACTORING AND QUADRATIC EQUATIONS. What It Means to Factor. Factoring Trinomials. Factoring Special Forms. Solving Quadratic Equations by Factoring. 7. RATIONAL EXPRESSIONS AND EQUATIONS. The Basics of Rational Expressions and Equations. Multiplication and Division of Rational Expressions. Addition and Subtraction of Rational Expressions. Solving Rational Equations. Proportions, Similar Triangles, and Variation. 8. MODELING DATA AND FUNCTIONS. Solving Linear Applications. Using Data to Create Scatterplots. Finding Linear Models. Functions and Function Notation. 9. INEQUALITIES AND ABSOLUTE VALUES. Absolute Value Equations. Absolute Value Inequalities. Non-Linear Inequalities of One Variable. Solving Systems of Linear Inequalities. 10. RADICAL FUNCTIONS. From Squaring a Number to Roots and Radicals. Basic Operations with Radical Expressions. Multiplying and Dividing Radical Expressions. Radical Functions. Solving Radical Equations. Complex Numbers. 11. QUADRATIC FUNCTIONS. Quadratic Functions and Parabolas. Graphing Quadratics in Vertex Form. Finding Quadratic Models. Solving Quadratic Equations by Square Root Property. Solving Equations by Completing the Square. Solving Quadratic Equations by Using the Quadratic Formula. Graphing Quadratics from Standard Form. 12. EXPONENTIAL FUNCTIONS. Exponential Functions: Patterns of Growth and Decay. Solving Equations Using Exponent Rules. Graphing Exponential Functions. Finding Exponential Models. Exponential Growth and Decay Rates and Compounding Interest. 13. LOGARITHMIC FUNCTIONS. Functions and Their Inverses. Logarithmic Functions. Graphing Logarithmic Functions. Properties of Logarithms. Solving Exponential Equations. Solving Logarithmic Equations. 14. CONIC SECTIONS, SEQUENCES AND SERIES. Parabolas and Circles. Ellipses and Hyperbolas. Arithmetic Sequences. Geometric Sequences. Series Appendix A: Matrices. Appendix B: Using the Graphing Calculator. Appendix C: Practice Problems Answers. Appendix D: Answers to Selected Exercises.

ELEMENTARY ALGEBRA, 5E

Alan S. Tussy, Citrus College; R. David Gustafson, Rock Valley College (Emeritus)

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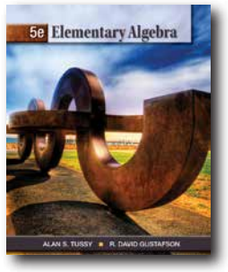

Algebra can be like a foreign language, but ELEMENTARY ALGEBRA, 5E, gives you the tools and practice you need to fully understand the language of algebra and the "why" behind problem solving. Using Strategy and Why explanations in worked examples and a six-step problem solving strategy, ELEMENTARY ALGEBRA, 5E, will guide you through an integrated learning process that will expand your reasoning abilities as it teaches you how to read, write, and think mathematically. Feel confident about your skills through additional practice in the text and Enhanced WebAssign. With ELEMENTARY ALGEBRA, 5E, algebra will make sense because it is not just about the x...it's also about the WHY.

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ELEMENTARY AND INTERMEDIATE ALGEBRA, 5E

Alan S. Tussy, Citrus College; R. David Gustafson, Rock Valley College (Emeritus)

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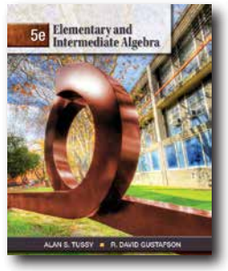

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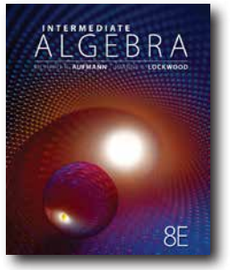

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Level 1

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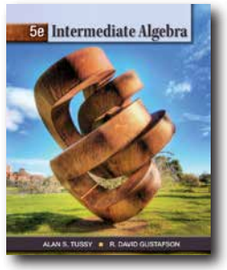

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INTERMEDIATE ALGEBRA, 5E

Everyday Explorations

Alice Kaseberg, Emerita Lane Community College, Eugene, Oregon; Greg Cripe, Spokane Falls Community College, Spokane, Washington; Peter Wildman, Spokane Falls Community College, Spokane, Washington

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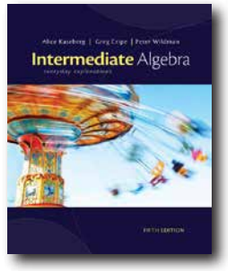

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INTERMEDIATE ALGEBRA, 8E

Richard N. Aufmann, Palomar College; Joanne S. Lockwood, Nashua Community College

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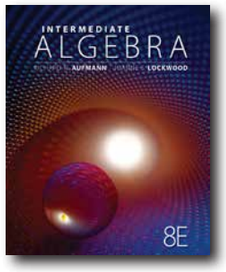

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INTRODUCTORY ALGEBRA, 5E

Everyday Explorations

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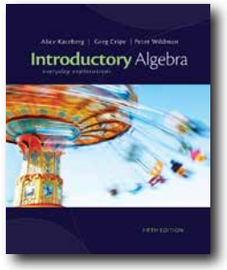

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Richard N. Aufmann, Palomar College; Joanne S. Lockwood, Nashua Community College

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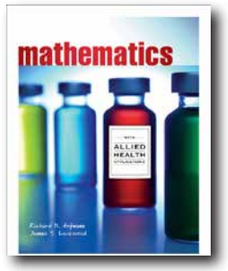

This book is intended for algebra courses for the allied health professional. This book includes examples and exercises that reflect the situations that as allied health professionals you will face in your daily challenges throughout your career.

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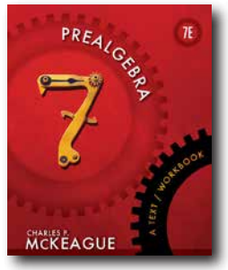

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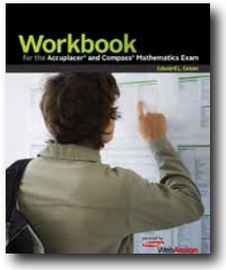

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Charles P. McKeague, Cuesta Community College

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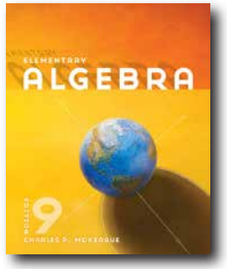

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Jerome E. Kaufmann, Western Illinois University (Retired); Karen L. Schwitters, Seminole Community College

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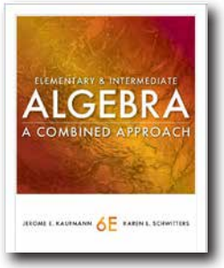

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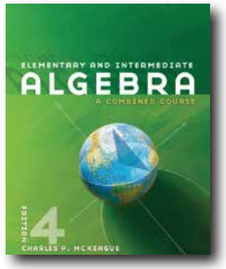

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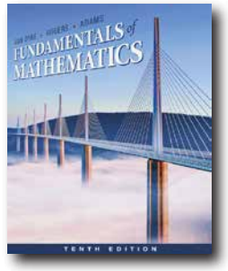

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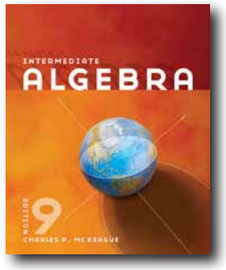

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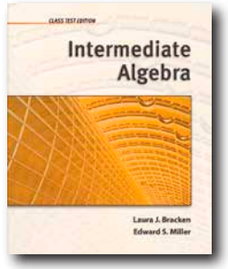

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INTERMEDIATE ALGEBRA: HYBRID (WITH WEBASSIGN WITH EBOOK FOR ONE TERM MATH AND SCIENCE)

Jerome E. Kaufmann, Western Illinois University (Retired);
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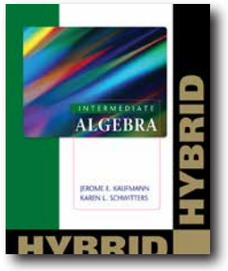

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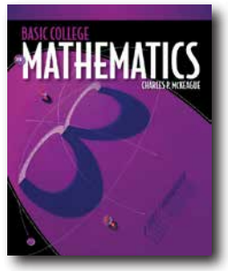

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BASIC GEOMETRY FOR COLLEGE STUDENTS, 2E

An Overview of the Fundamental Concepts of Geometry

Alan S. Tussy, Citrus College; R. David Gustafson, Rock Valley College (Emeritus)

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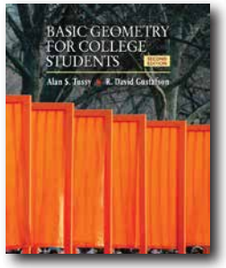

Intended to address the need for a concise overview of fundamental geometry topics. Sections 1-7 introduce such topics as angles, polygons, perimeter, area, and circles. In the second part of the text, Sections 8-11 cover congruent and similar triangles, special triangles, volume, and surface area.

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1. Basic Geometric Figures. 2. More about Angles. 3. Parallel and Perpendicular Lines. 4. Triangles. 5. Quadrilaterals and Other Polygons. 6. Perimeters and Areas of Polygons. 7. Circles. Cumulative Review Problems. 8. Congruent Triangles and Similar. Triangles. 9. The Pythagorean Theorem and Special Triangles. 10. Volume. 11. Surface Area. Cumulative Review Exercises. Appendix I. Inductive and Deductive Reasoning. Appendix II. Answers to Selected Exercises.

DISCRETE MATHEMATICS

DISCRETE MATHEMATICS WITH APPLICATIONS, 5E

Susanna S. Epp, DePaul University

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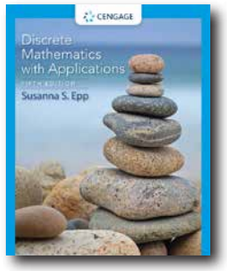

DISCRETE MATHEMATICS WITH APPLICATIONS, 5th Edition, explains complex, abstract concepts with clarity and precision and provides a strong foundation for computer science and upper-level mathematics courses of the computer age. Author Susanna Epp presents not only the major themes of discrete mathematics, but also the reasoning that underlies mathematical thought. Students develop the ability to think abstractly as they study the ideas of logic and proof. While learning about such concepts as logic circuits and computer addition, algorithm analysis, recursive thinking, computability, automata, cryptography and combinatorics, students discover that the ideas of discrete mathematics underlie and are essential to today's science and technology.

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DISCRETE MATHEMATICS WITH APPLICATIONS, METRIC EDITION, 5E

Susanna S. Epp, DePaul University

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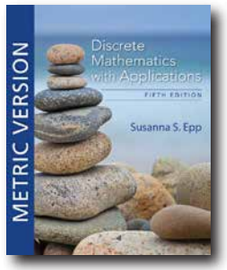

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MATHEMATICS, 3E

A Discrete Introduction

Edward R. Scheinerman, The Johns Hopkins University

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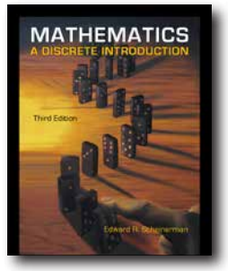

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Groups. Group Isomorphism. Subgroups. Fermat's Little Theorem. Public-Key Cryptography I: Introduction. Public-Key Cryptography II: Rabin's Method. Public-Key Cryptography III: RSA. Self Test. 9. GRAPHS. Graph Theory Fundamentals. Subgraphs. Connection. Trees. Eulerian Graphs. Coloring. Planar Graphs. Self Test. 10. PARTIALLY ORDERED SETS. Partially Ordered Sets Fundamentals. Max and Min. Linear Orders. Linear Extensions. Dimension. Lattices. Self Test. APPENDICES. Lots of Hints and Comments; Some Answers. Solutions to Self Tests. Glossary. Fundamentals. Index.

FINITE MATHEMATICS / APPLIED CALCULUS

MATHEMATICAL APPLICATIONS FOR THE MANAGEMENT, LIFE, AND SOCIAL SCIENCES, 12E

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

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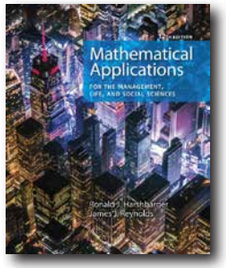

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APPLIED CALCULUS, 7E

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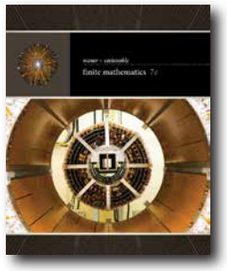

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FINITE MATHEMATICS FOR THE MANAGERIAL, LIFE, AND SOCIAL SCIENCES, 12E

An Applied Approach

Soo T. Tan, Stonehill College

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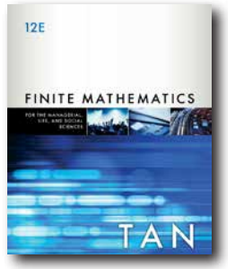

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APPLIED CALCULUS FOR THE MANAGERIAL, LIFE, AND SOCIAL SCIENCES, 10E

Soo T. Tan, Stonehill College

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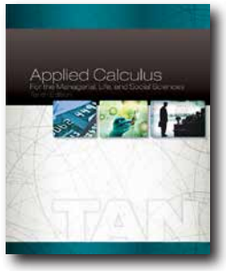

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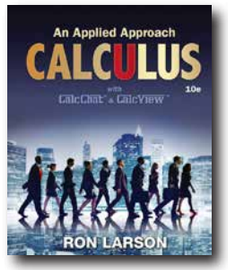

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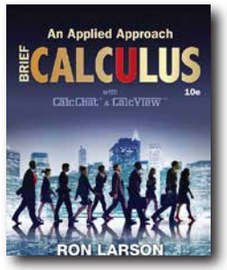

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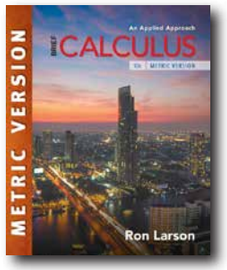

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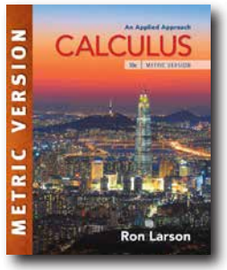

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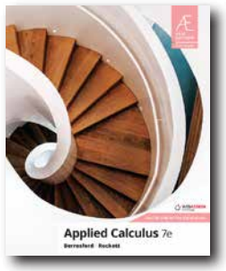

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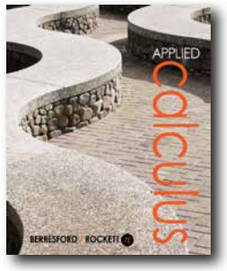

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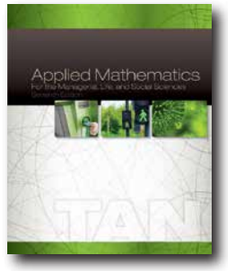

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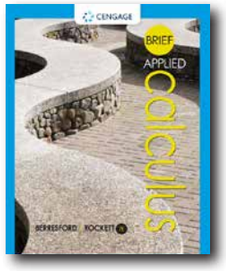

This applied calculus text uses intriguing real-world applications to show you the interesting and practical side of calculus. The book's many applications are related to finance, business, and such general-interest topics as learning curves in airplane production, the age of the Dead Sea Scrolls, Apple and Oracle stock prices, the distance traveled by sports cars, lives saved by seat belts, and the cost of a congressional victory. The Seventh Edition maintains the hallmark features that have made BRIEF APPLIED CALCULUS so popular: contemporary and interesting applications; careful and effective use of technology, including graphing calculator and spreadsheet coverage; constant learning reinforcement through section summaries, chapter summaries, annotated examples, and extra practice problems; Just-in-Time algebra review material; and a variety of exercises that allow you to practice and hone your problem-solving skills.

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APPLIED CALCULUS FOR THE MANAGERIAL, LIFE, AND SOCIAL SCIENCES, 10E

A Brief Approach

Soo T. Tan, Stonehill College

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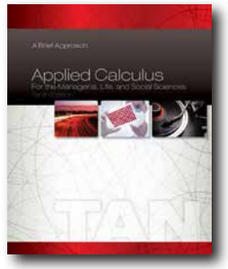

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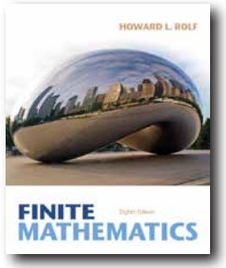

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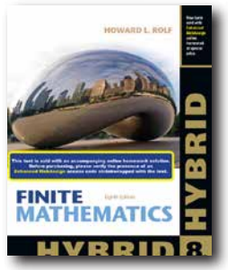

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COLLEGE ALGEBRA AND CALCULUS, 2E

An Applied Approach

Ron Larson, The Pennsylvania State University, The Behrend College; Anne V. Hodgkins, Phoenix College

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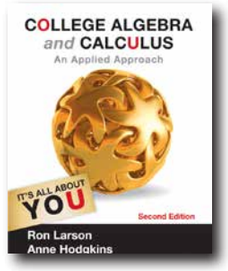

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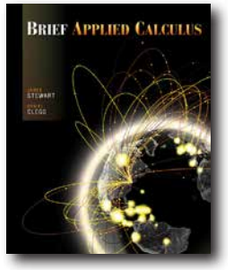

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CALCULUS CONCEPTS, 5E

An Informal Approach to the Mathematics of Change

Donald R. LaTorre, Clemson University; John W. Kenelly, Clemson University; Iris B. Reed, Clemson University; Laurel R. Carpenter

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This innovative text features a graphing calculator approach, incorporating real-life applications and such technology as graphing utilities and Excel® spreadsheets to help students learn mathematical skills that they will use in their lives and careers. The texts overall goal is to improve learning of basic calculus concepts by involving students with new material in a way that is different from traditional practice. The development of conceptual understanding coupled with a commitment to make calculus meaningful to the student are guiding forces. Targeted toward students majoring in liberal arts, economics, business, management, and the life and social sciences, the text's focus on technology along with its use of real data and situations make it a sound choice to help you develop an intuitive, practical understanding of concepts.

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PRINCIPLES OF TOPOLOGY

Fred H. Croom, The University of the South

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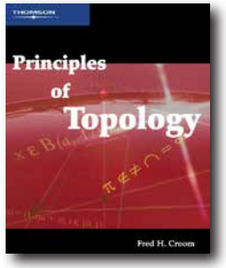

This text presents the fundamental principles of topology rigorously but not abstractly. It emphasizes the geometric nature of the subject and the applications of topological ideas to geometry and mathematical analysis. The usual topics of point-set topology, including metric spaces, general topological spaces, continuity, topological equivalence, basis, sub-basis, connectedness , compactness, separation properties, metrization, subspaces, product spaces, and quotient spaces are treated in this text. Most of the factual information about topology presented in this text is stated in the theorems and illustrated in the accompanying examples, figures and exercises. This book contains many exercises of varying degrees of difficulty. The notation used in this text is reasonably standard; a list of symbols with definitions appears on the front end-sheets. This text is designed for a one-semester introduction to topology at the undergraduate and beginning graduate levels. It is accessible to junior mathematics majors who have studied multivariable calculus.

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INTRODUCTORY STATISTICS

INTRODUCTION TO STATISTICS AND DATA ANALYSIS (WITH JMP PRINTED ACCESS CARD), 5E

Roxy Peck, California Polytechnic State University, San Luis Obispo; Chris Olsen; Jay L. Devore, California Polytechnic State University, San Luis Obispo

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INTRODUCTION TO STATISTICS AND DATA ANALYSIS introduces you to the study of statistics and data analysis by using real data and attention-grabbing examples. The authors guide you through an intuition-based learning process that stresses interpretation and communication of statistical information. Simple notation--including frequent substitution of words for symbols--helps you grasp concepts and cement your comprehension. You'll also find coverage of various technologies as a problem-solving tool, plus hands-on activities in each chapter that allow you to practice statistics firsthand.

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

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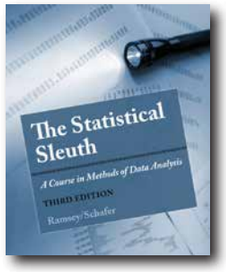

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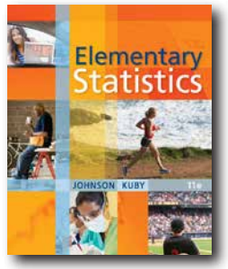

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INTRODUCTION TO STATISTICS AND DATA ANALYSIS, 4E

Roxy Peck, California Polytechnic State University, San Luis Obispo; Chris Olsen; Jay L. Devore, California Polytechnic State University, San Luis Obispo

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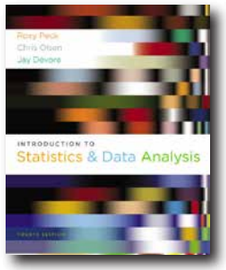

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STATISTICS, 7E

The Exploration & Analysis of Data

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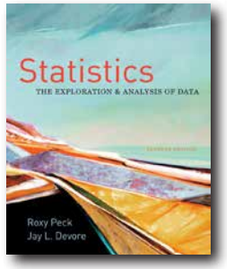

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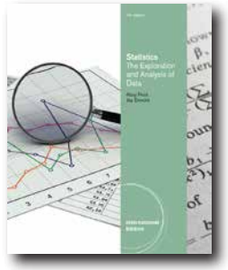

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STATISTICS, INTERNATIONAL EDITION, 10E

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

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Enhanced by online resources, this thorough, yet accessible program is designed to help students overcome their apprehensions about statistics, providing guidance and informal advice while showing the links between statistics and the world.

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STATISTICS, INTERNATIONAL EDITION, 4E

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

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By sparking students' curiosity and explaining topics in the context of interesting, useful examples and case studies, STATISTICS, 4e, International Edition helps students develop a conceptual understanding of statistical ideas and shows how to find meaning in data.

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STUDENT SOLUTIONS MANUAL FOR JOHNSON/KUBY'S ELEMENTARY STATISTICS, 11TH, 11E

Robert R. Johnson, Monroe Community College; Patricia J. Kuby

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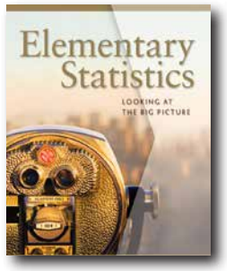

Many statistics books can teach you statistical techniques, but how do all tie together, and how do you know which technique to apply in a given situation? Using a successfully class-tested approach that gives coherence to a broad range of introductory topics, this innovative text helps you make sense of it all by providing you with a real-world, big picture view of statistics. Author Nancy Pfenning organizes content around four basic processes of statistics: producing data, displaying and summarizing data, understanding probability, and performing statistical inference. Within this framework, the book explains the five basic situations involving values of variables (quantitative, categorical, or a blend) that you will encounter. As a result, you will learn to identify which situation applies and how to choose the correct display, summary, or inference tool. As you gain proficiency in specific statistical techniques, the author also points out connections among topics and techniques to help you gain a perspective on statistics as a whole. More than 1,000 real-life examples and categorized exercises support the approach, engaging you in practicing and developing a variety of skills.

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INTRODUCTION TO STATISTICS AND DATA ANALYSIS, ENHANCED REVIEW EDITION (WITH CENGAGENOW PRINTED ACCESS CARD), 3E

Roxy Peck, California Polytechnic State University, San Luis Obispo; Chris Olsen; Jay L. Devore, California Polytechnic State University, San Luis Obispo

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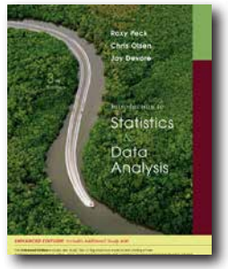

Traditional in structure yet modern in approach, this text uses real data and attention-grabbing examples to guide students through the study of statistics and data analysis.

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INTRODUCTION TO STATISTICS AND DATA ANALYSIS (WITH JMP PRINTED ACCESS CARD), 5E

Roxy Peck, California Polytechnic State University, San Luis Obispo; Chris Olsen; Jay L. Devore, California Polytechnic State University, San Luis Obispo

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INTRODUCTION TO STATISTICS AND DATA ANALYSIS introduces you to the study of statistics and data analysis by using real data and attention-grabbing examples. The authors guide you through an intuition-based learning process that stresses interpretation and communication of statistical information. Simple notation--including frequent substitution of words for symbols--helps you grasp concepts and cement your comprehension. You'll also find coverage of various technologies as a problem-solving tool, plus hands-on activities in each chapter that allow you to practice statistics firsthand.

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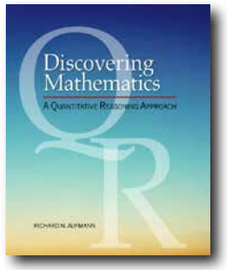

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MATHEMATICAL EXCURSIONS, 4E

Richard N. Aufmann, Palomar College; Joanne S. Lockwood, Nashua Community College; Richard D. Nation, Palomar College; Daniel K. Clegg, Palomar College

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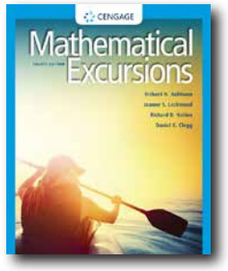

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Karl Smith, Santa Rosa Junior College

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MATHEMATICS, 8E

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David B. Johnson, Diablo Valley College; Thomas A. Mowry

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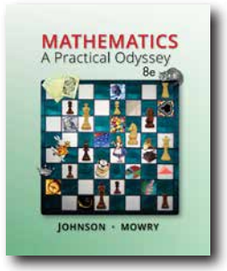

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MATHEMATICAL EXCURSIONS, ENHANCED EDITION, 3RD, 3E

Richard N. Aufmann, Palomar College; Joanne S. Lockwood, Nashua Community College; Richard D. Nation, Palomar College; Daniel K. Clegg, Palomar College

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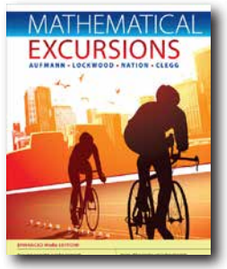

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Daniel L. Timmons, Alamance Community College; Catherine W. Johnson, Alamance Community College; Sonya M. McCook, Alemance Community College

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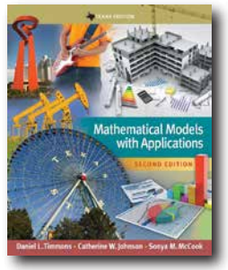

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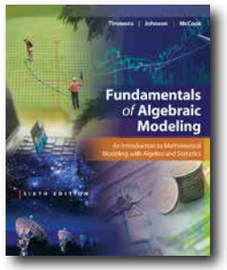

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Ignacio Bello, University of South Florida; Anton Kaul, California Polytechnic State University; Jack R. Britton, Late of University of South Florida

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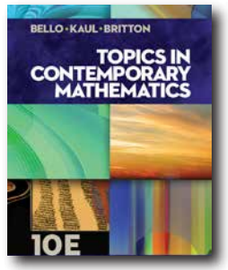

Written for the Math for Liberal Arts course, TOPICS IN CONTEMPORARY MATHEMATICS helps you see math at work in the world by presenting problem solving in purposeful and meaningful contexts. Many of the problems in the text demonstrate how math relates to subjects--such as sociology, psychology, business, and technology. Available with InfoTrac® Student Collections http://gocengage.com/infotrac.

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Solutions of First-Degree (linear) Sentences. Graphs of Algebraic Sentences. Sentences Involving Absolute Values. Quadratic Equations. Modeling and Problem Solving. Ratio, Proportion, and Variation. 7. FUNCTIONS AND GRAPHS. Graphing Relations and Functions. Linear Functions, Relations, and Applications. Slopes and Equations of a Line. Quadratic Functions and Their Graphs. Exponential and Logarithmic Functions. Two Linear Equations in Two Variables. Linear Inequalities. Linear Programming. 8. GEOMETRY. Points, Lines, Planes, and Angles. Triangles and Other Polygons. Perimeter and Circumference. Area Measure and the Pythagorean Theorem. Volume and Surface Area. Networks, Non-Euclidean Geometry, and Topology. Right Triangle Trigonometry. Chaos and Fractals. 9. MATHEMATICAL SYSTEMS. Clock and Modular Arithmetic. Abstract Mathematical Systems: Groups and Fields. Game Theory. 10. COUNTING TECHNIQUES. The Sequential Counting Principle (SCP): A Problem-Solving Tool. Permutations. Combinations. Miscellaneous Counting Methods. 11. PROBABILITY. Sample Spaces and Probability. Counting Techniques and Probability. Computations of Probabilities. Conditional Probability. Independent Events. Odds and Mathematical Expectation. 12. STATISTICS. Sampling, Frequency Distributions, and Graphs. Measures of Central Tendency: The Mean, Median, and Mode. Measures of Dispersion: The Range and Standard Deviation. The Normal Distribution: A Problem-Solving Tool. Statistical Graphs: A Problem-Solving Tool. Making Predictions: Linear Regression. Scattergrams and Correlation. 13. YOUR MONEY AND YOUR MATH. Interest, Taxes, and Discounts. Credit Cards and Consumer Credit. Annual Percentage Rate (APR) and the Rule of 78. Buying a House. Investing in Stocks, Bonds, and Mutual Funds. 14. VOTING AND APPORTIONMENT. Voting Systems. Voting Objections. Apportionment Methods. Apportionment Objections. 15. GRAPH THEORY. Introduction to Graph Theory. Euler Paths and Euler Circuits. Hamilton Paths and Hamilton Circuits. Trees.

MATHEMATICS, 10E

Its Power and Utility

Karl Smith, Santa Rosa Junior College

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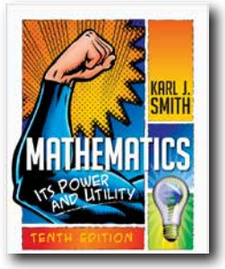

Intimidated by mathematics? This book will help to ease your anxiety and build your confidence. MATHEMATICS: ITS POWER AND UTILITY, Tenth Edition, combines a unique and simple practical focus on real-world problem solving allowing you to appreciate the beauty and value of math while mastering the basic concepts and skills you will need to apply to your daily life. The first half of the book explores the POWER and historic impact of mathematics, and helps you harness that power by developing an effective approach to problem solving. The second half builds upon this foundation by exploring the UTILITY and application of math concepts to a wide variety of real-life situations: such as money management; handling of credit cards; inflation; purchase of a car or home; the effective use of probability, statistics, and surveys; and many other topics of interest. MATHEMATICS: ITS POWER AND UTILITY, Tenth Edition, assumes a basic working knowledge of arithmetic, making it approachable even if you have no exposure to algebra or little confidence in your current math skills.

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Part I: FOUNDATIONS: THE POWER OF MATHEMATICS. 1. Arithmetic, Calculators, and Problem Solving. Math Anxiety. Formulating the Problem. Fractions and Decimals. Rounding and Estimation. Exponents and Prime Factorization. Common Fractions. Adding and Subtracting Fractions. Hindu-Arabic Numeration System. Different Numeration System. Summary and Review. 2. Sets of Numbers. Symbol Shock. Addition of Integers. Subtraction of Integers. Multiplication of Integers. Division of Integers. Rational and Irrational Numbers. Summary and Review. 3. Introduction to Algebra. Polynomials. Similar Terms. Simplification. Equations. Solving Equations. Problem Solving with Algebra. Inequalities. Summary and Review. 4. Percents and Problem Solving. Ratio and Proportion. Problem Solving with Proportions. Percent. Problem Solving with Percents. Summary and Review. 5. Introduction to Geometry. Euclidean Geometry. Angles and Polynomials. Triangles. Similar Triangles. Summary and Review. 6. Measurement and Problem Solving. Precision, Accuracy, and Estimation. Perimeter. Area. Volume and Capacity. Miscellaneous Measurements. Converting Units. Summary and Review. Part II: APPLICATIONS: THE UTILITY OF MATHEMATICS. 7. Applications of Percent. Discount, Sale Price, and Sales Tax. Simple Interest. Buying on Credit. Credit Card Interest. Compound Interest. Buying a Home. Summary and Review. 8. Sets and Logic. Introduction to Sets. Set Relationship. Operations with Sets. Venn Diagrams. Survey Problems Using Sets. Inductive and Deductive Reasoning. Connectives and Truth Tables. Summary and Review. 9. Probability. Introduction to Probability. Probability Models. Odds and Conditional Probability. Mathematical Expectation. Summary and Review. 10 Statistics. Frequency Distribution and Graphs. Measures of Central Tendency. Measures of Position. Measures of Dispersion. The Normal Curve and Sampling. Summary and Review. 11. Graphs. Cartesian Coordinate System. Functions. Lines. Systems and Inequalities. Graphing Curves. Summary and Review.

PRACTICAL PROBLEMS IN MATHEMATICS FOR DRAFTING AND CAD, 4E

John Larkin; Concetta Duval

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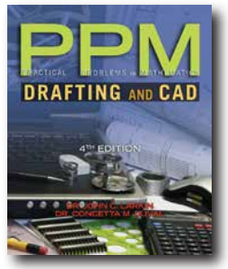

Designed to enhance your math skills in the field of drafting, this completely updated fourth edition of Practical Problems in Mathematics For Drafting and CAD presents a comprehensive overview of contemporary drafting problems, CAD drawings, and industry applications and practices. This text provides a variety of integrated math problems and CAD operations in order to facilitate critical thinking, problem solving, and basic mathematics literacy. Filled with real-world applications and designed to cover a range of skills and levels of difficulty, the fourth edition includes updated figures, illustrations, problem sets, examples, and solutions in order to give you the skills you need to succeed in the field of drafting.

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MATHEMATICS FOR EDUCATION

MATHEMATICS FOR ELEMENTARY SCHOOL TEACHERS, 7E

Tom Bassarear, Keene State College; Meg Moss, Western Governors University

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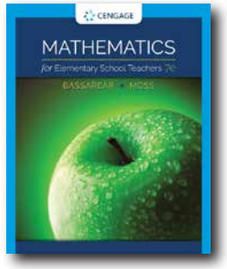

MATHEMATICS FOR ELEMENTARY SCHOOL TEACHERS, 7th Edition, helps students develop a deep understanding of the math they will be teaching as elementary school teachers. Examples, investigations, and explorations demonstrate that there are many paths to solving a problem, and that sometimes problems have more than one solution. The text's conversational style, images, and illustrations help students "see" and master the math concepts being taught.

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MATHEMATICAL PRACTICES, MATHEMATICS FOR TEACHERS

Activities, Models, and Real-Life Examples

Ron Larson, The Pennsylvania State University, The Behrend College; Robyn Silbey

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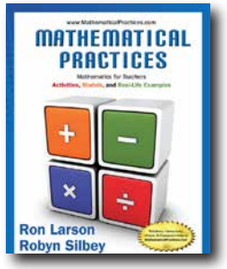

To become a successful mathematics teacher, you must first become a successful mathematics student. Ron Larson and Robyn Silbey's first edition of MATHEMATICAL PRACTICES, MATHEMATICS FOR TEACHERS: ACTIVITIES, MODELS, AND REAL-LIFE EXAMPLES helps you aspire to be the best educator you can be. Peruse the book and you'll find Classroom Activities integrated into each section; modeling Examples that ask you how to model math concepts in the classroom; real-life Examples that model math concepts you will encounter in your everyday lives; and finally, to frame Ron and Robyn's approach, Common Core State Standards relevant to each lesson to provide you as a future teacher with the knowledge of what your students should know at various grade levels.

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MATHEMATICS FOR ELEMENTARY SCHOOL TEACHERS

A Process Approach

Mark A. Freitag

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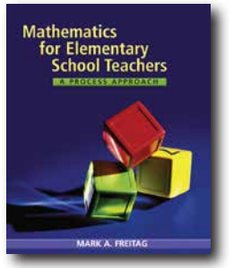

Freitag's MATHEMATICS FOR ELEMENTARY SCHOOL TEACHERS: A PROCESS APPROACH was developed using the five Content Standards from the NCTM Principles and Standards for School Mathematics, and the Common Core State Standards for Mathematics. Traditionally, textbooks for pre-service elementary teachers have focused on problem solving. However, problem solving is not the only process through which mathematics is learned. It is also learned through mathematical reasoning, communication, representation, and connections. Recent trends in mathematics education now advocate implementing all five processes as a vital part of learning and doing mathematics. Consequently, you need to have concrete experiences with these processes that you will be required to teach. The goal of this textbook is to treat each of the processes equitably by using an approach in which the five processes serve as the central pedagogical theme. Most of the examples, exercises, and activities are designed to either model the processes or to directly engage you in working with them. As a result, you will not only come to understand the different processes, but also appreciate them as an integral to learning and doing mathematics. If this broader view can be instilled, you are more likely to give your students a more well-rounded and holistic view of mathematics once you enter the classroom. The content of the book is directly related to the mathematics that is taught in grades K – 8. The purpose is not to reteach elementary mathematics. Rather, the intent is to look at the content from a theoretical or generalized point of view, so that you can better understand the concepts and processes behind the mathematics you will teach. In short, the book focuses on the "why" behind the mathematics in addition to the "how." Available with InfoTrac® Student Collections http://gocengage.com/infotrac.

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1. MATHEMATICAL PROCESSES. Getting Started: The NCTM Process Standards. Communication Through Mathematical Representations. Inductive Reasoning and Patterns. Deductive Reasoning and Proof. Mathematical Problem Solving. Problem Solving with Different Strategies. Chapter 1 Review. Answers to Check Your Understandings and Activities. 2. SETS. Getting Started: Sets in the Classroom. Set Basics. Set Operations. Chapter 2 Review. Answers to Chapter 2 Check Your Understandings and Activities. 3. NUMBERS AND NUMERATION. Getting Started: Numbers and Numeration in the Classroom. A Brief History of Numeration. The Hindu-Arabic or Decimal System. Other Base Numeration Systems. Chapter 3 Review. Answers to Chapter 3 Check Your Understandings and Activities. Reviewing the Big Ideas Chapters 1-3. 4. WHOLE-NUMBER COMPUTATION. Getting Started: Whole-Number Computation in the Classroom. Understanding Whole-Number Addition and Subtraction. Adding and Subtracting Large Numbers. Understanding Whole-Number Multiplication and Division. Multiplying and Dividing Large Numbers. Computation in Base b. Chapter 4 Review. Answers to Chapter 4 Check Your Understandings and Activities. 5. BASIC NUMBER THEORY. Getting Started: Number Theory in the Classroom. Divisibility, Primes, and Composites. Greatest Common Factors and Least Common Multiples. Modular and Clock Arithmetic. Chapter 5 Review. Answers to Chapter 5 Check Your Understandings and Activities. 6. THE INTEGERS. Getting Started: Integers in the Classroom. Integer Basics, Addition, and Subtraction. Integer Multiplication and Division. Chapter 6 Review. Answers to Chapter 6 Check Your Understandings and Activities. Reviewing the Big Ideas Chapters 4-6. 7. FRACTIONS AND THE RATIONAL NUMBERS. Getting Started: Fractions and the Rational Numbers in the Classroom. Fractions and the Set of Rational Numbers. Adding and Subtracting Rational Numbers. Multiplying and Dividing Rational Numbers. Chapter 7 Review. Answers to Check Your Understandings and Activities. 8. DECIMALS, REAL NUMBERS, AND PROPORTIONAL REASONING. Getting Started: Decimals and Proportional Reasoning in the Classroom. Decimals and the Real Numbers. Decimal and Real Number Operations. Proportional Reasoning. Percents. Chapter 8 Review. Answers to Chapter 8 Check Your Understandings and Activities. 9. ALGEBRAIC THINKING. Getting Started: Algebraic Thinking in the Classroom. Numerical Sequences. Functions and Their Representations. Linear Functions and Constant Change. Solving Equations and Inequalities. Algebraic Thinking and Mathematical Modeling. Chapter 9 Review. Answers to Chapter 9 Check You Understandings and Activities. Reviewing the Big Ideas Chapters 7-9. 10. GEOMETRICAL SHAPES. Getting Started: Geometrical Shapes in the Classroom. Lines, Planes, and Angles. Triangles. Quadrilaterals, Polynomials, and Circles. Geometric Surfaces and Solids. Chapter 10 Review. Answers to Chapter 10 Check Your Understandings and Activities. 11. CONGRUENCE, SIMILARITY, AND CONSTRUCTIONS. Getting Started: Congruence, Constructions, and Similarity in the Classroom. Congruent Shapes. Similar Shapes. Basic Geometrical Constructions. Constructing Shapes. Chapter 11 Review. Answers to Chapter 11 Check Your Understandings and Activities. 12. COORDINATE AND TRANSFORMATION GEOMETRY IN THE CLASSROOM. Getting Started: Coordinate and Transformation Geometry in the Classroom. Coordinate Geometry. Transformations. Congruence, Similarity, and Symmetry with Transformations. Geometric Patterns. Chapter 12 Review. Answers to Chapter 12 Check Your Understandings and Activities. Reviewing the Big Ideas Chapters 10-12. 13. MEASUREMENT. Getting Started: Measurement in the Classroom. Length and the Measurement Process. Perimeter and Area. Surface Area. Volume. Other Measures. Chapter 13 Review. Answers to Chapter 13 Check Your Understandings and Activities. 14. STATISTICAL THINKING. Getting Started: Statistical Thinking in the Classroom. Formulating Questions and Collecting Data. Representing and Analyzing Data with Statistical Graphs. Representing and Analyzing Data with Descriptive Statistics. Abuse of Statistics. Chapter 14 Review. Answers to Chapter 14 Check Your Understandings and Activities. 15. PROBABILITY. Getting Started: Probability in the Classroom. Experimental Probability and Making Predictions from Data. Theoretical Probability. Conditional and Geometric Probability, Odds, and Expected Value. Counting Techniques and Probability. Chapter 15 Review. Answers to Chapter 15 Check Your Understandings and Activities. Reviewing the Big Ideas Chapters 13-15.

MATHEMATICS FOR ELEMENTARY SCHOOL TEACHERS

Ricardo Fierro, California State University, San Marcos

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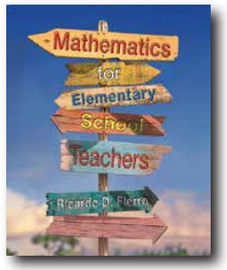

Mathematics for Elementary School Teachers is designed to give you a profound understanding of the mathematical content that you are expected to know and be able to teach. The chapters integrate the National Council of Teachers of Mathematics (NCTM) Standards and Expectations and the new Common Core State Standards, as well as research literature. The five NCTM Process Standards of problem solving, reasoning and proof, communication, connections, and representation highlight ways that teachers present content, the ways that students learn content, and various ways that students can demonstrate procedural and conceptual understanding. The worked examples and homework questions provide prospective elementary school teachers with opportunities to develop mathematical knowledge, understanding, and skills that they can apply in their own classrooms effectively. The learning path begins with the "Where Are We Going?" Chapter Openers, worked Examples with Yellow Markers that indicate the Process Standards throughout the text, to the Concept Maps, to the Section Question Sets with their "refreshers" of Process Standards, to the Chapter Organizers with Learning Outcomes and a list of the corresponding Review Questions, and finally, conclude at the Chapter Tests with their overarching Learning Outcomes.

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POST-CALCULUS

A FIRST COURSE IN DIFFERENTIAL EQUATIONS WITH MODELING APPLICATIONS, 11E

Dennis G. Zill, Loyola Marymount University

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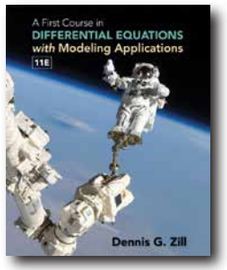

Straightforward and easy to read, A FIRST COURSE IN DIFFERENTIAL EQUATIONS WITH MODELING APPLICATIONS, 11th Edition, gives you a thorough overview of the topics typically taught in a first course in differential equations. Your study of differential equations and its applications will be supported by a bounty of pedagogical aids, including an abundance of examples, explanations, "Remarks" boxes, definitions, and MindTap Math – an available option which includes an online version of the book, lecture videos, a pre-course assessment, and more.

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A FIRST COURSE IN DIFFERENTIAL EQUATIONS WITH MODELING APPLICATIONS, INTERNATIONAL METRIC EDITION, 11E

Dennis G. Zill, Loyola Marymount University

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Straightforward and easy to read, A FIRST COURSE IN DIFFERENTIAL EQUATIONS WITH MODELING APPLICATIONS, 11E, INTERNATIONAL METRIC EDITION, gives you a thorough overview of the topics typically taught in a first course in differential equations. Your study of differential equations and its applications will be supported by a bounty of pedagogical aids, including an abundance of examples, explanations, "Remarks" boxes, and definitions.

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DIFFERENTIAL EQUATIONS WITH BOUNDARY-VALUE PROBLEMS, 9E

Dennis G. Zill, Loyola Marymount University

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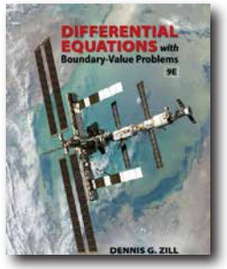

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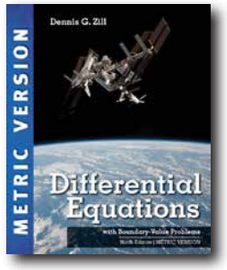

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Joseph A. Gallian, University of Minnesota, Duluth

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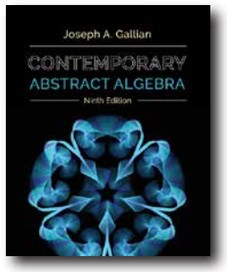

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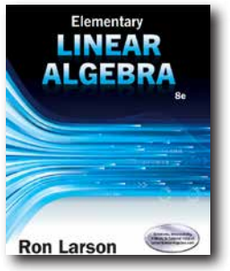

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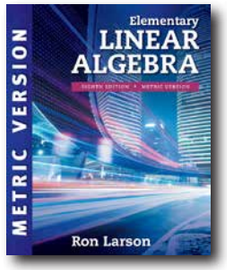

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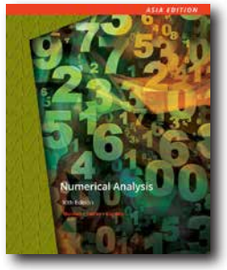

This well-respected text introduces the theory and application of modern numerical approximation techniques to students taking a one- or two-semester course in numerical analysis. Providing an accessible treatment that only requires a calculus prerequisite, the authors explain how, why, and when approximation 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 math, computing, engineering, and physical science disciplines. The first book of its kind when crafted more than 30 years ago to serve a diverse undergraduate audience, Burden, Faires, and Burden's NUMERICAL ANALYSIS remains the definitive introduction to a vital and practical subject.

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Richard L. Burden, Youngstown State University; J. Douglas Faires; Annette M. Burden

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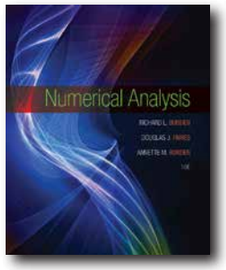

This well-respected text introduces you to the theory and application of modern numerical approximation techniques. Providing an accessible treatment that only requires a calculus prerequisite, the authors explain how, why, and when approximation techniques can be expected to work-and why, in some situations, they fail. A wealth of examples and exercises develop your intuition, and demonstrate the subject's practical applications to important everyday problems in math, computing, engineering, and physical science disciplines. Three decades after it was first published, NUMERICAL ANALYSIS remains the definitive introduction to a vital and practical subject.

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A TRANSITION TO ADVANCED MATHEMATICS, 8E

Doug Smith, University of North Carolina at Wilmington; Maurice Eggen, Trinity University; Richard St. Andre, Central Michigan University

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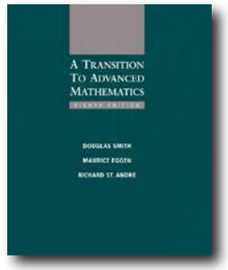

A TRANSITION TO ADVANCED MATHEMATICS helps you bridge the gap between calculus and advanced math courses. The most successful text of its kind, the 8th edition continues to provide a firm foundation in major concepts needed for continued study and guides you to think and express yourself mathematically—to 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 your 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. You will come away with a solid intuition for the types of mathematical

reasoning you'll need to apply in later courses and a better understanding of how mathematicians of all kinds approach and solve problems. You will be exposed to a large number of examples and exercises that allow you to practice developing the skills needed to help them write and think like a mathematician.

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1. Logic and Proofs. 2. Sets and Induction. 3. Relations and Partitions. 4. Functions. 5. Cardinality. 6. Concepts of Algebra. 7. Concepts of Analysis Appendix. Answers to selected exercises. Index.

ELEMENTS OF MODERN ALGEBRA, 8E

Linda Gilbert, University of South Carolina, Upstate

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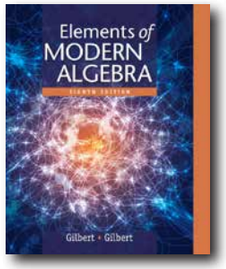

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ELEMENTS OF MODERN ALGEBRA, 8E

Linda Gilbert, University of South Carolina, Upstate

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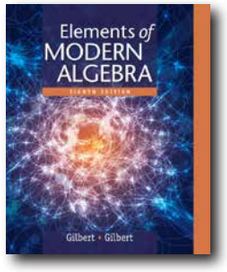

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LINEAR ALGEBRA, 4E

A Modern Introduction

David Poole, Trent University

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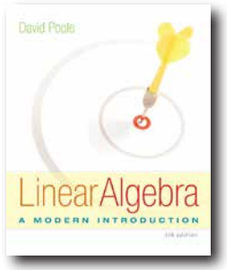

David Poole's innovative LINEAR ALGEBRA: A MODERN INTRODUCTION, 4e emphasizes a vectors approach and better prepares you to make the transition from computational to theoretical mathematics. Balancing theory and applications, the book is written in a conversational style and combines a traditional presentation with a focus on student-centered learning. Theoretical, computational, and applied topics are presented in a flexible yet integrated way. Stressing geometric understanding before computational techniques, vectors and vector geometry are introduced early to help you visualize concepts and develop mathematical maturity for abstract thinking. Additionally, the book includes ample applications drawn from a variety of disciplines to show you that linear algebra is a valuable tool for modeling real-life problems.

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A FIRST COURSE IN MATHEMATICAL MODELING, 5E

Frank R. Giordano; William P. Fox; Steven B. Horton

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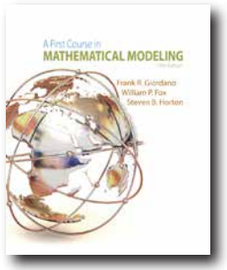

Offering a solid introduction to the entire modeling process, A FIRST COURSE IN MATHEMATICAL MODELING, 5th Edition delivers an excellent balance of theory and practice, and gives you relevant, hands-on experience developing and sharpening your modeling skills. Throughout, the book emphasizes key facets of modeling, including creative and empirical model construction, model analysis, and model research, and provides myriad opportunities for practice. The authors apply a proven six-step problem-solving process to enhance your problem-solving capabilities -- whatever your level. In addition, rather than simply emphasizing the calculation step, the authors first help you learn how to identify problems, construct or select models, and figure out what data needs to be collected. By involving you in the mathematical process as early as possible -- beginning with short projects -- this text facilitates your progressive development and confidence in mathematics and modeling.

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1. Modeling Change. 2. The Modeling Process, Proportionality, and Geometric Similarity. 3. Model Fitting. 4. Experimental Modeling. 5. Simulation Modeling. 6. Discrete Probabilistic Modeling. 7. Optimization of Discrete Models. 8. Modeling with Graph Theory. 9. Modeling with Decision Theory. 10. Game Theory. 11. Modeling with a Differential Equation. 12. Modeling with Systems of Differential Equations. 13. Optimization of Continuous Modeling. 14. Dimensional Analysis and Similitude. 15. Graphs of Functions as Models. Appendix A: Problems from the Mathematics Contest in Modeling, 1985-2007. Appendix B: An Elevator Simulation Model. Appendix C: The Revised Simplex Method. Appendix D. Brief Review of Integration Techniques.

A FIRST COURSE IN DIFFERENTIAL EQUATIONS WITH MODELING APPLICATIONS, INTERNATIONAL METRIC EDITION, 10E

Dennis G. Zill, Loyola Marymount University

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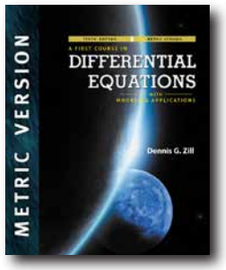

A FIRST COURSE IN DIFFERENTIAL EQUATIONS WITH MODELING APPLICATIONS, 10E, INTERNATIONAL METRIC EDITION strikes a balance between the analytical, qualitative, and quantitative approaches to the study of differential equations. Beginning engineering and math students like you benefit from this accessible text's wealth of pedagogical aids, including an abundance of examples, explanations, "Remarks" boxes, definitions, and group projects. Written in a straightforward, readable, and helpful style, the book provides you with a thorough treatment of boundary-value problems and partial differential equations.

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MODELING WITH FIRST-ORDER DIFFERENTIAL EQUATIONS. Linear Models. Nonlinear Models. Modeling with Systems of First-Order Differential Equations. Chapter 3 in Review. 4. HIGHER-ORDER DIFFERENTIAL EQUATIONS. Preliminary Theory-Linear Equations. Reduction of Order. Homogeneous Linear Equations with Constant Coefficients. Undetermined Coefficients-Superposition Approach. Undetermined Coefficients-Annihilator Approach. Variation of Parameters. Cauchy-Euler Equation. Solving Systems of Linear Differential Equations by Elimination. Nonlinear Differential Equations. Chapter 4 in Review. 5. MODELING WITH HIGHER-ORDER DIFFERENTIAL EQUATIONS. Linear Models: Initial-Value Problems. Linear Models: Boundary-Value Problems. Nonlinear Models. Chapter 5 in Review. 6. SERIES SOLUTIONS OF LINEAR EQUATIONS. Review of Power Series Solutions About Ordinary Points. Solutions About Singular Points. Special Functions. Chapter 6 in Review. 7. LAPLACE TRANSFORM. Definition of the Laplace Transform. Inverse Transform and Transforms of Derivatives. Operational Properties I. Operational Properties II. Dirac Delta Function. Systems of Linear Differential Equations. Chapter 7 in Review. 8. SYSTEMS OF LINEAR FIRST-ORDER DIFFERENTIAL EQUATIONS. Preliminary Theory. Homogeneous Linear Systems. Nonhomogeneous Linear Systems. Matrix Exponential. Chapter 8 in Review. 9. NUMERICAL SOLUTIONS OF ORDINARY DIFFERENTIAL EQUATIONS. Euler Methods. Runge-Kutta Methods. Multistep Methods. Higher-Order Equations and Systems. Second-Order Boundary-Value Problems. Chapter 9 in Review. Appendix I: Gamma Function. Appendix II: Matrices. Appendix III: Laplace Transforms. Answers for Selected Odd-Numbered Problems.

ABSTRACT ALGEBRA, 3E

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Thomas W. Hungerford, Cleveland State University

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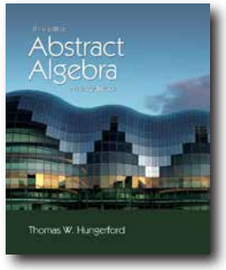

Abstract Algebra: An Introduction is set apart by its thematic development and organization. The chapters are organized around two themes: arithmetic and congruence. Each theme is developed first for the integers, then for polynomials, and finally for rings and groups. This enables students to see where many abstract concepts come from, why they are important, and how they relate to one another. New to this edition is a "groups first" option that enables those who prefer to cover groups before rings to do so easily.

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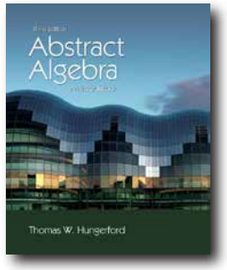

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DIFFERENTIAL EQUATIONS WITH BOUNDARY VALUE PROBLEMS, INTERNATIONAL METRIC EDITION, 8E

Dennis G. Zill, Loyola Marymount University; Warren S. Wright

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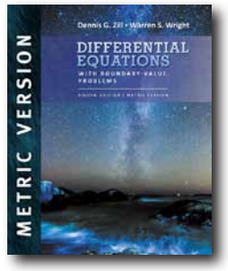

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NUMERICAL MATHEMATICS AND COMPUTING, 7E

E. Ward Cheney, University of Texas at Austin; David R. Kincaid, University of Texas at Austin

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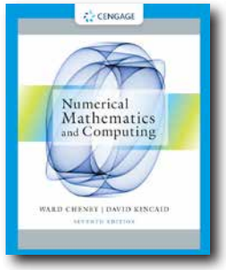

Authors Ward Cheney and David Kincaid show students of science and engineering the potential computers have for solving numerical problems and give them ample opportunities to hone their skills in programming and problem solving. NUMERICAL MATHEMATICS AND COMPUTING, 7th Edition also helps students learn about errors that inevitably accompany scientific computations and arms them with methods for detecting, predicting, and controlling these errors.

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E. Ward Cheney, University of Texas at Austin; David R. Kincaid, University of Texas at Austin

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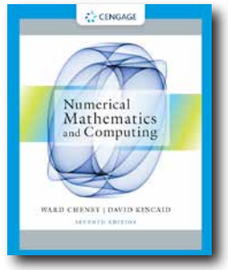

Authors Ward Cheney and David Kincaid show students of science and engineering the potential computers have for solving numerical problems and give them ample opportunities to hone their skills in programming and problem solving. NUMERICAL MATHEMATICS AND COMPUTING, 7th Edition also helps students learn about errors that inevitably accompany scientific computations and arms them with methods for detecting, predicting, and controlling these errors.

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INTRODUCTION TO ADVANCED MATHEMATICS

A Guide to Understanding Proofs

Connie M. Campbell, Millsaps College

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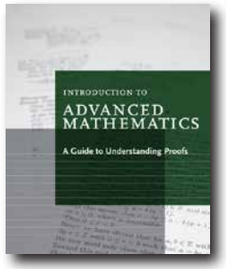

This text offers a crucial primer on proofs and the language of mathematics. Brief and to the point, it lays out the fundamental ideas of abstract mathematics and proof techniques that students will need to master for other math courses. Campbell presents these concepts in plain English, with a focus on basic terminology and a conversational tone that draws natural parallels between the language of mathematics and the language students communicate in every day. The discussion highlights how symbols and expressions are the building blocks of statements and arguments, the meanings they convey, and why they are meaningful to mathematicians. In-class activities provide opportunities to practice mathematical reasoning in a live setting, and an ample number of homework exercises are included for self-study. This text is appropriate for a course in Foundations of Advanced Mathematics taken by students who've had a semester of calculus, and is designed to be accessible to students with a wide range of mathematical proficiency. It can also be used as a self-study reference, or as a supplement in other math courses where additional proofs practice is needed.

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DIFFERENTIAL EQUATIONS (WITH DE TOOLS PRINTED ACCESS CARD), 4E

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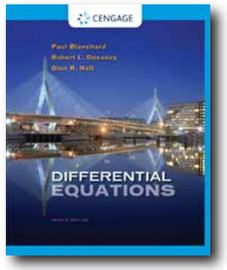

Incorporating an innovative modeling approach, this text for a one-semester differential equations course emphasizes conceptual understanding to help students relate information taught in the classroom to real-world experiences. Going beyond a traditional emphasis on technique, the authors focus on understanding how differential equations are formulated and interpreting their meaning to applied models from a variety of disciplines. A three-pronged qualitative, numeric, and analytic approach stresses visualizing differential equations geometrically, utilizing the latest computational technology to investigate the behavior of solutions, and predicting the behavior of solutions as they apply to models. The presentation weaves various points of view together so students become adept at moving between different representations to solve nonlinear differential equations equally well as traditional linear equations. Certain models reappear throughout the text as running themes to synthesize different concepts from multiple angles, and a dynamical systems focus emphasizes predicting the long-term behavior of these recurring models. Students will discover how to identify and harness the mathematics they will use in their careers, and apply it effectively outside the classroom.

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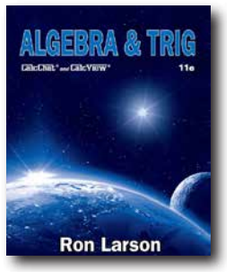

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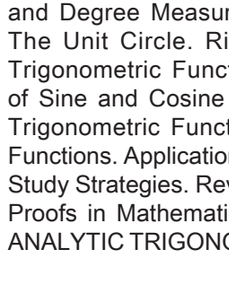

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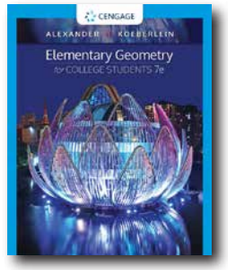

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PRECALCULUS, 13E

Functions and Graphs

Earl Swokowski, late of Marquette University; Jeffery Cole, Anoka-Ramsey Community College

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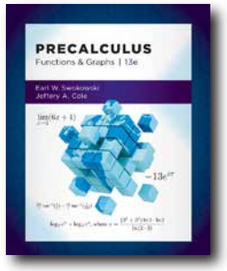

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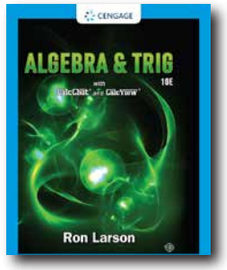

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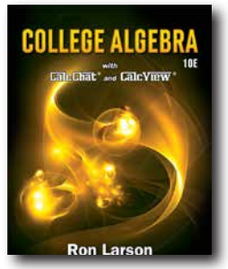

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FUNCTIONS AND CHANGE, 6E

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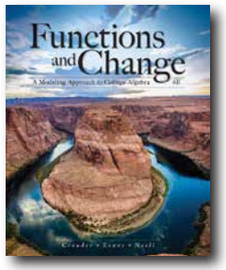

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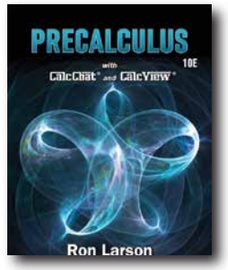

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PRECALCULUS WITH LIMITS, 4E

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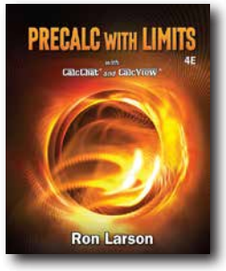

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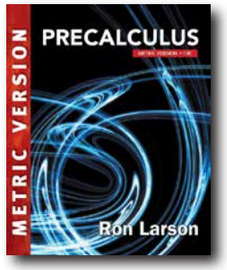

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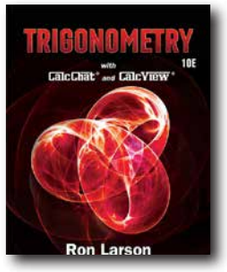

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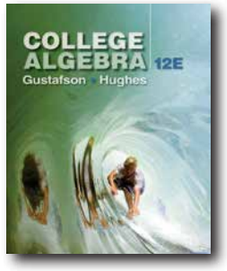

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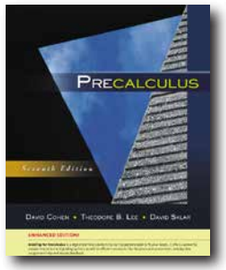

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PRECALCULUS: MATHEMATICS FOR CALCULUS, INTERNATIONAL METRIC EDITION, 7E

James Stewart, McMaster University; Lothar Redlin, Pennsylvania State University, Abington Campus; Saleem Watson, California State University, Long Beach

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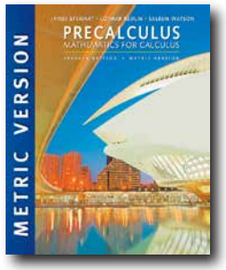

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TRIGONOMETRY, 8E

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

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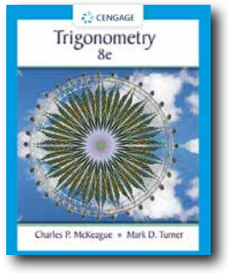

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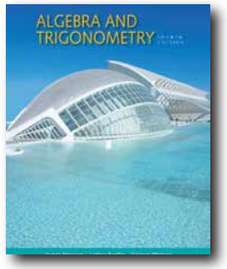

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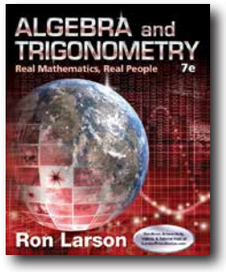

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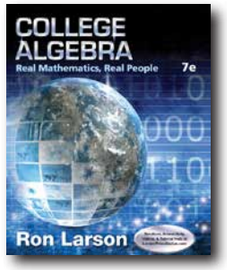

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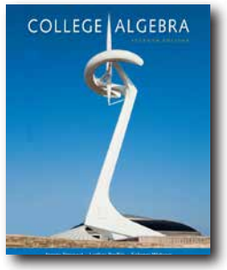

Learn to think mathematically and develop genuine problem-solving skills with COLLEGE ALGEBRA, Seventh Edition. This straightforward and easy-to-use book will help you learn the fundamentals of algebra in a variety of practical ways. The book features new tools to help you succeed, such as learning objectives before each section to prepare you for what you're about to learn, and a list of formulas and key concepts after each section that help reinforce what you've learned. In addition, the book includes many real-world examples that show you how mathematics is used to model in fields like engineering, business, physics, chemistry, and biology.

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PRECALCULUS, 7E

Real Mathematics, Real People

Ron Larson, The Pennsylvania State University, The Behrend College

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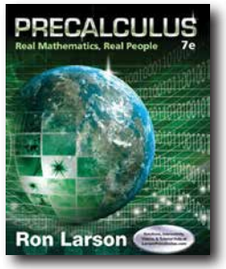

Ideal for courses that require the use of a graphing calculator, PRECALCULUS: REAL MATHEMATICS, REAL PEOPLE, 7th Edition, features quality exercises, interesting applications, and innovative resources to help you succeed. Carefully written and accessible, the book includes examples with detailed solutions that begin and end on the same page, which maximizes readability. Similarly, side-by-side solutions show algebraic, graphical, and numerical representations of the mathematics to support a variety of learning styles. Selected examples include notations directing you to previous sections where you can review concepts and skills needed to master the material at hand. Throughout the book, you'll find interesting real-world examples and meet real people who use mathematics in their profession—demonstrating the relevance of mathematics in your life and future career.

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Mathematics for Calculus

James Stewart, McMaster University; Lothar Redlin, Pennsylvania State University, Abington Campus; Saleem Watson, California State University, Long Beach

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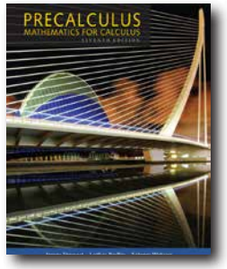

This bestselling author team explains concepts simply and clearly, without glossing over difficult points. Problem solving and mathematical modeling are introduced early and reinforced throughout, providing students with a solid foundation in the principles of mathematical thinking. Comprehensive and 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. The authors' attention to detail and clarity—the same as found in James Stewart's market-leading Calculus text—is what makes this text the proven market leader.

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ALGEBRA AND TRIGONOMETRY, 8E

Richard N. Aufmann, Palomar College; Richard D. Nation, Palomar College

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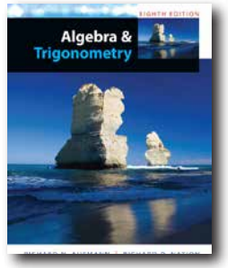

Accessible to students, COLLEGE ALGEBRA AND TRIGONOMETRY, Eighth Edition, incorporates the dynamic link between concepts and applications to bring mathematics to life. By integrating interactive learning techniques, the Aufmann author team helps students to better understand concepts, work independently, and obtain greater mathematical fluency. The text also includes technology features to accommodate courses that allow the option of using graphing calculators. The authors' proven Aufmann Interactive Method allows students to try a skill as it is presented in example form. This interaction between the examples and Try Exercises serves as a checkpoint to students as they read the textbook, do their homework, or study a section. 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.

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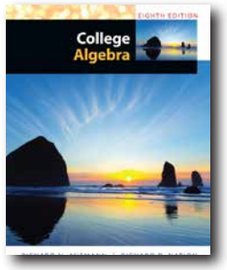

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PRECALCULUS, 3E

A Concise Course

Ron Larson, The Pennsylvania State University, The Behrend College

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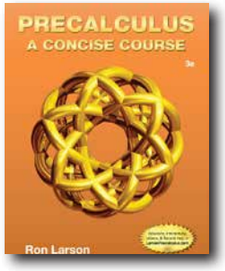

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COLLEGE ALGEBRA, 8E

Jerome E. Kaufmann, Western Illinois University (Retired); Karen L. Schwitters, Seminole Community College

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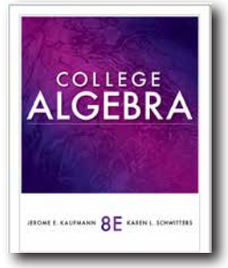

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COLLEGE ALGEBRA

A Make it Real Approach

Frank Wilson, Chandler-Gilbert Community College; Scott L. Adamson, Chandler-Gilbert Community College; Trey Cox, Chandler-Gilbert Community College; Alan E. O'Bryan, Arizona State University

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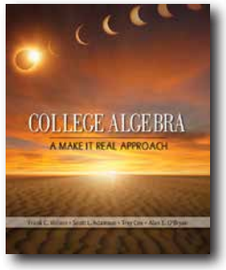

When learning mathematics, have you ever asked yourself, "When am I ever going to use this?" If you have--and even if you haven't--this book will help you learn the mathematical concepts behind the procedures, and discover how to apply quantitative thinking in your daily lives. COLLEGE ALGEBRA: A MAKE IT REAL APPROACH doesn't simply "wrap" a real-world situation around a mathematical concept or procedure. Instead, you'll be immersed in familiar real-world contexts--from parking rates and the higher winter incidence of the flu to Egyptian pyramids--that will help you understand mathematical ideas intuitively. One student commented, "It's like having the teacher standing over my shoulder explaining things to me." With this text as your guide, your comment about college algebra will likely be, "Yes, I get it!"

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COLLEGE ALGEBRA AND CALCULUS, 2E

An Applied Approach

Ron Larson, The Pennsylvania State University, The Behrend College; Anne V. Hodgkins, Phoenix College

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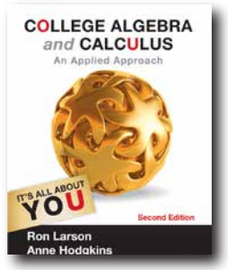

COLLEGE ALGEBRA AND CALCULUS: AN APPLIED APPROACH, Second Edition provides you a comprehensive resource for your college algebra and applied calculus courses. The mathematical concepts and applications are consistently presented in the same tone and pedagogy to promote confidence and a smooth transition from one course to the next. The consolidation of content for two courses in a single text also saves you the cost of an extra textbook.

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COLLEGE ALGEBRA WITH APPLICATIONS FOR BUSINESS AND LIFE SCIENCES, 2E

Ron Larson, The Pennsylvania State University, The Behrend College; Anne V. Hodgkins, Phoenix College

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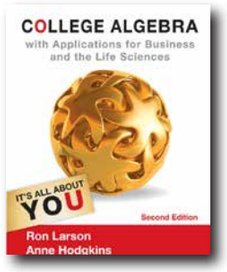

If you have struggled in previous algebra courses (and even if you haven't), COLLEGE ALGEBRA WITH APPLICATIONS FOR BUSINESS AND LIFE SCIENCES, Second Edition, can help you succeed in your college algebra course. The authors provide you with a firm foundation in algebraic concepts, and guide you in applying your understanding to relevant examples and applications you are likely to encounter in college or in your career. If your instructor chooses, you'll also learn how to use graphing technology as a tool for problem solving and for review or retention.

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PRECALCULUS

Karla Neal, Louisiana State University; R. David Gustafson, Rock Valley College (Emeritus); Jeff Hughes, Hinds Community College

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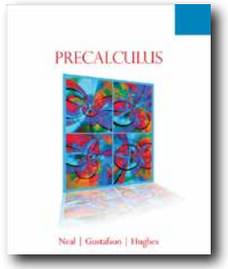

Although you may not be thinking about calculus yet, your success in that course will depend on how well equipped you are with prerequisite skills when you take the leap. PRECALCULUS prepares you to step into calculus with confidence, having been written by teachers who have taught both courses and seen where students like you need help--and where other texts have come up short. The text features precise definitions and exposition, carefully crafted pedagogy, and a strong emphasis on the functions you will need to understand and use in calculus. A Looking Ahead to Calculus feature in each chapter gives you an interesting glimpse into calculus, showing you precisely how important and relevant precalculus topics are to your future coursework. The varied examples and exercises include many that encourage you to use and understand graphs, as opposed to simply draw them, providing additional sound preparation for calculus.

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TRIGONOMETRY, 2E

James Stewart, McMaster University; Lothar Redlin, Pennsylvania State University, Abington Campus; Saleem Watson, California State University, Long Beach

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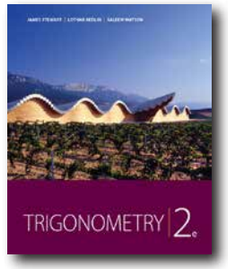

TRIGONOMETRY is designed to help you learn to "think mathematically." With this text, you can stop relying on merely memorizing facts and mimicking examples—and instead develop true, lasting problem-solving skills. Clear and easy to read, TRIGONOMETRY illustrates how trigonometry is used and applied to real life, and helps you understand and retain what you learn in class.

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PARAMETRIC EQUATIONS. Polar Coordinates. Graphs of Polar Equations. Polar Form of Complex Numbers; DeMoivre's Theorem. Plane Curves and Parametric Equations. Focus on Modeling: The Path of a Projectile. 6. VECTORS IN TWO AND THREE DIMENSIONS. Vectors in Two Dimensions. The Dot Product. Three-Dimensional Coordinate Geometry. Vectors in Three Dimensions. The Cross Product. Equations of Lines and Planes. Focus on Modeling: Vector Fields. 7. CONIC SECTIONS. Parabolas. Ellipses. Hyperbolas. Shifted Conics. Rotation of Axes. Polar Equations of Conics. Focus on Modeling: Conics in Architecture. 8. EXPONENTIAL AND LOGARITHMIC FUNCTIONS. Exponential Functions. The Natural Exponential Function. Logarithmic Functions. Laws of Logarithms. Exponential and Logarithmic Equations. Modeling with Exponential and Logarithmic Functions. Damped Harmonic Motion. Focus on Modeling: Fitting Exponential and Power Curves to Data. APPENDIX A: Algebra Review. Real Numbers. Exponents and Radicals. Algebraic Expressions. Equations. Inequalities. APPENDIX B: Geometry Review. Congruence and Similarity of Triangles. The Pythagorean Theorem. APPENDIX C: Graphing Calculators. Using a Graphing Calculator. Solving Equations and Inequalities Graphically.

ALGEBRA AND TRIGONOMETRY WITH ANALYTIC GEOMETRY, 13E

Earl W. Swokowski, late of Marquette University; Jeffery A. Cole, Anoka-Ramsey Community College

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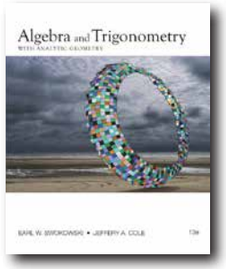

Clear explanations, an uncluttered and appealing layout, and examples and exercises featuring a variety of real-life applications have made this text popular among students year after year. This latest edition of Swokowski and Cole's ALGEBRA AND TRIGONOMETRY WITH ANALYTIC GEOMETRY retains these features. The problems have been consistently praised for being at just the right level for precalculus students like you. The book also provides calculator examples, including specific keystrokes that show you how to use various graphing calculators to solve problems more quickly. Perhaps most important--this book effectively prepares you for further courses in mathematics.

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CALCULUS I WITH PRECALCULUS, 3E

Ron Larson, The Pennsylvania State University, The Behrend College

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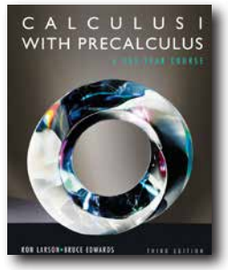

CALCULUS I WITH PRECALCULUS, brings you up to speed algebraically within precalculus and transition into calculus. The Larson Calculus program has been widely praised by a generation of students and professors for its solid and effective pedagogy that addresses the needs of a broad range of teaching and learning styles and environments. Each title is just one component in a comprehensive calculus course program that carefully integrates and coordinates print, media, and technology products for successful teaching and learning. One primary objective guided the authors in writing this book: to develop precise, readable materials for students that clearly define and demonstrate concepts and rules of calculus.

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P. PREREQUISITES. Solving Equations. Solving Inequalities. Graphical Representation of Data. Graphs of Equations. Linear Equations in Two Variables. 1. FUNCTIONS AND THEIR GRAPHS. Functions. Analyzing Graphs of Functions. Transformations of Functions. Combinations of Functions: Composite Functions. Inverse Functions. Mathematical Modeling and Variation. 2. POLYNOMIAL AND RATIONAL FUNCTIONS. Quadratic Functions and Models. Polynomial Functions of Higher Degree. Polynomial and Synthetic Division. Complex Numbers. The Fundamental Theorem of Algebra. Rational Functions. 3. LIMITS AND THEIR PROPERTIES. A Preview of Calculus. Finding Limits Graphically and Numerically. Evaluating Limits Analytically. Continuity and One-Sided Limits. Infinite Limits. 4. DIFFERENTIATION The Derivative and the Tangent

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PRECALCULUS, 5E

J. Douglas Faires; James DeFranza, St. Lawrence University

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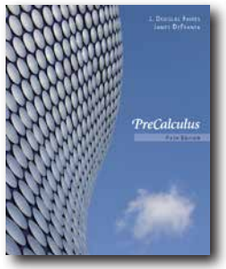

Make the grade with PRECALCULUS and its accompanying technology! With a focus on teaching just the essentials, this streamlined mathematics text provides you with the fundamentals necessary to be successful in this course--and your future calculus course. Exercises and examples are presented in the same way that you will encounter them in calculus, familiarizing you with concepts you'll use again, and giving you the head start that will help you succeed. In-text study aids further help you master concepts.

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COLLEGE ALGEBRA

Concepts and Contexts

James Stewart, McMaster University; Lothar Redlin, Pennsylvania State University, Abington Campus; Saleem Watson, California State University, Long Beach; Phyllis Panman

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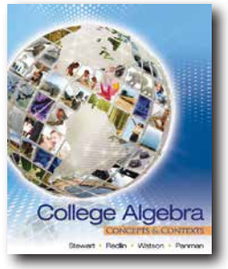

This text will help you to understand algebra in a variety of ways. The text, the exercises, and the explorations all emphasize the connection between real-world data and algebraic models. For your convenience, all basic algebra skills are included in a set of "Algebra Toolkits" that you can review whenever you need to—these too underscore the role of algebra as a tool for modeling and explaining the real world.

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1. DATA, FUNCTIONS, AND MODELS. Making Sense of Data. Visualizing Relationships in Data. Equations: Describing Relationships in Data. Functions: Describing Change. Function Notation: The Concept of Function as a Rule. Working with Functions: Graphs and Graphing Calculators. Working with Functions: Getting Information from the Graph. Working with Functions: Modeling Real-World Relationships. Making and Using Formulas. Concept Check and Review. EXPLORATION 1: Bias in Presenting Data. EXPLORATION 2: Collecting and Analyzing Data. EXPLORATION 3: Every Graph Tells a Story. 2. LINEAR FUNCTIONS AND MODELS. Working with Functions: Average Rate of Change. Linear Functions: Constant Rate of Change. Equations of Lines: Making Linear Models. Varying the Coefficients: Direct Proportionality. Linear Regression: Fitting Lines to Data. Linear Equations: Getting Information from a Model. Linear Equations: Where Lines Meet. Concept Check and Review. EXPLORATION 1: When Rates of Change. EXPLORATION 2: Linear Patterns.

EXPLORATION 3: Bridge Science. EXPLORATION 4: Correlation and Causation. EXPLORATION 5: Fair Division of Assets. 3. EXPONENTIAL FUNCTIONS AND MODELS. Exponential Growth and Decay. Exponential Models: Comparing Rates. Comparing Linear and Exponential Growth. Graphs of Exponential Functions. Fitting Exponential Curves to Data. Concept Check and Review. EXPLORATION 1: Extreme Numbers: Scientific Notation. EXPLORATION 2: So You Want to be a Millionaire? EXPLORATION 3: Linear Patterns. EXPLORATION 4: Modeling Radioactivity with Coins and Dice. 4. LOGARITHMS AND EXPONENTIAL MODELS. Logarithmic Functions. Laws of Logarithms. Logarithmic Scales. The Natural Exponential and Logarithmic Functions. Exponential Equations: Getting Information from Model. Working With Functions: Composition and Inverse. Concept Check and Review. EXPLORATION 1: Super Origami. EXPLORATION 2: Orders of Magnitude. EXPLORATION 3: Semi-Log Graphs. EXPLORATION 4: The Even-Tempered Clavier. 5. QUADRATIC FUNCTIONS AND MODELS. Working with Functions: Shifting and Stretching. Quadratic Functions and their Graphs. Maxima and Minima: Getting Information from a Model. Quadratic Equations: Getting Information from a Model. Fitting Quadratic Curves to Data. Concept Check and Review. EXPLORATION 1: Transformation Stories. EXPLORATION 2: Toricelli's Law. EXPLORATION 2: Quadratic Patterns. 6. POWER, POLYNOMIAL, AND RATIONAL FUNCTIONS. Working with Functions: Algebraic Operations. Power Functions: Positive Powers. Polynomial Functions: Combining Power Functions. Fitting Power and Polynomial Curves to Data. Power Functions: Negative Powers. Rational Functions. Concept Check and Review. EXPLORATION 1: Only in the Movies? EXPLORATION 2: Proportionality: Shape and Size. EXPLORATION 3: Managing Traffic. EXPLORATION 4: Alcohol and the Surge Function. 7. SYSTEMS OF EQUATIONS AND CATEGORICAL DATA. Systems of Linear Equations in Two Variables. Systems of Linear Equations in Several Variables. Using Matrices to Solve Systems of Linear Equations. Matrices and Categorical Data. Matrix Operations: Getting Information from Data. Matrix Equations: Solving a Linear System. Concept Check and Review. EXPLORATION 1: Collecting Categorical Data. EXPLORATION 2: Will the Species Survive? ALGEBRA TOOLKIT A: WORKING WITH NUMBERS. Numbers and Their Properties. The Number Line and Intervals. Integer Exponents. Radicals and Rational Exponents. ALGEBRA TOOLKIT B: WORKING WITH EXPRESSIONS. Combining Algebraic Expressions. Factoring Algebraic Expressions. Rational Expressions. ALGEBRA TOOLKIT C: WORKING WITH EQUATIONS. Solving Basic Equations. Solving Quadratic Equations. Solving Basic Inequalities. ALGEBRA TOOLKIT D: WORKING WITH GRAPHS. The Coordinate Plane. Graphs of Two-Variable Equations. Using a Graphing Calculator. Solving Equations and Inequalities Graphically.

BASIC GEOMETRY FOR COLLEGE STUDENTS, 2E

An Overview of the Fundamental Concepts of Geometry

Alan S. Tussy, Citrus College; R. David Gustafson, Rock Valley College (Emeritus)

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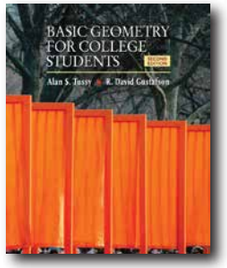

Intended to address the need for a concise overview of fundamental geometry topics. Sections 1-7 introduce such topics as angles, polygons, perimeter, area, and circles. In the second part of the text, Sections 8-11 cover congruent and similar triangles, special triangles, volume, and surface area.

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1. Basic Geometric Figures. 2. More about Angles. 3. Parallel and Perpendicular Lines. 4. Triangles. 5. Quadrilaterals and Other Polygons. 6. Perimeters and Areas of Polygons. 7. Circles. Cumulative Review Problems. 8. Congruent Triangles and Similar. Triangles. 9. The Pythagorean Theorem and Special Triangles. 10. Volume. 11. Surface Area. Cumulative Review Exercises. Appendix I. Inductive and Deductive Reasoning. Appendix II. Answers to Selected Exercises.

CONTEMPORARY PRECALCULUS, 5E

A Graphing Approach

Thomas W. Hungerford, Cleveland State University; Douglas J. Shaw, University of Northern Iowa

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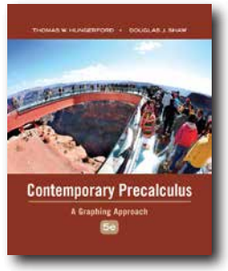

Respected for its detailed guidance in using technology, CONTEMPORARY PRECALCULUS: A GRAPHING APPROACH, Fifth Edition, is written from the ground up to be used with graphing calculators that you may be using in your precalculus course. You'll appreciate that the text has also long been recognized for its careful, thorough explanations and its presentation of mathematics in an informal yet mathematically precise manner. The authors also emphasize the all-important "why?" of mathematics--which is addressed in both the exposition and in the exercise sets by focusing on algebraic, graphical, and numerical perspectives.

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1. BASICS. The Real Number System. Special Topics: Decimal Representation of Real Numbers. Solving Equations Algebraically. Special Topics: Absolute Value Equations. Special Topics: Variation. The Coordinate Plane. Lines. Discovery Project: Modeling the Real World with Lines. 2. GRAPHS AND TECHNOLOGY. Graphs. Solving Equations Graphically and Numerically. Applications of Equations. Optimization Applications. Linear Models. Discovery Project: Supply and Demand. 3. FUNCTIONS AND GRAPHS. Functions. Function Notation. Graphs of Functions. Special Topics: Graph Reading. Graphs and Transformations. Special Topics: Symmetry. Operations on Functions. Rates of Change. Inverse Functions. Discovery Project: Feedback: Good and Bad. 4. POLYNOMIAL AND RATIONAL FUNCTIONS. Quadratic Functions. Polynomial Functions. Special Topics:

Synthetic Division. Real Roots of Polynomials. Graphs of Polynomial Functions. Special Topics: Polynomial Models. Rational Functions. Special Topics: Other Rational Functions. Polynomial and Rational Inequalities. Special Topics: Absolute Value Inequalities. Complex Numbers. Theory of Equations. Discovery Project: Architectural Arches. 5. EXPONENTIAL AND LOGARITHMIC FUNCTIONS. Radicals and Rational Exponents. Special Topics: Radical Equations. Exponential Functions. Special Topics: Compound Interest and the Number e. Common and Natural Logarithmic Functions. Properties of Logarithms. Special Topics: Logarithmic Functions to Other Bases. Algebraic Solutions of Exponential and Logarithmic Equations. Exponential, Logarithmic, and Other Models. Discovery Project: Exponential and Logistic Modeling of Diseases. 6. TRIGONOMETRIC FUNCTIONS. Angles and Their Measurement. The Sine, Cosine, and Tangent Functions. Alternate: The Sine, Cosine, and Tangent Functions. Algebra and Identities. Basic Graphs. Periodic Graphs and Simple Harmonic Motion. Special Topics: Other Trigonometric Graphs. Other Trigonometric Functions. Discovery Project: Pistons and Flywheels. 7. TRIGONOMETRIC IDENTITIES AND EQUATIONS. Basic Identities and Proofs. Addition and Subtraction Identities. Special Topics: Lines and Angles. Other Identities. Inverse Trigonometric Functions. Trigonometric Equations. Discovery Project: The Sun and the Moon. 8. TRIANGLE TRIGONOMETRY. Trigonometric Functions of Angles. Alternate: Trigonometric Functions of Angles. Applications of Right Triangle Trigonometry. The Law of Cosines. The Law of Sines. Special Topics: The Area of a Triangle. Discovery Project: Life on a Sphere. 9. APPLICATIONS OF TRIGONOMETRY. The Complex Plane and Polar Form for Complex Numbers. DeMoivre s Theorem and nth Roots of Complex Numbers. Vectors in the Plane. The Dot Product. Discovery Project: Surveying. 10. ANALYTIC GEOMETRY. Circles and Ellipses. Hyperbolas. Parabolas. Rotations and Second-Degree Equations. Special Topics: Rotation of Axes. Plane Curves and Parametric Equations. Polar Coordinates. Polar Equations of Conics. Discovery Project: Designing Machines to Make Designs. 11. SYSTEMS OF EQUATIONS. Systems of Linear Equations in Two Variables. Special Topics: Systems of Nonlinear Equations. Large Systems of Linear Equations. Matrix Methods for Square Systems. Discovery Project: Input-Output Analysis. 12. DISCRETE ALGEBRA. Sequences and Sums. Arithmetic Sequences. Geometric Sequences. Special Topics: Infinite Series. The Binomial Theorem. Mathematical Induction. Discovery Project: Taking Your Chances. 13. LIMITS AND CONTINUITY. Limits of Functions. Properties of Limits. Special Topics: The Formal Definition of Limit. Continuity. Limits Involving Infinity. Discovery Project: Black Holes.

COLLEGE TRIGONOMETRY, 6E

Richard N. Aufmann, Palomar College; Vernon C. Barker, Palomar College; Richard D. Nation, Palomar College

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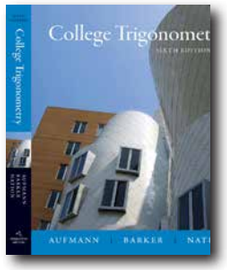

Accessible to students and flexible for instructors, College Trigonometry, Sixth Edition, uses the dynamic link between concepts and applications to bring mathematics to life. By incorporating interactive learning techniques, the Aufmann team helps students to better understand concepts, work independently, and obtain greater mathematical fluency. The text also includes technology features to accommodate courses that allow the option of using graphing calculators. Additional program components that support student success include Eduspace tutorial practice, online homework, SMARTHINKING Live Online Tutoring, and Instructional DVDs.The authors' proven Aufmann Interactive Method allows students to try a skill as it is presented in example form. This interaction between the examples and Try Exercises serves as a checkpoint to students as they read the textbook, do their homework, or study a section. In the Sixth Edition, Review Notes are featured more prominently throughout the text to help students recognize the key prerequisite skills needed to understand new concepts.

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ALGEBRA AND TRIGONOMETRY WITH ANALYTIC GEOMETRY, 13E

Earl W. Swokowski, late of Marquette University; Jeffery A. Cole, Anoka-Ramsey Community College

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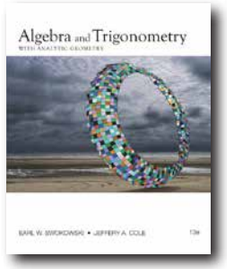

Clear explanations, an uncluttered and appealing layout, and examples and exercises featuring a variety of real-life applications have made this text popular among students year after year. This latest edition of Swokowski and Cole's ALGEBRA AND TRIGONOMETRY WITH ANALYTIC GEOMETRY retains these features. The problems have been consistently praised for being at just the right level for precalculus students like you. The book also provides calculator examples, including specific keystrokes that show you how to use various graphing calculators to solve problems more quickly. Perhaps most important--this book effectively prepares you for further courses in mathematics.

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Every chapter ends with Review Exercises, Discussion Exercises, and a Chapter Test. 1. FUNDAMENTAL CONCEPTS OF ALGEBRA. Real Numbers. Exponents and Radicals. Algebraic Expressions. Fractional Expressions. 2. EQUATIONS AND INEQUALITIES. Equations. Applied Problems. Quadratic Equations. Complex Numbers. Other Types of Equations. Inequalities. More on Inequalities. 3. FUNCTIONS AND GRAPHS. Rectangular Coordinate Systems. Graphs of Equations. Lines. Definition of Function. Graphs of Functions. Quadratic Functions. Operations on Functions. 4. POLYNOMIAL AND RATIONAL FUNCTIONS. Polynomial Functions of Degree Greater than 2. Properties of Division. Zeros of Polynomials. Complex and Rational Zeros of Polynomials. Rational Functions. Variation. 5. INVERSE, EXPONENTIAL, AND LOGARITHMIC FUNCTIONS. Inverse Functions. Exponential Functions. The Natural Exponential Function. Logarithmic Functions. Properties of Logarithms. Exponential and Logarithmic Equations. 6. THE TRIGONOMETRIC FUNCTIONS. Angles. Trigonometric Functions of Angles. Trigonometric Functions of Real Numbers. Values of Trigonometric Functions. Trigonometric Graphs. Additional Trigonometric Graphs. Applied Problems. 7. ANALYTIC TRIGONOMETRY. Verifying Trigonometric Identities. Trigonometric Equations. The Addition and Subtraction Formulas. Multiple-Angle Formulas. Product-to-Sum and Sum-to-Product Formulas. The Inverse Trigonometric Functions. 8. APPLICATIONS OF TRIGONOMETRY. The Law of Sines. The Law of Cosines. Vectors. The Dot Product. Trigonometric Form for Complex Numbers. De Moivre's Theorem and nth Roots of Complex Numbers. 9. SYSTEMS OF EQUATIONS AND INEQUALITIES. Systems of Equations. Systems of Linear Equations in Two Variables. Systems of Inequalities. Linear Programming. Systems of Linear Equations in More than Two Variables. The Algebra of Matrices. The Inverse of a Matrix. Determinants. Properties of Determinants. Partial Fractions. 10. SEQUENCES, SERIES AND PROBABILITY. Infinite Sequences and Summation Notation. Arithmetic Sequences. Geometric Sequences. Mathematical Induction. The Binomial Theorem. Permutations. Distinguishable Permutations and Combinations. Probability. 11. TOPICS FROM ANALYTIC GEOMETRY. Parabolas. Ellipses. Hyperbolas. Plane Curves and Parametric Equations. Polar Coordinates. Polar Equations of Conics. Appendix I: Common Graphs and Their Equations. Appendix II: A Summary of Graph Transformations. Appendix III: Graphs of the Trigonometric Functions and Their Inverses. Appendix IV: Values of the Trigonometric Functions of Special Angles on a Unit Circle.

STATISTICS

INTERMEDIATE/ADVANCED STATISTICS

MULTIVARIATE DATA ANALYSIS, 8E

Joseph F Hair, University of South Alabama; Barry J. Babin, Louisiana Tech University; Rolph E. Anderson, Drexel University; William C. Black

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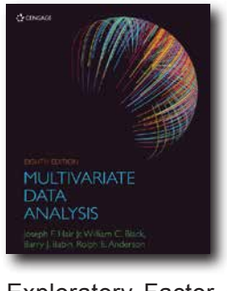

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APPLIED REGRESSION ANALYSIS AND OTHER MULTIVARIABLE METHODS, 5E

David G. Kleinbaum, Emory University; Lawrence L. Kupper, University of North Carolina at Chapel Hill; Azhar Nizam, Emory University; Eli S. Rosenberg, Emory University

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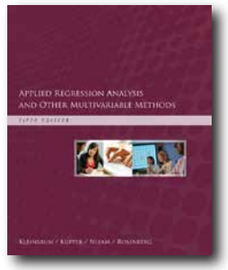

This bestseller will help you learn regression-analysis methods that you can apply to real-life problems. It highlights the role of the computer in contemporary statistics with numerous printouts and exercises that you can solve using the computer. The authors continue to emphasize model development, the intuitive logic and assumptions that underlie the techniques covered, the purposes, advantages, and disadvantages of the techniques, and valid interpretations of those techniques. Available with InfoTrac® Student Collections http://gocengage.com/infotrac.

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ELEMENTARY SURVEY SAMPLING, 7E

Richard L. Scheaffer, University of Florida, Emeritus; William Mendenhall, III, University of Florida, Emeritus; R. Lyman Ott; Kenneth G. Gerow, University of Wyoming

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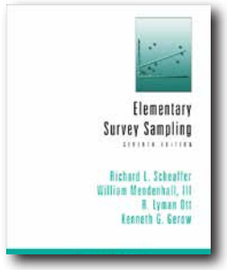

ELEMENTARY SURVEY SAMPLING is an engaging and practical introduction to survey sampling. The first chapters examine how surveys are used in the real world, not just in the classroom. Then, the following chapters begin with a sample survey design or estimation procedure and how it's used to solve practical problems. The descriptions of the formulas, methodologies, and concepts are brief and easy to understand. Next, the authors work out the example in complete detail. Lastly, each chapter is chock-full of helpful exercises that enable you to practice what you've learned and stretch your grasp of the content.

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INTRODUCTORY STATISTICS

STUDENT SOLUTIONS MANUAL FOR RAMSEY/SCHAFER'S THE STATISTICAL SLEUTH: A COURSE IN METHODS OF DATA ANALYSIS, 3RD, 3E

Fred Ramsey, Oregon State University; Daniel Schafer, Oregon State University

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THE STATISTICAL SLEUTH, 3E

A Course in Methods of Data Analysis, International Edition

Fred Ramsey, Oregon State University; Daniel Schafer, Oregon State University

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THE STATISTICAL SLEUTH: A COURSE IN METHODS OF DATA ANALYSIS, 3E, International Edition offers an appealing treatment of general statistical methods that takes full advantage of the computer, both as a computational and an analytical tool. The material is independent of any specific software package, and prominently treats modeling and interpretation in a way that goes beyond routine patterns. The book focuses on a serious analysis of real case studies, strategies and tools of modern statistical data analysis, the interplay of statistics and scientific learning, and the communication of results. With interesting examples, real data, and a variety of exercise types (conceptual, computational, and data problems), the authors will get you excited about statistics.

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THE STATISTICAL SLEUTH, 3E

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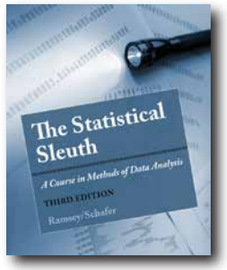

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STATISTICS, 7E

The Exploration & Analysis of Data, International Edition

Roxy Peck, California Polytechnic State University, San Luis Obispo; Jay L. Devore, California Polytechnic State University, San Luis Obispo

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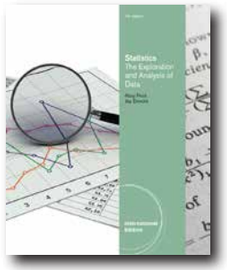

Traditional in structure yet modern in approach, this text uses real data and attention-grabbing examples to guide students through the study of statistics and data analysis.

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NEW EDITION

MIND ON STATISTICS, 6E

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

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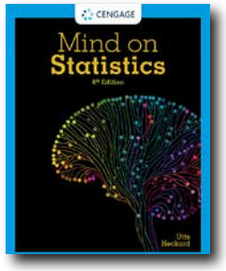

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INTRODUCTION TO PROBABILITY AND STATISTICS METRIC EDITION, 15E

William Mendenhall, University of Florida, 1925-2009; Robert J. Beaver, University of California, Riverside; Barbara M. Beaver, University of California, Riverside, Emerita

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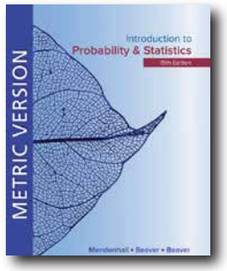

Used by hundreds of thousands of students, INTRODUCTION TO PROBABILITY AND STATISTICS, 15th Edition, Metric Edition gives you a solid understanding of statistical concepts--and their relevance to your everyday life. The new edition combines straightforward explanations with integrated modern technology--including computational software and graphing calculators--to help you master statistical reasoning and skillfully interpret statistical results. Learn how to describe real sets of data, what statistical tests mean in terms of practical application, how to evaluate the validity of the assumptions behind statistical tests, and what to do when statistical assumptions have been violated. Statistics can be an intimidating course, but this text reinforces a common-sense approach to statistical descriptions and procedures and equips you with a firm foundation in statistical concepts and the tools to apply them to the world around you.

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INTRODUCTION TO STATISTICS AND DATA ANALYSIS, 6E

Roxy Peck, California Polytechnic State University, San Luis Obispo; Chris Olsen; Tom Short, West Chester University of Pennsylvania

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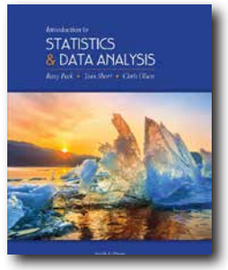

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access to the ebook, assessments and analytics to enable you to be a self-sufficient learner and help you succeed in your course.

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STATISTICS COMPANION

Support for Introductory Statistics

Roxy Peck, California Polytechnic State University, San Luis Obispo; Tom Short, West Chester University of Pennsylvania

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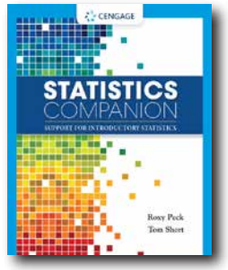

Roxy Peck and Tom Short's STATISTICS COMPANION supports your success in Statistics by providing a review of the necessary Statistics-specific mathematics, study skills, and Statistics-language content. The material you will encounter in the Introductory Statistics course may be new and challenging, but this book and its accompanying resources help build and reinforce the skills you already have--and build upon those skills to help you learn the content of Introductory Statistics. This companion gives you tips for effective studying and a strategy for reading Statistics problems that helps you understand the problem context and interpret results in that context.

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Preface 0. SMART STUDY STRATEGIES: The Learning and Memory Process. The Study Plan for Statistics. Productive Self-Concept through Mindfulness. Putting it all Together. 1. GETTING READY FOR STATISTICS: Numbers and the Number Line—A Quick Review. Rounding Decimal Numbers. Ordering Decimal Numbers. Getting to Know Your Calculator—Order of Operations, Powers of Numbers, Square Roots, and Scientific Notation. 2. CREATING GRAPHICAL DISPLAYS—THE MATH YOU NEED TO KNOW: Review—Rounding Decimal. Numbers, Plotting Points on the Number Line. Selecting an Appropriate Numerical Scale. Intervals and Interval Widths. Proportions, Decimal Numbers, and Percentages. Plotting Points in Two Dimensions. Evaluating Expressions. 3. MEASURES OF CENTER AND VARIABILITY—THE MATH YOU NEED TO KNOW:

Review—Ordering Decimal Numbers, Square Roots, Distance Between Two Points. Variables and Algebraic Expressions. Summation Notation. Deviations from the Mean, Squared Deviations, Sum of Squared Deviations. Evaluating Expressions. 4. DESCRIBING BIVARIATE NUMERICAL DATA—THE MATH YOU NEED TO KNOW: Review—Variables, Scatterplots, Linear and Nonlinear Patterns, z-Scores. Working with Lines. Linear Models and Using a Line to Make Predictions. Deviations from a Line and the Sum of Squared Deviations. The Least Squares Line. Evaluating Expressions. 5. PROBABILITY—THE MATH YOU NEED TO KNOW: Review—Proportions, Decimal Numbers and Percentages, Ordering Decimal Numbers. Sets and Set Notation. Evaluating Expressions. 6. RANDOM VARIABLES AND PROBABILITY DISTRIBUTIONS—THE MATH YOU NEED TO KNOW: Review—Powers of Numbers, Square Roots, Intervals, Proportions, Decimals and Percentages, z-Scores. Random variables. More on Intervals. Equations and Inequalities. Areas Under a Curve. Areas of Rectangles and Areas of Triangles. Solving Simple Equations in One Variable. Working with Factorials (Optional, for those covering the Binomial Distribution). Evaluating Expressions. 7. HOW TO READ A STATISTICS PROBLEM: Chapter Overview. A Strategy for Reading a Statistics Problem. Guided Practice Reading Statistics Problems. On Your Own. 8. ESTIMATING A POPULATION PROPORTION—THE MATH YOU NEED TO KNOW: Evaluating Expressions. Guided Practice—Margin of Error. Guided Practice—Large Sample Confidence Interval for a Population Proportion. Guided Practice—Determining Sample Size. 9. TESTING HYPOTHESES ABOUT A POPULATION PROPORTION—THE MATH YOU NEED TO KNOW: Evaluating Expressions. Guided Practice—Large Sample Hypothesis Test for a Population Proportion. 10. ESTIMATING A DIFFERENCE IN PROPORTIONS—THE MATH YOU NEED TO KNOW: Evaluating Expressions. Guided Practice—Estimating a Difference in Proportions. 11. TESTING HYPOTHESES ABOUT A DIFFERENCE IN PROPORTIONS—THE MATH YOU NEED TO KNOW: Evaluating Expressions. Guided Practice—Testing Hypotheses About a Difference in Proportions. 12. ESTIMATING A POPULATION MEAN—THE MATH YOU NEED TO KNOW: Evaluating Expressions. Guided Practice—Estimating a Population Mean. 13. TESTING HYPOTHESES ABOUT A POPULATION MEAN—THE MATH YOU NEED TO KNOW: Evaluating Expressions. Guided Practice—Testing Hypotheses About a Population Mean. 14. ESTIMATING A DIFFERENCE IN MEANS WITH PAIRED SAMPLES—THE MATH YOU NEED TO KNOW: Evaluating Expressions. Guided Practice— Estimating a Difference in Means with Paired Samples. 15. TESTING HYPOTHESES ABOUT A DIFFERENCE IN MEANS WITH PAIRED SAMPLES—THE MATH YOU NEED TO KNOW: Evaluating Expressions. Guided Practice— Testing Hypotheses About a Difference in Means with Paired Samples. 16. ESTIMATING DIFFERENCE IN MEANS WITH INDEPENDENT SAMPLES—THE MATH YOU NEED TO KNOW: Evaluating Expressions. Guided Practice—Estimating Difference in Means with Independent Samples. 17. TESTING HYPOTHESES ABOUT A DIFFERENCE IN MEANS WITH INDEPENDENT SAMPLES—THE MATH YOU NEED TO KNOW: Evaluating Expressions. Guided Practice—Testing Hypotheses About a Difference in Means with Independent Samples. 18. CHI-SQUARED TESTS—THE MATH YOU NEED TO KNOW: Evaluating Expressions. Guided Practice Chi-Squared Tests. 19. ESTIMATING AND TESTING HYPOTHESES ABOUT THE SLOPE OF A POPULATION REGRESSION LINE—THE MATH YOU NEED TO KNOW: Evaluating Expressions. Guided Practice—Confidence Interval for the Slope of a Population Regression Line. Guided Practice—Testing Hypotheses about the Slope of a Population Regression Line. 20. TESTING HYPOTHESES ABOUT MORE THAN TWO MEANS—THE MATH YOU NEED TO KNOW: Evaluating Expressions. Guided Practice—One-Way Analysis of Variance.

PRESTATISTICS

Don Davis, Lakeland Community College; Bill Armstrong, Lakeland Community College; Mike McCraith, Cuyahoga Community College

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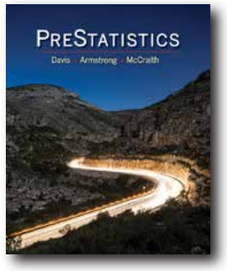

PRESTATISTICS gives you the skills you need to be successful in statistics, whether you are just out of high school or haven't taken a mathematics course in years. Each section in PRESTATISTICS concludes with a paragraph titled "Why We Learned It" that shows you the connection between the topics learned in that section and statistics--and how it will be helpful to you in an introductory statistics course. Nine hundred videos including lectures, example solutions and quick-check exercise walkthroughs enable you to learn the way you want to learn, and WebAssign -- a flexible and fully customizable online solution available with this text--empowers you to prepare for class with confidence

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1. Arithmetic Operations used in Statistics. Rounding Numbers. Types of Numbers and the Number Line. Fractions, Decimals and Percentages. Operations with Fractions. Absolute, Relative and Percent Error. Scientific Notation and E-Notation. Read and Use Mathematical Tables. 2. Algebraic Expressions used in Statistics and Basics of Solving Equations. Translating English into Algebra: Expressions, Equations and Inequalities. Order of Operations and Evaluating Numerical Expressions. Basics of Solving Linear Equations. 3. Equations, Inequalities and Problem-Solving Techniques. Solving Equations used in Statistics. Inequalities, Interval Notation and Plus/Minus Notation. Solving Absolute Value Inequalities. Introduction to Problem Solving. Literal Equations. 4. Graphing Linear Equations in Two Variables. Properties of Rectangular Coordinate System. Interpretation of Graphs. Graphing Linear Equations. Slope and Marginal Change. Equations of Lines in Statistics. 5. Sets, Counting and Sums. Fundamentals of Sets. Cardinality of Sets. Principles of Counting. Writing and Computing Sums. 6. Functions and Area Under Functions. Introduction to Functions. Linear and Piecewise Defined Functions. Area Under a Constant Function. Area Under a Linear Function. 7. Survey of Functions used in Statistics. Exponential and Logarithmic Functions. Rational Exponent and Power Functions. Multivariable Linear Functions.

STATISTICS, 2E

Learning from Data

Roxy Peck, California Polytechnic State University, San Luis Obispo; Tom Short, West Chester University of Pennsylvania

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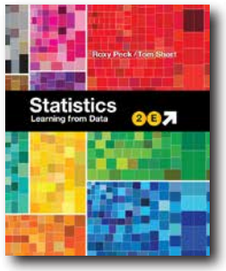

STATISTICS: LEARNING FROM DATA, Second Edition, helps you learn to think like a statistician. It pays particular attention to areas that students often struggle with -- probability, hypothesis testing, and selecting an appropriate method of analysis. Supported by learning objectives, real-data examples and exercises, and technology notes, this book helps you to develop conceptual understanding, mechanical proficiency, and the ability to put knowledge into practice.

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UNDERSTANDING BASIC STATISTICS, 8E

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

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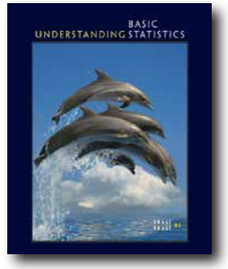

UNDERSTANDING BASIC STATISTICS provides plenty of guidance and informal advice as it demonstrates the links between statistics and the real world. Its reader-friendly approach helps you grasp the concepts and see how they relate to your life. A complete technology package, including JMP® statistical software, gives you the tools you need to practice what you're learning and succeed in the course.

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1. GETTING STARTED. What Is Statistics? Random Samples. Introduction to Experimental Design. 2. ORGANIZING DATA. Frequency Distributions, Histograms, and Related Topics. Bar Graphs, Circle Graphs, and Time-Series Graphs. Stem-and-Leaf Displays. 3. AVERAGES AND VARIATION. Measures of Central Tendency: Mode, Median, and Mean. Measures of Variation. Percentiles and Box-and-Whisker Plots. 4. CORRELATION AND REGRESSION. Scatter Diagrams and Linear Correlation. Linear Regression and the Coefficient of Determination. 5. ELEMENTARY PROBABILITY THEORY. What Is Probability? Some Probability Rules-Compound Events. Trees and Counting Techniques. 6. THE BINOMIAL DISTRIBUTION AND RELATED TOPICS. Introduction to Random Variables and Probability Distributions. Binomial Probabilities. Additional Properties of the Binomial Distribution. 7. NORMAL CURVES AND SAMPLING DISTRIBUTIONS. Part I: Graphs of Normal Probability Distributions. Standard Units and Areas under the Standard Normal Distribution. Areas Under Any Normal Curve. Part II: Sampling

Distributions. The Central Limit Theorem. Normal Approximation to Binomial Distribution and to pˆ Distribution. 8. ESTIMATION. Estimating μ When σ Is Known. Estimating μ When σ Is Unknown. Estimating p in the Binomial Distribution. 9. HYPOTHESIS TESTING. Introduction to Statistical Tests. Testing the Mean μ. Testing a Proportion p. 10. INFERENCES ABOUT DIFFERENCES. Tests Involving Paired Differences (Dependent Samples). Inferences about the Difference of Two Means μ1 − μ2. Inferences about the Difference of Two Proportions p1 − p2. 11. ADDITIONAL TOPICS USING INFERENCE. Part I: Inferences Using the Chi-Square Distribution. Overview of the Chi-Square Distribution. Chi-Square: Tests of Independence and of Homogeneity. Chi-Square: Goodness of Fit. Testing a Single Variance or Standard Deviation. Part II: Inferences Relating to Linear Regression. Inferences for Correlation and Regression.

UNDERSTANDABLE STATISTICS, 12E

Concepts and Methods

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

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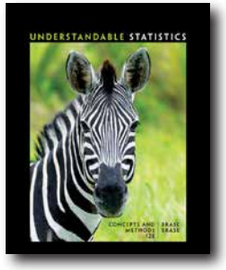

UNDERSTANDABLE STATISTICS: CONCEPTS AND METHODS, Twelfth Edition, is thorough, accessible, and designed to help you overcome "statistics anxiety" and master the subject. Clear guidance and informal advice help show you the links between statistics and the real world. Making the material interesting as well as easier to understand, the book integrates real-life data from a variety of sources, including journals, newspapers, and the Internet. Special features and exercises throughout the text let you develop your critical-thinking and statistical literacy skills, and interactive online resources offer you extra study assistance and tutorial support—including step-by-step video solutions—outside of class. The use of graphing calculators, Excel®, Minitab®, Minitab Express™, and SPSS® is covered, although not required.

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1. Getting Started. Introduces the subject, presents random samples and an introduction to experimental design. 2. Organizing Data. Histograms, graphs, stem-and l-leaf displays. 3. Averages and Variation. 4. Elementary Probability Theory. 5. The Binomial Probability Distribution and Related Topics. 6. Normal Curves and Sampling Distributions. Part I: Normal Distributions. Part II: Sampling Distributions and the Normal Approximation to Binomial Distribution. 7. Estimation. Part I: Estimating a Single Mean or Single Proportion. Part II: Estimating the Difference Between Two Means or Two Proportions. 8. Hypothesis Testing. Part I: Testing a Single Mean or Single Proportion. Part II: Testing a Difference Between Two Means or Two Proportions. 9. Correlation and Regression. Part I: Simple Linear Regression. Part II: Multiple Regression. 10. Chi-Square and F Distributions. Part I: Inferences Using the Chi-Square Distribution. Part II: Inferences Using the F Distribution. 11. Nonparametric Statistics. Appendix includes brief discussion of Bayes' Theorem and Hypergeometric Distribution.

UNDERSTANDING BASIC STATISTICS, INTERNATIONAL METRIC EDITION, 7E

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

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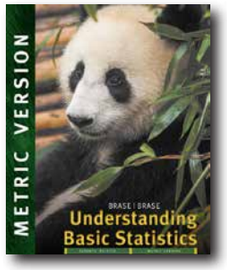

Designed to help you overcome your apprehension about statistics, UNDERSTANDING BASIC STATISTICS, ENHANCED, 7E, INTERNATIONAL METRIC EDITION provides plenty of guidance and informal advice as it demonstrates the links between statistics and the real world. The text's reader-friendly approach helps you grasp the concepts and see how they relate to your life. A complete technology package, including JMP® statistical software, gives you the tools you need to practice what you're learning and succeed in the course.

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INTRODUCTION TO STATISTICS AND DATA ANALYSIS (WITH JMP PRINTED ACCESS CARD), 5E

Roxy Peck, California Polytechnic State University, San Luis Obispo; Chris Olsen; Jay L. Devore, California Polytechnic State University, San Luis Obispo

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INTRODUCTION TO STATISTICS AND DATA ANALYSIS introduces you to the study of statistics and data analysis by using real data and attention-grabbing examples. The authors guide you through an intuition-based learning process that stresses interpretation and communication of statistical information. Simple notation--including frequent substitution of words for symbols--helps you grasp concepts and cement your comprehension. You'll also find coverage of various technologies as a problem-solving tool, plus hands-on activities in each chapter that allow you to practice statistics firsthand.

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1. THE ROLE OF STATISTICS AND THE DATA ANALYSIS PROCESS: Why Study Statistics? The Nature and Role of Variability. Statistics and the Data Analysis Process. Types of Data and Some Simple Graphical Displays. 2. COLLECTING DATA SENSIBLY: Statistical Studies: Observation and Experimentation. Sampling. Simple Comparative Experiments. More on Experimental Design. Interpreting and Communicating the Results of Statistical Analyses. More on Observational Studies: Designing Surveys (online). 3. GRAPHICAL METHODS FOR DESCRIBING DATA: Displaying Categorical Data: Comparative Bar Charts and Pie Charts. Displaying Numerical Data: Stem-and-Leaf Displays. Displaying Numerical Data: Frequency Distributions and Histograms. Displaying Bivariate Numerical Data. Interpreting and Communicating the Results of Statistical Analyses. 4. NUMERICAL METHODS FOR DESCRIBING DATA: Describing the Center of a Data Set. Describing Variability in a Data Set. Summarizing a Data Set: Boxplots. Interpreting Center and Variability: Chebyshev's Rule, the Empirical Rule, and z Scores. Interpreting and Communicating the Results of Statistical Analyses. 5. SUMMARIZING BIVARIATE DATA: Correlation. Linear Regression: Fitting a Line to Bivariate Data. Assessing the Fit of a Line. Nonlinear Relationships and Transformations. Interpreting and Communicating the Results of Statistical Analyses. Logistic Regression (online). 6. PROBABILITY: Chance Experiments and Events. Definition of Probability. Basic Properties of Probability. Conditional Probability. Independence. Some General Probability Rules. Estimating Probabilities Empirically Using Simulation. 7. RANDOM VARIABLES AND PROBABILITY DISTRIBUTIONS: Random Variables. Probability Distributions for Discrete Random Variables. Probability Distributions for Continuous Random Variables. Mean and Standard Deviation of a Random Variable. Binomial and Geometric Distributions. Normal Distributions. Checking for Normality and Normalizing Transformations. Using the Normal Distribution to Approximate a Discrete Distribution. 8. SAMPLING VARIABILITY AND SAMPLING DISTRIBUTIONS: Statistics and Sampling Variability. The Sampling Distribution of a Sample Mean. The Sampling Distribution of a Sample Proportion. 9. Estimation Using a Single Sample: Point Estimation. Large-Sample Confidence Interval for a Population Proportion. Confidence Interval for a Population Mean. Interpreting and Communicating the Results of Statistical Analyses. 10. HYPOTHESIS TESTING USING A SINGLE SAMPLE: Hypotheses and Test Procedures. Errors in Hypothesis Testing. Large-Sample Hypothesis Tests for a Population Proportion. Hypothesis Tests for a Population Mean. Power and Probability of Type II Error. Interpreting and Communicating the Results of Statistical Analyses. 11. COMPARING TWO POPULATIONS OR TREATMENTS: Inferences Concerning the Difference Between Two Population or Treatment Means Using Independent Samples. Inferences Concerning the Difference Between Two Population or Treatment Means Using Paired Samples. Large-Sample Inferences Concerning the Difference Between Two Population or Treatment Proportions. Interpreting and Communicating the Results of Statistical Analyses. 12. THE ANALYSIS OF CATEGORICAL DATA AND GOODNESS-OF-FIT TESTS: Chi-Square Tests for Univariate Data. Tests for Homogeneity and Independence in a Two-way Table. Interpreting and Communicating the Results of Statistical Analyses. 13. SIMPLE LINEAR REGRESSION AND CORRELATION: INFERENTIAL METHODS: Simple Linear Regression Model. Inferences about the Slope of the Population Regression Line. Checking Model Adequacy. Inferences Based on the Estimated Regression Line (online). Inferences About the Population Correlation Coefficient (online). Interpreting and Communicating the Results of Statistical Analyses (online). 14. MULTIPLE REGRESSION ANALYSIS: Multiple Regression Models. Fitting a Model and Assessing Its Utility. Inferences Based on an Estimated Model (online). Other Issues in Multiple Regression (online). Interpreting and Communicating the Results of Statistical Analyses (online). 15. ANALYSIS OF VARIANCE: Single-Factor ANOVA and the F Test. Multiple Comparisons. The F Test for a Randomized Block Experiment (online). Two-Factor ANOVA (online). Interpreting and Communicating the Results of Statistical Analyses (online). 16. NONPARAMETRIC (DISTRIBUTION-FREE) STATISTICAL METHODS (ONLINE): Distribution-Free Procedures for Inferences About a Difference Between Two Population or Treatment Means Using Independent Samples (Optional). Distribution Free Procedures for Inferences About a Difference Between Two Population or Treatment Means Using Paired Samples. Distribution-Free ANOVA.

PROBABILITY AND STATISTICS FOR ENGINEERING AND THE SCIENCES, 9E

Jay L. Devore, California Polytechnic State University, San Luis Obispo

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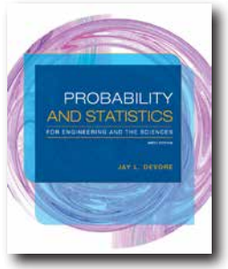

Make statistics relevant and practical for students in any discipline of engineering or science with PROBABILITY AND STATISTICS FOR ENGINEERING AND THE SCIENCES, 9th Edition. Always a market leader, this calculus-based text offers a comprehensive introduction to probability and statistics that emphasizes concepts, models, and methodology while also including underlying rationale, where appropriate (translation: this is not simply a cookbook!).

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PROBABILITY AND STATISTICS FOR ENGINEERING AND THE SCIENCES, INTERNATIONAL METRIC EDITION, 9E

Jay L. Devore, California Polytechnic State University, San Luis Obispo

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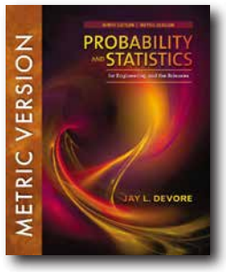

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MIND ON STATISTICS (WITH JMP PRINTED ACCESS CARD), 5E

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

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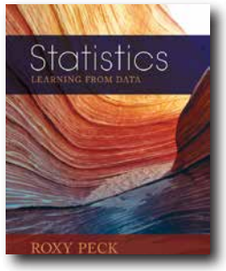

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Learning from Data. Statistics--It's All About Variability. The Data Analysis Process. Goals for Student Learning. The Structure of the Chapters that Follow. Section I: COLLECTING DATA. 1. Collecting Data in Reasonable Ways. Statistical Studies: Observation and Experimentation. Collecting Data: Planning an Observational Study. Collecting Data: Planning an Experiment. The Importance of Random Selection and Random Assignment: What Types of Conclusions are Reasonable? Section II: DESCRIBING DATA DISTRIBUTIONS. 2. Graphical Methods for Describing Data Distributions. Selecting an Appropriate Graphical Display. Displaying Categorical Data: Bar Charts and Comparative Bar Charts. Displaying Numerical Data: Dotplots, Stem-and-Leaf Displays, and Histograms. Displaying Bivariate Numerical Data: Scatterplots and Time-Series Plots. Graphical Displays in the Media. 3. Numerical Methods for Describing Data Distributions. Selecting Appropriate Numerical Summaries. Describing Center and Spread for Data Distributions that are Approximately Symmetric. Describing Center and Spread for Data Distributions that are Skewed or Have Outliers. Summarizing a Data Set: Boxplots. Measures of Relative Standing: z-scores and Percentiles. 4. Describing Bivariate Numerical Data. Correlation. Linear Regression: Fitting a Line to Bivariate Data. Assessing the Fit of a Line. Describing Linear Relationships and Making Predictions--Putting it all Together. Bonus Material on Logistic Regression (Online). Section III: A FOUNDATION FOR INFERENCE: REASONING ABOUT PROBABILITY. 5. Probability. Interpreting Probabilities. Computing Probabilities. Probabilities of More Complex Events: Unions, Intersections and Complements. Conditional Probability. Probability as a Basis for Making Decisions. Estimating Probabilities Empirically and Using Simulation (Optional). 6. Random Variables and Probability Distributions. Random Variables. Probability Distributions for Discrete Random Variables. Probability Distributions for Continuous Random Variables. The Mean and Standard Deviation of a Random Variable. The Normal Distribution. Checking for Normality. The Binomial and Geometric Distributions (Optional). Using the Normal Distribution to Approximate a Discrete Distribution (Optional). Counting Rules, The Poisson Distribution (Online). Section IV: LEARNING FROM SAMPLE DATA. 7. An Overview of Statistical Inference--Learning from Data. Statistical Inference--What We Can Learn From Data. Selecting an Appropriate Method--Four Key Questions. A Five-Step Process for Statistical Inference. 8. Sampling Variability and Sampling Distributions. Statistics and Sampling Variability. The Sampling Distribution of a Sample Proportion. How Sampling Distributions Support Learning From Data. 9. Estimating a Population Proportion. Selecting an Estimator. Estimating a Population Proportion--Margin of Error. A Large-Sample Confidence Interval for a Population Proportion. Choosing a Sample Size to Achieve a Desired Margin of Error. 10. Asking and Answering Questions about a Population Proportion. Hypotheses and Possible Conclusions. Potential Errors in Hypothesis Testing. The Logic of Hypothesis Testing--An Informal Example. A Procedure for Carrying Out a Hypothesis Test. Large-Sample Hypothesis Tests for a Population Proportion. 11. Asking and Answering Questions about the Difference between Two Population Proportions. Estimating the Difference between Two Population Proportions. Testing Hypotheses about the Difference between Two Population Proportions. 12. Asking and Answering Questions about a Population Mean. Sampling Distribution of the Sample Mean. A Confidence Interval for a Population Mean. Testing Hypotheses about a Population Mean. 13. Asking and Answering Questions about the Difference between Two Population Means. Testing Hypotheses about the Difference between Two Population Means Using Independent Samples. Testing Hypotheses about the Difference between Two Population Means Using Paired Samples. Estimating the Difference between Two Population Means. Section V: ADDITIONAL OPPORTUNITIES TO LEARN FROM DATA. 14. Learning from Experiment Data. Variability and Random Assignment. Testing Hypotheses about Differences in Treatment Effects. Estimating a Difference in Treatment Effects. 15. Learning from Categorical Data. Chi-Square Tests for Univariate Categorical Data. Tests for Homogeneity and Independence in a Two-Way Table. 16. Understanding Relationships--Numerical Data Part 2 (Online). The Simple Linear Regression Model. Inferences Concerning the Slope of the Population Regression Line. Checking Model Adequacy. 17. Asking and Answering Questions about More Than Two Means (Online). The Analysis of Variance--Single-Factor ANOVA and the F Test. Multiple Comparisons. Appendix: ANOVA Computations.

APPLIED STATISTICS FOR ENGINEERS AND SCIENTISTS, 3E

Jay L. Devore, California Polytechnic State University, San Luis Obispo; Nicholas R. Farnum, California State University, Fullerton; Jimmy A. Doi, California Polytechnic State University, San Luis Obispo

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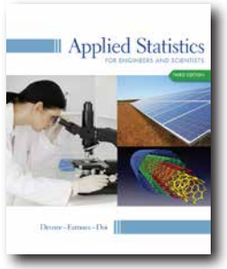

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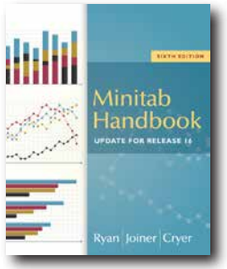

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PROBABILITY AND STATISTICS FOR ENGINEERS AND SCIENTISTS, 4E

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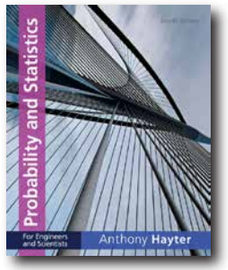

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ELEMENTARY STATISTICS, 11E

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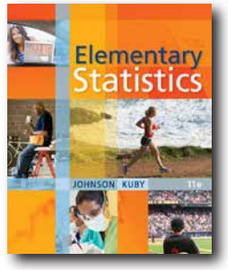

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INTRODUCTION TO STATISTICS AND DATA ANALYSIS, 4E

Roxy Peck, California Polytechnic State University, San Luis Obispo; Chris Olsen; Jay L. Devore, California Polytechnic State University, San Luis Obispo

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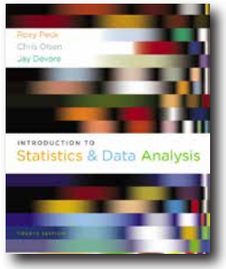

Traditional in structure yet modern in approach, this text uses real data, attention-grabbing examples, and an intuition-based learning process to guide students through the study of statistics and data analysis.

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STATISTICS, 7E

The Exploration & Analysis of Data

Roxy Peck, California Polytechnic State University, San Luis Obispo; Jay L. Devore, California Polytechnic State University, San Luis Obispo

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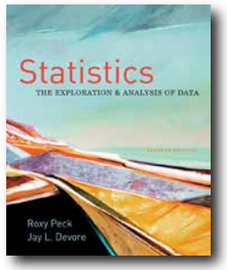

STATISTICS: THE EXPLORATION AND ANALYSIS OF DATA, 7th Edition introduces you to the study of statistics and data analysis by using real data and attention-grabbing examples. The authors guide you through an intuition-based learning process that stresses interpretation and communication of statistical information. Simple notation--including the frequent substitution of words for symbols--helps you grasp concepts and cement your comprehension.

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STATISTICS, INTERNATIONAL EDITION, 4E

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

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By sparking students' curiosity and explaining topics in the context of interesting, useful examples and case studies, STATISTICS, 4e, International Edition helps students develop a conceptual understanding of statistical ideas and shows how to find meaning in data.

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STATISTICS, INTERNATIONAL EDITION, 10E

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

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Enhanced by online resources, this thorough, yet accessible program is designed to help students overcome their apprehensions about statistics, providing guidance and informal advice while showing the links between statistics and the world.

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STUDENT SOLUTIONS MANUAL FOR JOHNSON/KUBY'S ELEMENTARY STATISTICS, 11TH, 11E

Robert R. Johnson, Monroe Community College; Patricia J. Kuby

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Want to make sure your answers are correct and that you took the correct steps to arrive at them? This manual, which contains fully worked-out solutions to all of the odd-numbered exercises in the text, helps you do just that.

ELEMENTARY STATISTICS

Looking at the Big Picture

Nancy Pfenning, University of Pittsburgh

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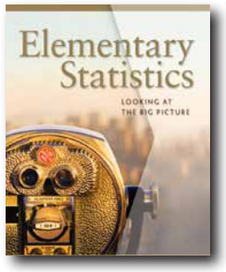

Many statistics books can teach you statistical techniques, but how do all tie together, and how do you know which technique to apply in a given situation? Using a successfully class-tested approach that gives coherence to a broad range of introductory topics, this innovative text helps you make sense of it all by providing you with a real-world, big picture view of statistics. Author Nancy Pfenning organizes content around four basic processes of statistics: producing data, displaying and summarizing data, understanding probability, and performing statistical inference. Within this framework, the book explains the five basic situations involving values of variables (quantitative, categorical, or a blend) that you will encounter. As a result, you will learn to identify which situation applies and how to choose the correct display, summary, or inference tool. As you gain proficiency in specific statistical techniques, the author also points out connections among topics and techniques to help you gain a perspective on statistics as a whole. More than 1,000 real-life examples and categorized exercises support the approach, engaging you in practicing and developing a variety of skills.

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PROBABILITY AND STATISTICS FOR ENGINEERS, 5E

Richard L. Scheaffer, University of Florida, Emeritus; Madhuri Mulekar, University of South Alabama; James T. McClave

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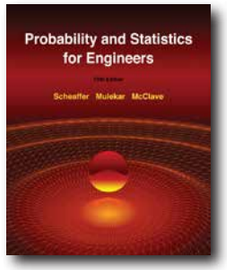

PROBABILITY AND STATISTICS FOR ENGINEERS provides a one-semester, calculus-based introduction to engineering statistics that focuses on making intelligent sense of real engineering data and interpreting results. Traditional topics are presented thorough a wide array of illuminating engineering applications and an accessible modern framework that emphasizes statistical thinking, data collection and analysis, decision-making, and process improvement skills.

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INTRODUCTION TO STATISTICS AND DATA ANALYSIS, ENHANCED REVIEW EDITION (WITH CENGAGENOW PRINTED ACCESS CARD), 3E

Roxy Peck, California Polytechnic State University, San Luis Obispo; Chris Olsen; Jay L. Devore, California Polytechnic State University, San Luis Obispo

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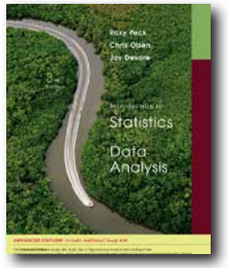

Traditional in structure yet modern in approach, this text uses real data and attention-grabbing examples to guide students through the study of statistics and data analysis.

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STATISTICS WITH STATA, 8E

Version 12

Lawrence C. Hamilton, University of New Hampshire

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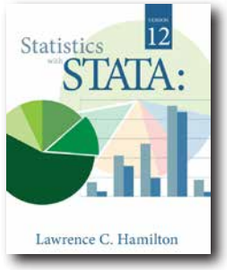

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DATA ANALYSIS WITH MICROSOFT® EXCEL®, 3E

Updated for Office 2007 (with Web Site Printed Access Card)

Kenneth N. Berk, Illinois State University; Patrick M. Carey, University of Wisconsin

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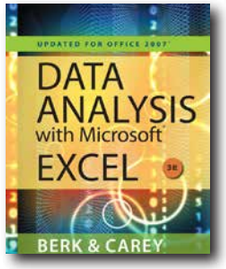

Using a step-by-step approach, tutorials, and examples based on real data, this popular book shows students and professionals how to do data analysis with Microsoft® Excel™, even if they have no previous spreadsheet experience.

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1. Getting Started with Excel. Special Files for This Book. Excel and Spreadsheets. Excel Workbooks and Worksheets. Worksheet Cells. Printing from Excel. Saving Your Work. Excel Add-Ins. Features of Statplus. Exiting Excel. 2. Working with Data. Data entry. Data Formats. Formulas and Functions. Cell References. Range Names. Sorting Data. Querying Data. Importing Data from Text Files. Importing Data from Databases. Exercises. 3. Working with Charts. Working with Excel Charts. Introducing Scatterplots. Creating Charts with the Chart Wizard. Editing a Chart. Identifying Data Points. Creating Bubble Plots. Breaking a Scatterplot into Categories. Plotting Several Variables. Exercises. PART II: FUNDAMENTALS OF STATISTICS. 4. Describing Your Data. Variables and Descriptive Statistics. Looking at Distributions with Frequency Tables. Working with Histograms. Working with Stem and Leaf Plots. Distribution Statistics. Working with Boxplots. Exercises. 5. Probability Distributions. Probability. Probability Distributions. Random Variables and Random Samples. The Normal Distribution. Parameters and Estimators. The Sampling Distribution. The Central Limit Theorem. Exercises. 6. Statistical Inference. Confidence Intervals. Hypothesis Testing. The t-Distribution. Applying the t-Test to Paired Data. Applying a Nonparametric Test to Paired Data. The Two-Sample t-Test. Applying the t-Test to Two-Sample Data. Applying a Nonparametric Test to Two-Sample Data. Final Thoughts about Statistical Inference. Exercises. 7. Tables. Pivot Tables. Two-Way Tables. Computing Expected Counts. The Pearson Chi-Square Statistic. Other Table Statistics. Validity of the Chi-Square Test with Small Frequencies. Tables with Ordinal Variables. Exercises. PART III: STATISTICAL METHODS. 8. Regression and Correlation. Simple Linear Regression. Regression Functions in Excel. Performing a Regression on Analysis. Checking the Regression Model. Correlation. Creating a Correlation Matrix. Creating a Scatterplot Matrix. Exercises. 9. Multiple Regression. Regression Models with Multiple Parameters. Regression Example: Predicting Grades. Testing Regression Assumptions. Plotting Residuals s. Predicted Values. Regression Example: Sex Discrimination. Exercises. 10. Analysis of Variance. One-Way Analysis of Variance. Analysis of Variance Example: Comparing Hotel Prices. Comparing Means. Using the Bonferroni Correction Factor. When to Use Bonferroni. One-Way Analysis of Variance and Regression. Two-Way Analysis of Variance. A Two-Factor Example. Two-Way Analysis Example: Comparing Soft Drinks. Exercises. 11. Time Series. Time Series Concepts. Time Series Example: The Dow in the 1980s. The Autocorrelation Function. Moving Averages. Simple Exponential Smoothing. Two-Parameter Exponential Smoothing. Seasonality. Seasonal Example: Beer Production. Three-Parameter Exponential. Smoothing. Optimizing the Exponential. Smoothing Constant (Optional). Exercises. 12. Quality Control. Statistical Quality Control. Control Charts. The Chi [Overbar] Chart. The Range Chart. The C-Chart. The P-Chart. Control Charts for Individual Observations. The Pareto Chart. Exercises. Appendix. Excel Reference. Bibliography. Index.

LEARNING SAS IN THE COMPUTER LAB, 3E

Rebecca J. Elliott; Christopher H. Morrell, Loyola University Maryland

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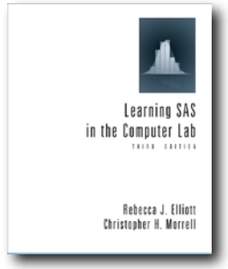

This brief, affordable manual gets students up and running quickly with SAS, enabling them to successfully use computing in statistics and acquire an appreciation of data analysis.

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Notes

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