

The Calculus Primer Dover Books On Mathematics

WHEN SOMEBODY SHOULD GO TO THE BOOKS STORES, SEARCH INAUGURATION BY SHOP, SHELF BY SHELF, IT IS REALLY PROBLEMATIC. THIS IS WHY WE PROVIDE THE BOOKS COMPILATIONS IN THIS WEBSITE. IT WILL COMPLETELY EASE YOU TO LOOK GUIDE **THE CALCULUS PRIMER DOVER BOOKS ON MATHEMATICS** AS YOU SUCH AS.

BY SEARCHING THE TITLE, PUBLISHER, OR AUTHORS OF GUIDE YOU IN POINT OF FACT WANT, YOU CAN DISCOVER THEM RAPIDLY. IN THE HOUSE, WORKPLACE, OR PERHAPS IN YOUR METHOD CAN BE EVERY BEST AREA WITHIN NET CONNECTIONS. IF YOU TRY TO DOWNLOAD AND INSTALL THE THE CALCULUS PRIMER DOVER BOOKS ON MATHEMATICS, IT IS ENTIRELY SIMPLE THEN, BEFORE CURRENTLY WE EXTEND THE CONNECT TO BUY AND MAKE BARGAINS TO DOWNLOAD AND INSTALL THE CALCULUS PRIMER DOVER BOOKS ON MATHEMATICS CORRESPONDINGLY SIMPLE!

ON THE STUDY AND DIFFICULTIES OF MATHEMATICS [BY A. DE MORGAN]. AUGUSTUS DE MORGAN 1831

GEOMETRY, TOPOLOGY AND PHYSICS MIKIO NAKAHARA 2018-10-03 DIFFERENTIAL GEOMETRY AND TOPOLOGY HAVE BECOME ESSENTIAL TOOLS FOR MANY THEORETICAL PHYSICISTS. IN PARTICULAR, THEY ARE INDISPENSABLE IN THEORETICAL STUDIES OF CONDENSED MATTER PHYSICS, GRAVITY, AND PARTICLE PHYSICS. **GEOMETRY, TOPOLOGY AND PHYSICS, SECOND EDITION** INTRODUCES THE IDEAS AND TECHNIQUES OF DIFFERENTIAL GEOMETRY AND TOPOLOGY AT A LEVEL SUITABLE FOR POSTGRADUATE STUDENTS AND RESEARCHERS IN THESE FIELDS. THE SECOND EDITION OF THIS POPULAR AND ESTABLISHED TEXT INCORPORATES A NUMBER OF CHANGES DESIGNED TO MEET THE NEEDS OF THE READER AND REFLECT THE DEVELOPMENT OF THE SUBJECT. THE BOOK FEATURES A CONSIDERABLY EXPANDED FIRST CHAPTER, REVIEWING ASPECTS OF PATH INTEGRAL QUANTIZATION AND GAUGE THEORIES. CHAPTER 2 INTRODUCES THE MATHEMATICAL CONCEPTS OF MAPS, VECTOR SPACES, AND TOPOLOGY. THE FOLLOWING CHAPTERS FOCUS ON MORE ELABORATE CONCEPTS IN GEOMETRY AND TOPOLOGY AND DISCUSS THE APPLICATION OF THESE CONCEPTS TO LIQUID CRYSTALS, SUPERFLUID HELIUM, GENERAL RELATIVITY, AND BOSONIC STRING THEORY. LATER CHAPTERS UNIFY GEOMETRY AND TOPOLOGY, EXPLORING FIBER BUNDLES, CHARACTERISTIC CLASSES, AND INDEX THEOREMS. NEW TO THIS SECOND EDITION IS THE PROOF OF THE INDEX THEOREM IN TERMS OF SUPERSYMMETRIC QUANTUM MECHANICS. THE FINAL TWO CHAPTERS ARE DEVOTED TO THE MOST FASCINATING APPLICATIONS OF GEOMETRY AND TOPOLOGY IN CONTEMPORARY PHYSICS, NAMELY THE STUDY OF ANOMALIES IN GAUGE FIELD THEORIES AND THE ANALYSIS OF POLAKOV'S BOSONIC STRING THEORY FROM THE GEOMETRICAL POINT OF VIEW. **GEOMETRY, TOPOLOGY AND PHYSICS, SECOND EDITION** IS AN IDEAL INTRODUCTION TO DIFFERENTIAL GEOMETRY AND TOPOLOGY FOR POSTGRADUATE STUDENTS AND RESEARCHERS IN THEORETICAL AND MATHEMATICAL PHYSICS.

INTRODUCTION TO REAL ANALYSIS MICHAEL J. SCHRAMM 2012-05-11 THIS TEXT FORMS A BRIDGE BETWEEN COURSES IN CALCULUS AND REAL ANALYSIS. SUITABLE FOR ADVANCED UNDERGRADUATES AND GRADUATE STUDENTS, IT FOCUSES ON THE CONSTRUCTION OF MATHEMATICAL PROOFS. 1996 EDITION.

THE GEOMETRY OF \mathbb{R}^n DESCARTES \mathbb{R}^n DESCARTES 1925

THE DEVELOPMENT OF MATHEMATICS E. T. BELL 2012-09-11 TIME-HONORED STUDY BY A PROMINENT SCHOLAR OF MATHEMATICS TRACES DECISIVE EPOCHS FROM THE EVOLUTION OF MATHEMATICAL IDEAS IN ANCIENT EGYPT AND BABYLONIA TO MAJOR BREAKTHROUGHS IN THE 19TH AND 20TH CENTURIES. 1945 EDITION.

ELEMENTARY LESSONS IN ELECTRICITY & MAGNETISM SILVANUS PHILLIPS THOMPSON 1893

INTRODUCTION TO REAL ANALYSIS WILLIAM F. TRENCH 2003 USING AN EXTREMELY CLEAR AND INFORMAL APPROACH, THIS BOOK INTRODUCES READERS TO A RIGOROUS UNDERSTANDING OF MATHEMATICAL ANALYSIS AND PRESENTS CHALLENGING MATH CONCEPTS AS CLEARLY AS POSSIBLE. THE REAL NUMBER SYSTEM. DIFFERENTIAL CALCULUS OF FUNCTIONS OF ONE VARIABLE. RIEMANN INTEGRAL FUNCTIONS OF ONE VARIABLE. INTEGRAL CALCULUS OF REAL-VALUED FUNCTIONS. METRIC SPACES. FOR THOSE WHO WANT TO GAIN AN UNDERSTANDING OF MATHEMATICAL ANALYSIS AND CHALLENGING MATHEMATICAL CONCEPTS.

CALCULUS MADE EASY SILVANUS PHILLIPS THOMPSON 1911

INTRODUCTION TO ANALYSIS MAXWELL ROSENBLIGHT 2012-05-04 WRITTEN FOR JUNIOR AND SENIOR UNDERGRADUATES, THIS REMARKABLY CLEAR AND ACCESSIBLE TREATMENT COVERS SET THEORY, THE REAL NUMBER SYSTEM, METRIC SPACES, CONTINUOUS FUNCTIONS, RIEMANN INTEGRATION, MULTIPLE INTEGRALS, AND MORE. 1968 EDITION.

DIFFERENTIAL FORMS HENRI CARTAN 2012-07-06 THE FAMOUS MATHEMATICIAN ADDRESSES BOTH PURE AND APPLIED BRANCHES OF MATHEMATICS IN A BOOK EQUALLY ESSENTIAL AS A TEXT, REFERENCE, OR A BRILLIANT MATHEMATICAL EXERCISE. "SUPERB." — MATHEMATICAL REVIEW. 1971 EDITION.

A BOOK OF ABSTRACT ALGEBRA CHARLES C PINTER 2010-01-14 ACCESSIBLE BUT RIGOROUS, THIS OUTSTANDING TEXT ENCOMPASSES ALL OF THE TOPICS COVERED BY A TYPICAL COURSE IN ELEMENTARY ABSTRACT ALGEBRA. ITS EASY-TO-READ TREATMENT OFFERS AN INTUITIVE APPROACH, FEATURING INFORMAL DISCUSSIONS FOLLOWED BY THEMATICALLY ARRANGED EXERCISES. THIS SECOND EDITION FEATURES ADDITIONAL EXERCISES TO IMPROVE STUDENT FAMILIARITY WITH APPLICATIONS. 1990 EDITION.

COUNTEREXAMPLES IN ANALYSIS BERNARD R. GELBAUM 2012-07-12 THESE COUNTEREXAMPLES DEAL MOSTLY WITH THE PART OF ANALYSIS KNOWN AS "REAL VARIABLES." COVERS THE REAL NUMBER SYSTEM, FUNCTIONS AND LIMITS, DIFFERENTIATION, RIEMANN INTEGRATION, SEQUENCES, INFINITE SERIES, FUNCTIONS OF 2 VARIABLES, PLANE SETS, MORE. 1962 EDITION.

PRIMER OF QUANTUM MECHANICS MARVIN CHESTER 2012-04-26 INTRODUCTORY TEXT EXAMINES CLASSICAL QUANTUM BEAD ON A TRACK: STATE AND REPRESENTATIONS; OPERATOR EIGENVALUES; HARMONIC OSCILLATOR AND BOUND BEAD IN A SYMMETRIC FORCE FIELD; BEAD IN SPHERICAL SHELL. 1992 EDITION.

LOGIC IN ELEMENTARY MATHEMATICS ROBERT M. EXNER 2011-06-16 THIS ACCESSIBLE, APPLICATIONS-RELATED INTRODUCTORY TREATMENT EXPLORES SOME OF THE STRUCTURE OF MODERN SYMBOLIC LOGIC USEFUL IN THE EXPOSITION OF ELEMENTARY MATHEMATICS. NUMEROUS EXAMPLES AND EXERCISES. 1959 EDITION.

THE COMPLEAT STRATEGYST JOHN D. WILLIAMS 2007-09-01 CLASSIC GAME THEORY PRIMER FROM 1954 THAT DISCUSSES BASIC CONCEPTS OF GAME THEORY AND ITS APPLICATIONS, AND WHICH POPULARIZED THE SUBJECT FOR AMATEURS, PROFESSIONALS, AND STUDENTS THROUGHOUT THE WORLD.

THE PHILOSOPHY OF MATHEMATICAL PRACTICE PAOLO MANCOSU 2008-06-19 THERE IS AN URGENT NEED IN PHILOSOPHY OF MATHEMATICS FOR NEW APPROACHES WHICH PAY CLOSER ATTENTION TO MATHEMATICAL PRACTICE. THIS BOOK WILL BLAZE THE TRAIL: IT OFFERS PHILOSOPHICAL ANALYSES OF IMPORTANT CHARACTERISTICS OF CONTEMPORARY MATHEMATICS AND OF MANY ASPECTS OF MATHEMATICAL ACTIVITY WHICH ESCAPE PURELY FORMAL LOGICAL TREATMENT.

INTRODUCTION TO GRAPH THEORY RICHARD J. TRUDEAU 2013-04-15 AIMED AT "THE MATHEMATICALLY TRAUMATIZED," THIS TEXT OFFERS NONTECHNICAL COVERAGE OF GRAPH THEORY, WITH EXERCISES. DISCUSSES PLANAR GRAPHS, EULER'S FORMULA, PLATONIC GRAPHS, COLORING, THE GENUS OF A GRAPH, EULER WALKS, HAMILTON WALKS, MORE. 1976 EDITION.

PRIMER OF MODERN ANALYSIS K.T. SMITH 2012-12-06 THIS BOOK DISCUSSES SOME OF THE FIRST PRINCIPLES OF MODERN ANALYSIS. IT CAN BE USED FOR COURSES AT SEVERAL LEVELS, DEPENDING UPON THE BACKGROUND AND ABILITY OF THE STUDENTS. IT WAS WRITTEN ON THE PREMISE THAT TODAY'S GOOD STUDENTS HAVE UNEXPECTED ENTHUSIASM AND NERVE. WHEN HARD WORK IS PUT TO THEM, THEY WORK HARDER AND ASK FOR MORE. THE HONORS COURSE (AT THE UNIVERSITY OF WISCONSIN) WHICH INSPIRED THIS BOOK WAS, I THINK, MORE FUN THAN THE BOOK ITSELF. AND BETTER. BUT THEN THERE IS ACTING IN TEACHING, AND A TYPEWRITER IS A POOR SUBSTITUTE FOR AN AUDIENCE. THE SPONTANEOUS, CREATIVE DISORDER THAT CHARACTERIZES AN EXCITING COURSE BECOMES SILLY IN A BOOK. TO WRITE, ONE MUST CUT AND DRY. YET, I HOPE ENOUGH OF THE SPONTANEITY, ENOUGH OF THE SPIRIT OF THAT COURSE, IS LEFT TO ENABLE THOSE USING THE BOOK TO CREATE EXCITING COURSES OF THEIR OWN. EXERCISES IN THIS BOOK ARE NOT DESIGNED FOR DRILL. THEY ARE DESIGNED TO CLARIFY THE MEANINGS OF THE THEOREMS, TO FORCE AN UNDERSTANDING OF THE PROOFS, AND TO CALL ATTENTION TO POINTS IN A PROOF THAT MIGHT OTHERWISE BE OVERLOOKED. THE EXERCISES, THEREFORE, ARE A REAL PART OF THE THEORY, NOT A COLLECTION OF SIDE ISSUES, AND AS SUCH NEARLY ALL OF THEM ARE TO BE DONE. SOME DRILL IS, OF COURSE, NECESSARY, PARTICULARLY IN THE CALCULATION OF INTEGRALS.

ORDINARY DIFFERENTIAL EQUATIONS MORRIS TENENBAUM 1985-10-01 SKILLFULLY ORGANIZED INTRODUCTORY TEXT EXAMINES ORIGIN OF DIFFERENTIAL EQUATIONS, THEN DEFINES BASIC TERMS AND OUTLINES THE GENERAL SOLUTION OF A DIFFERENTIAL EQUATION. SUBSEQUENT SECTIONS DEAL WITH INTEGRATING FACTORS; DILUTION AND ACCRETION PROBLEMS; LINEARIZATION OF

FIRST ORDER SYSTEMS; LAPLACE TRANSFORMS; NEWTON'S INTERPOLATION FORMULAS, MORE.

ORDINARY DIFFERENTIAL EQUATIONS EDWARD L. INCE 2012-04-27 AMONG THE TOPICS COVERED IN THIS CLASSIC TREATMENT ARE LINEAR DIFFERENTIAL EQUATIONS; SOLUTION IN AN INFINITE FORM; SOLUTION BY DEFINITE INTEGRALS; ALGEBRAIC THEORY; STURMIAN THEORY AND ITS LATER DEVELOPMENTS; MUCH MORE. "HIGHLY RECOMMENDED" — ELECTRONICS INDUSTRIES.

APPROXIMATE CALCULATION OF INTEGRALS V. I. KRYLOV 2012-01-27 AN INTRODUCTION TO THE PRINCIPAL IDEAS AND RESULTS OF THE CONTEMPORARY THEORY OF APPROXIMATE INTEGRATION, THIS VOLUME APPROACHES ITS SUBJECT FROM THE VIEWPOINT OF FUNCTIONAL ANALYSIS. THE 3-PART TREATMENT BEGINS WITH CONCEPTS AND THEOREMS ENCOUNTERED IN THE THEORY OF QUADRATURE AND THEN EXPLORES THE PROBLEM OF CALCULATION OF DEFINITE INTEGRALS AND METHODS FOR THE CALCULATION OF INDEFINITE INTEGRAL. 1962 EDITION.

CALCULUS: A RIGOROUS FIRST COURSE DANIEL J. VELLEMAN 2017-01-18 DESIGNED FOR UNDERGRADUATE MATHEMATICS MAJORS, THIS RIGOROUS AND REWARDING TREATMENT COVERS THE USUAL TOPICS OF FIRST-YEAR CALCULUS: LIMITS, DERIVATIVES, INTEGRALS, AND INFINITE SERIES. AUTHOR DANIEL J. VELLEMAN FOCUSES ON CALCULUS AS A TOOL FOR PROBLEM SOLVING RATHER THAN THE SUBJECT'S THEORETICAL FOUNDATIONS. STRESSING A FUNDAMENTAL UNDERSTANDING OF THE CONCEPTS OF CALCULUS INSTEAD OF MEMORIZED PROCEDURES, THIS VOLUME TEACHES PROBLEM SOLVING BY REASONING, NOT JUST CALCULATION. THE GOAL OF THE TEXT IS AN UNDERSTANDING OF CALCULUS THAT IS DEEP ENOUGH TO ALLOW THE STUDENT TO NOT ONLY FIND ANSWERS TO PROBLEMS, BUT ALSO ACHIEVE CERTAINTY OF THE ANSWERS' CORRECTNESS. NO BACKGROUND IN CALCULUS IS NECESSARY. PREREQUISITES INCLUDE PROFICIENCY IN BASIC ALGEBRA AND TRIGONOMETRY, AND A CONCISE REVIEW OF BOTH AREAS PROVIDES SUFFICIENT BACKGROUND. EXTENSIVE PROBLEM MATERIAL APPEARS THROUGHOUT THE TEXT AND INCLUDES SELECTED ANSWERS. COMPLETE SOLUTIONS ARE AVAILABLE TO INSTRUCTORS.

TENSOR ANALYSIS ON MANIFOLDS RICHARD L. BISHOP 2012-04-26 DIV PROCEEDS FROM GENERAL TO SPECIAL, INCLUDING CHAPTERS ON VECTOR ANALYSIS ON MANIFOLDS AND INTEGRATION THEORY. /DIV

BASIC PROBABILITY THEORY ROBERT B. ASH 2008-06-26 THIS INTRODUCTION TO MORE ADVANCED COURSES IN PROBABILITY AND REAL ANALYSIS EMPHASIZES THE PROBABILISTIC WAY OF THINKING, RATHER THAN MEASURE-THEORETIC CONCEPTS. GEARED TOWARD ADVANCED UNDERGRADUATES AND GRADUATE STUDENTS, ITS SOLE PREREQUISITE IS CALCULUS. TAKING STATISTICS AS ITS MAJOR FIELD OF APPLICATION, THE TEXT OPENS WITH A REVIEW OF BASIC CONCEPTS, ADVANCING TO SURVEYS OF RANDOM VARIABLES, THE PROPERTIES OF EXPECTATION, CONDITIONAL PROBABILITY AND EXPECTATION, AND CHARACTERISTIC FUNCTIONS. SUBSEQUENT TOPICS INCLUDE INFINITE SEQUENCES OF RANDOM VARIABLES, MARKOV CHAINS, AND AN INTRODUCTION TO STATISTICS. COMPLETE SOLUTIONS TO SOME OF THE PROBLEMS APPEAR AT THE END OF THE BOOK.

CLASSICAL MECHANICS WITH CALCULUS OF VARIATIONS AND OPTIMAL CONTROL MARK LEVI 2014-03-07 THIS IS AN INTUITIVELY MOTIVATED PRESENTATION OF MANY TOPICS IN CLASSICAL MECHANICS AND RELATED AREAS OF CONTROL THEORY AND CALCULUS OF VARIATIONS. ALL TOPICS THROUGHOUT THE BOOK ARE TREATED WITH ZERO TOLERANCE FOR UNREVEALING DEFINITIONS AND FOR PROOFS WHICH LEAVE THE READER IN THE DARK. SOME AREAS OF PARTICULAR INTEREST ARE: AN EXTREMELY SHORT DERIVATION OF THE ELLIPTICITY OF PLANETARY ORBITS; A STATEMENT AND AN EXPLANATION OF THE "TENNIS RACKET PARADOX"; A HEURISTIC EXPLANATION (AND A RIGOROUS TREATMENT) OF THE GYROSCOPIC EFFECT; A REVEALING EQUIVALENCE BETWEEN THE DYNAMICS OF A PARTICLE AND STATICS OF A SPRING; A SHORT GEOMETRICAL EXPLANATION OF PONTRYAGIN'S MAXIMUM PRINCIPLE, AND MORE. IN THE LAST CHAPTER, AIMED AT MORE ADVANCED READERS, THE HAMILTONIAN AND THE MOMENTUM ARE COMPARED TO FORCES IN A CERTAIN STATIC PROBLEM. THIS GIVES A PALPABLE PHYSICAL MEANING TO SOME SEEMINGLY ABSTRACT CONCEPTS AND THEOREMS. WITH MINIMAL PREREQUISITES CONSISTING OF BASIC CALCULUS AND BASIC UNDERGRADUATE PHYSICS, THIS BOOK IS SUITABLE FOR COURSES FROM AN UNDERGRADUATE TO A BEGINNING GRADUATE LEVEL, AND FOR A MIXED AUDIENCE OF MATHEMATICS, PHYSICS AND ENGINEERING STUDENTS. MUCH OF THE ENJOYMENT OF THE SUBJECT LIES IN SOLVING ALMOST 200 PROBLEMS IN THIS BOOK.

THE MATHEMATICS OF GAMES OF STRATEGY MELVIN DRESHER 2012-11-14 THIS TEXT OFFERS AN EXCEPTIONALLY CLEAR PRESENTATION OF THE MATHEMATICAL THEORY OF GAMES OF STRATEGY AND ITS APPLICATIONS TO MANY FIELDS INCLUDING ECONOMICS, MILITARY, BUSINESS, AND OPERATIONS RESEARCH.

COMPLEX ANALYSIS ALAN F. BEARDON 2019-12-18 TEXT FOR ADVANCED UNDERGRADUATES AND GRADUATE STUDENTS PROVIDES GEOMETRICAL INSIGHTS BY COVERING ANGLES, BASIC COMPLEX ANALYSIS, AND INTERACTIONS WITH PLANE TOPOLOGY WHILE FOCUSING ON CONCEPTS OF ANGLE AND WINDING NUMBERS. 1979 EDITION.

MATHEMATICS A. D. ALEKSANDROV 2012-05-07 MAJOR SURVEY OFFERS COMPREHENSIVE, COHERENT DISCUSSIONS OF ANALYTIC GEOMETRY, ALGEBRA, DIFFERENTIAL EQUATIONS, CALCULUS OF VARIATIONS, FUNCTIONS OF A COMPLEX VARIABLE, PRIME NUMBERS, LINEAR AND NON-EUCLIDEAN GEOMETRY, TOPOLOGY, FUNCTIONAL ANALYSIS, MORE. 1963 EDITION.

CATEGORY THEORY IN CONTEXT EMILY RIEHL 2017-03-09 INTRODUCTION TO CONCEPTS OF CATEGORY THEORY — CATEGORIES, FUNCTORS, NATURAL TRANSFORMATIONS, THE YONEDA LEMMA, LIMITS AND COLIMITS, ADJUNCTIONS, MONADS — REVISITS A BROAD RANGE OF MATHEMATICAL EXAMPLES FROM THE CATEGORICAL PERSPECTIVE. 2016 EDITION.

INFINITESIMAL CALCULUS JAMES M. HENLE 2014-01-15 INTRODUCING CALCULUS AT THE BASIC LEVEL, THIS TEXT COVERS HYPERREAL NUMBERS AND HYPERREAL LINE, CONTINUOUS FUNCTIONS, INTEGRAL AND DIFFERENTIAL CALCULUS, FUNDAMENTAL THEOREM, INFINITE SEQUENCES AND SERIES, INFINITE POLYNOMIALS, MORE. 1979 EDITION.

CALCULUS: EARLY TRANSCENDENTALS JAMES STEWART 2020-01-23 JAMES STEWART'S CALCULUS SERIES IS THE TOP-SELLER IN THE WORLD BECAUSE OF ITS PROBLEM-SOLVING FOCUS, MATHEMATICAL PRECISION AND ACCURACY, AND OUTSTANDING EXAMPLES AND PROBLEM SETS. SELECTED AND MENTORED BY STEWART, DANIEL CLEGG AND SALEEM WATSON CONTINUE HIS LEGACY OF PROVIDING STUDENTS WITH THE STRONGEST FOUNDATION FOR A STEM FUTURE. THEIR CAREFUL REFINEMENTS RETAIN STEWART'S CLARITY OF EXPOSITION AND MAKE THE 9TH EDITION EVEN MORE USEFUL AS A TEACHING TOOL FOR INSTRUCTORS AND AS A LEARNING TOOL FOR STUDENTS. SHOWING THAT CALCULUS IS BOTH PRACTICAL AND BEAUTIFUL, THE STEWART APPROACH ENHANCES UNDERSTANDING AND BUILDS CONFIDENCE FOR MILLIONS OF STUDENTS WORLDWIDE. IMPORTANT NOTICE: MEDIA CONTENT REFERENCED WITHIN THE PRODUCT DESCRIPTION OR THE PRODUCT TEXT MAY NOT BE AVAILABLE IN THE EBOOK VERSION.

A PRIMER OF REAL FUNCTIONS: FOURTH EDITION RALPH P. BOAS 1996-12-31 THIS IS A REVISED, UPDATED, AND SIGNIFICANTLY AUGMENTED EDITION OF A CLASSIC CARUS MONOGRAPH (A BESTSELLER FOR OVER 25 YEARS) ON THE THEORY OF FUNCTIONS OF A REAL VARIABLE. EARLIER EDITIONS OF THIS CLASSIC CARUS MONOGRAPH COVERED SETS, METRIC SPACES, CONTINUOUS FUNCTIONS, AND DIFFERENTIABLE FUNCTIONS. THE FOURTH EDITION ADDS SECTIONS ON MEASURABLE SETS AND FUNCTIONS, THE LEBESGUE AND STIELTJES INTEGRALS, AND APPLICATIONS. THE BOOK RETAINS THE INFORMAL CHATTY STYLE OF THE PREVIOUS EDITIONS, REMAINING ACCESSIBLE TO READERS WITH SOME MATHEMATICAL SOPHISTICATION AND A BACKGROUND IN CALCULUS. THE BOOK IS, THUS, SUITABLE EITHER FOR SELF-STUDY OR FOR SUPPLEMENTAL READING IN A COURSE ON ADVANCED CALCULUS OR REAL ANALYSIS. NOT INTENDED AS A SYSTEMATIC TREATISE, THIS BOOK HAS MORE THE CHARACTER OF A SEQUENCE OF LECTURES ON A VARIETY OF INTERESTING TOPICS CONNECTED WITH REAL FUNCTIONS. MANY OF THESE TOPICS ARE NOT COMMONLY ENCOUNTERED IN UNDERGRADUATE TEXTBOOKS: E.G., THE EXISTENCE OF CONTINUOUS EVERYWHERE-OSCILLATING FUNCTIONS (VIA THE BAIRE CATEGORY THEOREM); THE UNIVERSAL CHORD THEOREM; TWO FUNCTIONS HAVING EQUAL DERIVATIVES, YET NOT DIFFERING BY A CONSTANT; AND APPLICATION OF STIELTJES INTEGRATION TO THE SPEED OF CONVERGENCE OF INFINITE SERIES. THIS BOOK RECAPTURES THE SENSE OF WONDER THAT WAS ASSOCIATED WITH THE SUBJECT IN ITS EARLY DAYS. IT IS A MUST FOR MATHEMATICS LIBRARIES.

TENSORS, DIFFERENTIAL FORMS, AND VARIATIONAL PRINCIPLES DAVID LOVELOCK 2012-04-20 INCISIVE, SELF-CONTAINED ACCOUNT OF TENSOR ANALYSIS AND THE CALCULUS OF EXTERIOR DIFFERENTIAL FORMS, INTERACTION BETWEEN THE CONCEPT OF INVARIANCE AND THE CALCULUS OF VARIATIONS. EMPHASIS IS ON ANALYTICAL TECHNIQUES. INCLUDES PROBLEMS.

INTRODUCTION TO TOPOLOGY THEODORE W. GAMELIN 2013-04-22 THIS TEXT EXPLAINS NONTRIVIAL APPLICATIONS OF METRIC SPACE TOPOLOGY TO ANALYSIS. COVERS METRIC SPACE, POINT-SET TOPOLOGY, AND ALGEBRAIC TOPOLOGY. INCLUDES EXERCISES, SELECTED ANSWERS, AND 51 ILLUSTRATIONS. 1983 EDITION.

INTRODUCTION TO NON-EUCLIDEAN GEOMETRY HAROLD E. WOLFE 2013-09-26 COLLEGE-LEVEL TEXT FOR ELEMENTARY COURSES COVERS THE FIFTH POSTULATE, HYPERBOLIC PLANE GEOMETRY AND TRIGONOMETRY, AND ELLIPTIC PLANE GEOMETRY AND TRIGONOMETRY. APPENDIXES OFFER BACKGROUND ON EUCLIDEAN GEOMETRY. NUMEROUS EXERCISES. 1945 EDITION.

THE CALCULUS PRIMER WILLIAM L. SCHAAF 2014-03-05 COMPREHENSIVE BUT CONCISE, THIS INTRODUCTION TO DIFFERENTIAL AND INTEGRAL CALCULUS COVERS ALL THE TOPICS USUALLY INCLUDED IN A FIRST COURSE. THE STRAIGHTFORWARD DEVELOPMENT PLACES LESS EMPHASIS ON MATHEMATICAL RIGOR, AND THE INFORMAL MANNER OF PRESENTATION SETS STUDENTS AT EASE. MANY CAREFULLY WORKED-OUT EXAMPLES ILLUMINATE THE TEXT, IN ADDITION TO NUMEROUS DIAGRAMMS, PROBLEMS, AND ANSWERS. BEARING THE NEEDS OF BEGINNERS CONSTANTLY IN MIND, THE TREATMENT COVERS ALL THE BASIC CONCEPTS OF CALCULUS: FUNCTIONS, DERIVATIVES, DIFFERENTIATION OF ALGEBRAIC AND TRANSCENDENTAL FUNCTIONS, PARTIAL DIFFERENTIATION, INDETERMINATE FORMS, GENERAL AND SPECIAL METHODS OF INTEGRATION, THE DEFINITE INTEGRAL, PARTIAL INTEGRATION, AND OTHER

FUNDAMENTALS. AMPLE EXERCISES PERMIT STUDENTS TO TEST THEIR GRASP OF SUBJECTS BEFORE MOVING FORWARD, MAKING THIS VOLUME APPROPRIATE NOT ONLY FOR CLASSROOM USE BUT ALSO FOR REVIEW AND HOME STUDY.

A PRIMER ON THE CALCULUS OF VARIATIONS AND OPTIMAL CONTROL THEORY MIKE MESTERTON-GIBBONS 2009 THE CALCULUS OF VARIATIONS IS USED TO FIND FUNCTIONS THAT OPTIMIZE QUANTITIES EXPRESSED IN TERMS OF INTEGRALS. OPTIMAL CONTROL THEORY SEEKS TO FIND FUNCTIONS THAT MINIMIZE COST INTEGRALS FOR SYSTEMS DESCRIBED BY DIFFERENTIAL EQUATIONS. THIS BOOK IS AN INTRODUCTION TO BOTH THE CLASSICAL THEORY OF THE CALCULUS OF VARIATIONS AND THE MORE MODERN DEVELOPMENTS OF OPTIMAL CONTROL THEORY FROM THE PERSPECTIVE OF AN APPLIED MATHEMATICIAN. IT FOCUSES ON UNDERSTANDING CONCEPTS AND HOW TO APPLY THEM. THE RANGE OF POTENTIAL APPLICATIONS IS BROAD: THE CALCULUS OF VARIATIONS AND OPTIMAL CONTROL THEORY HAVE BEEN WIDELY USED IN NUMEROUS WAYS IN BIOLOGY, CRIMINOLOGY, ECONOMICS, ENGINEERING, FINANCE, MANAGEMENT SCIENCE, AND PHYSICS. APPLICATIONS DESCRIBED IN THIS BOOK INCLUDE CANCER CHEMOTHERAPY, NAVIGATIONAL CONTROL, AND RENEWABLE RESOURCE HARVESTING. THE PREREQUISITES FOR THE BOOK ARE MODEST: THE STANDARD CALCULUS SEQUENCE, A FIRST COURSE ON ORDINARY DIFFERENTIAL EQUATIONS, AND SOME FACILITY WITH THE USE OF MATHEMATICAL SOFTWARE. IT IS SUITABLE FOR AN UNDERGRADUATE OR BEGINNING GRADUATE COURSE, OR FOR SELF STUDY. IT PROVIDES EXCELLENT PREPARATION FOR MORE ADVANCED BOOKS AND COURSES ON THE CALCULUS OF VARIATIONS AND OPTIMAL CONTROL THEORY.

A SOURCE BOOK IN MATHEMATICS DAVID EUGENE SMITH 1959

A CONCISE HISTORY OF MATHEMATICS DIRK JAN STRUIK 1967 THIS COMPACT, WELL-WRITTEN HISTORY COVERS MAJOR MATHEMATICAL IDEAS AND TECHNIQUES FROM THE ANCIENT NEAR EAST TO 20TH-CENTURY COMPUTER THEORY, SURVEYING THE WORKS OF ARCHIMEDES, PASCAL, GAUSS, HILBERT, AND MANY OTHERS. "THE AUTHOR'S ABILITY AS A FIRST-CLASS HISTORIAN AS WELL AS AN ABLE MATHEMATICIAN HAS ENABLED HIM TO PRODUCE A WORK WHICH IS UNQUESTIONABLY ONE OF THE BEST." — NATURE.

PROF. E. MCSQUARED'S CALCULUS PRIMER SWANN, HOWARD 2014-12-17 HIGHLY RECOMMENDED." — THE TIMES (LONDON) EDUCATIONAL SUPPLEMENT "IT WILL DELIGHT BOTH YOUNG AND OLD." — THE AMERICAN MATHEMATICAL MONTHLY "A TRULY LIVELY AND UNUSUAL, NOT TO MENTION PRECISE, TEXTBOOK." — NEW YORK PUBLIC LIBRARY "THE CALCULUS BOOK LOOKS GREAT. THERE HAS NEVER BEEN ANYTHING LIKE IT." — MARTIN GARDNER, LONGTIME AUTHOR OF THE "MATHEMATICAL GAMES" COLUMN FOR SCIENTIFIC AMERICAN FILLED WITH HUMOROUS ILLUSTRATIONS AS WELL AS LIVELY AND ABSORBING MATHEMATICAL LEARNING, THIS CALCULUS COMIC BOOK REQUIRES ONLY A FAMILIARITY WITH HIGH SCHOOL ALGEBRA AND A SENSE OF HUMOR. PROF. E. MCSQUARED INTRODUCES EACH CONCEPT IN DIFFERENTIAL CALCULUS IN THE FORM OF A MEMORABLE CHARACTER AND HELPS READERS DEVELOP THEIR INTUITIVE POWERS. A LIFESAVER FOR STRUGGLING STUDENTS AND A TREAT FOR THE MATHEMATICALLY MINDED, THE BOOK INCLUDES HELPFUL EXERCISES AND COMPLETE SOLUTIONS.