

Basic Mathematics Pdf By Serge Lang

IF YOU ALLY DEPENDENCE SUCH A REFERRED **BASIC MATHEMATICS PDF BY SERGE LANG** EBOOK THAT WILL OFFER YOU WORTH, ACQUIRE THE COMPLETELY BEST SELLER FROM US CURRENTLY FROM SEVERAL PREFERRED AUTHORS. IF YOU DESIRE TO HILARIOUS BOOKS, LOTS OF NOVELS, TALE, JOKES, AND MORE FICTIONS COLLECTIONS ARE IN ADDITION TO LAUNCHED, FROM BEST SELLER TO ONE OF THE MOST CURRENT RELEASED.

YOU MAY NOT BE PERPLEXED TO ENJOY EVERY EBOOK COLLECTIONS BASIC MATHEMATICS PDF BY SERGE LANG THAT WE WILL UTTERLY OFFER. IT IS NOT AROUND THE COSTS. ITS ABOUT WHAT YOU INFATUATION CURRENTLY. THIS BASIC MATHEMATICS PDF BY SERGE LANG , AS ONE OF THE MOST IN ACTION SELLERS HERE WILL VERY BE ALONG WITH THE BEST OPTIONS TO REVIEW.

SHORT CALCULUS - SERGE LANG 2001-11-29

FROM THE REVIEWS "THIS IS A REPRINT OF THE ORIGINAL EDITION OF LANG'S 'A FIRST COURSE IN CALCULUS', WHICH WAS FIRST PUBLISHED IN 1964....THE TREATMENT IS 'AS RIGOROUS AS ANY MATHEMATICIAN WOULD WISH IT'....[THE EXERCISES] ARE REFRESHINGLY SIMPLY STATED, WITHOUT ANY EXTRANEIOUS VERBIAGE, AND AT TIMES QUITE CHALLENGING.... THERE ARE ANSWERS TO ALL THE EXERCISES SET AND SOME SUPPLEMENTARY PROBLEMS ON EACH TOPIC TO TAX EVEN THE MOST ABLE." --MATHEMATICAL GAZETTE

A FIRST COURSE IN CALCULUS - SERGE LANG 1998-03-16

THIS FIFTH EDITION OF LANG'S BOOK COVERS ALL THE TOPICS TRADITIONALLY TAUGHT IN THE FIRST-YEAR CALCULUS SEQUENCE. DIVIDED INTO FIVE PARTS, EACH SECTION OF A FIRST COURSE IN CALCULUS CONTAINS EXAMPLES AND APPLICATIONS RELATING TO THE TOPIC COVERED. IN ADDITION, THE REAR OF THE BOOK CONTAINS DETAILED SOLUTIONS TO A LARGE NUMBER OF THE EXERCISES, ALLOWING THEM TO BE USED AS WORKED-OUT EXAMPLES -- ONE OF THE MAIN IMPROVEMENTS OVER PREVIOUS EDITIONS.

ALGEBRA - I.M. GELFAND 2003-07-09

THIS BOOK IS ABOUT ALGEBRA. THIS IS A VERY OLD SCIENCE AND ITS GEMS HAVE LOST THEIR CHARM FOR US THROUGH EVERYDAY USE. WE HAVE TRIED IN THIS BOOK TO REFRESH THEM FOR YOU. THE MAIN PART OF THE BOOK IS MADE UP OF PROBLEMS. THE BEST WAY TO DEAL WITH THEM IS: SOLVE THE PROBLEM BY YOURSELF - COMPARE YOUR SOLUTION WITH THE SOLUTION IN THE BOOK (IF IT EXISTS) - GO TO THE NEXT PROBLEM. HOWEVER, IF YOU HAVE DIFFICULTIES SOLVING A PROBLEM (AND SOME OF THEM ARE QUITE DIFFICULT), YOU MAY READ THE HINT OR START TO READ THE SOLUTION. IF THERE IS NO SOLUTION IN THE BOOK FOR SOME PROBLEM, YOU MAY SKIP IT (IT IS NOT HEAVILY USED IN THE SEQUEL) AND RETURN TO IT LATER. THE BOOK IS DIVIDED INTO SECTIONS DEVOTED TO DIFFERENT TOPICS. SOME OF THEM ARE VERY SHORT, OTHERS ARE RATHER LONG. OF COURSE, YOU KNOW ARITHMETIC PRETTY WELL. HOWEVER, WE SHALL GO THROUGH IT ONCE MORE, STARTING WITH EASY THINGS. 2

EXCHANGE OF TERMS IN ADDITION LET'S ADD 3 AND 5:

$3+5=8$. AND NOW CHANGE THE ORDER: $5+3=8$. WE GET THE

SAME RESULT. ADDING THREE APPLES TO FIVE APPLES IS THE

SAME AS ADDING FIVE APPLES TO THREE - APPLES DO NOT

DISAPPEAR AND WE GET EIGHT OF THEM IN BOTH CASES. 3

EXCHANGE OF TERMS IN MULTIPLICATION MULTIPLICATION

HAS A SIMILAR PROPERTY. BUT LET US FIRST AGREE ON

NOTATION.

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.

BASIC MATHEMATICS - SERGE LANG 1971

INTRODUCTION TO LINEAR ALGEBRA - SERGE LANG

2012-12-06

THIS IS A SHORT TEXT IN LINEAR ALGEBRA, INTENDED FOR A ONE-TERM COURSE. IN THE FIRST CHAPTER, LANG DISCUSSES THE RELATION BETWEEN THE GEOMETRY AND THE ALGEBRA UNDERLYING THE SUBJECT, AND GIVES CONCRETE EXAMPLES OF THE NOTIONS WHICH APPEAR LATER IN THE BOOK. HE THEN STARTS WITH A DISCUSSION OF LINEAR EQUATIONS, MATRICES AND GAUSSIAN ELIMINATION, AND PROCEEDS TO DISCUSS VECTOR SPACES, LINEAR MAPS, SCALAR PRODUCTS, DETERMINANTS, AND EIGENVALUES. THE BOOK CONTAINS A LARGE NUMBER OF EXERCISES, SOME OF THE ROUTINE COMPUTATIONAL TYPE, WHILE OTHERS ARE CONCEPTUAL.

ALGEBRAIC NUMBER THEORY - SERGE LANG 2013-06-29

THIS IS A SECOND EDITION OF LANG'S WELL-KNOWN TEXTBOOK. IT COVERS ALL OF THE BASIC MATERIAL OF CLASSICAL ALGEBRAIC NUMBER THEORY, GIVING THE STUDENT THE BACKGROUND NECESSARY FOR THE STUDY OF FURTHER TOPICS IN ALGEBRAIC NUMBER THEORY, SUCH AS CYCLOTOMIC FIELDS, OR MODULAR FORMS. "LANG'S BOOKS ARE ALWAYS OF GREAT VALUE FOR THE GRADUATE STUDENT AND THE RESEARCH MATHEMATICIAN. THIS UPDATED EDITION OF ALGEBRAIC NUMBER THEORY IS NO EXCEPTION." --- MATHEMATICAL REVIEWS

SL2(R) - S. LANG 2012-12-06

SL2(R) GIVES THE STUDENT AN INTRODUCTION TO THE INFINITE DIMENSIONAL REPRESENTATION THEORY OF SEMISIMPLE LIE GROUPS BY CONCENTRATING ON ONE EXAMPLE - SL2(R). THIS FIELD IS OF INTEREST NOT ONLY FOR ITS OWN SAKE, BUT FOR ITS CONNECTIONS WITH OTHER AREAS SUCH AS NUMBER THEORY, AS BROUGHT OUT, FOR EXAMPLE, IN THE WORK OF LANGLANDS. THE RAPID DEVELOPMENT OF REPRESENTATION THEORY OVER THE PAST 40 YEARS HAS MADE IT INCREASINGLY DIFFICULT FOR A STUDENT TO ENTER THE FIELD.

THIS BOOK MAKES THE THEORY ACCESSIBLE TO A WIDE AUDIENCE, ITS ONLY PREREQUISITES BEING A KNOWLEDGE OF REAL ANALYSIS, AND SOME DIFFERENTIAL EQUATIONS.

INTRODUCTION TO ALGEBRAIC AND ABELIAN FUNCTIONS - SERGE LANG 2012-12-06

INTRODUCTION TO ALGEBRAIC AND ABELIAN FUNCTIONS IS A SELF-CONTAINED PRESENTATION OF A FUNDAMENTAL SUBJECT IN ALGEBRAIC GEOMETRY AND NUMBER THEORY. FOR THIS REVISED EDITION, THE MATERIAL ON THETA FUNCTIONS HAS BEEN EXPANDED, AND THE EXAMPLE OF THE FERMAT CURVES IS CARRIED THROUGHOUT THE TEXT. THIS VOLUME IS GEARED TOWARD A SECOND-YEAR GRADUATE COURSE, BUT IT LEADS NATURALLY TO THE STUDY OF MORE ADVANCED BOOKS LISTED IN THE BIBLIOGRAPHY.

ALGEBRA - 1993

COMPLEX ANALYSIS - SERGE LANG 2013-06-29

THE PRESENT BOOK IS MEANT AS A TEXT FOR A COURSE ON COMPLEX ANALYSIS AT THE ADVANCED UNDERGRADUATE LEVEL, OR FIRST-YEAR GRADUATE LEVEL. SOMEWHAT MORE MATERIAL HAS BEEN INCLUDED THAN CAN BE COVERED AT LEISURE IN ONE TERM, TO GIVE OPPORTUNITIES FOR THE INSTRUCTOR TO EXERCISE HIS TASTE, AND LEAD THE COURSE IN WHATEVER DIRECTION STRIKES HIS FANCY AT THE TIME. A LARGE NUMBER OF ROUTINE EXERCISES ARE INCLUDED FOR THE MORE STANDARD PORTIONS, AND A FEW HARDER EXERCISES OF STRIKING THEORETICAL INTEREST ARE ALSO INCLUDED, BUT MAY BE OMITTED IN COURSES ADDRESSED TO LESS ADVANCED STUDENTS. IN SOME SENSE, I THINK THE CLASSICAL GERMAN PREWAR TEXTS WERE THE BEST (HURWITZ-COURANT, KNOPP, BIEBERBACH, ETC.) AND I WOULD RECOMMEND TO ANYONE TO LOOK THROUGH THEM. MORE RECENT TEXTS HAVE EMPHASIZED CONNECTIONS WITH REAL ANALYSIS, WHICH IS IMPORTANT, BUT AT THE COST OF EXHIBITING SUCCINCTLY AND CLEARLY WHAT IS PECULIAR ABOUT COMPLEX ANALYSIS: THE POWER SERIES EXPANSION, THE UNIQUENESS OF ANALYTIC CONTINUATION, AND THE CALCULUS OF RESIDUES. THE SYSTEMATIC ELEMENTARY DEVELOPMENT OF FORMAL AND CONVERGENT POWER SERIES WAS STANDARD FARE IN THE GERMAN TEXTS, BUT ONLY CARTAN, IN THE MORE RECENT BOOKS, INCLUDES THIS MATERIAL, WHICH I THINK IS QUITE ESSENTIAL, E. G. , FOR DIFFERENTIAL EQUATIONS. I HAVE WRITTEN A SHORT TEXT, EXHIBITING THESE FEATURES, MAKING IT APPLICABLE TO A WIDE VARIETY OF TASTES. THE BOOK ESSENTIALLY DECOMPOSES INTO TWO PARTS.

INTRODUCTION TO MODULAR FORMS - SERGE LANG 2001-08-01

FROM THE REVIEWS: "THIS BOOK GIVES A THOROUGH INTRODUCTION TO SEVERAL THEORIES THAT ARE FUNDAMENTAL TO RESEARCH ON MODULAR FORMS. MOST OF THE MATERIAL, DESPITE ITS IMPORTANCE, HAD PREVIOUSLY BEEN UNAVAILABLE IN TEXTBOOK FORM. COMPLETE AND READABLE PROOFS ARE GIVEN... IN CONCLUSION, THIS BOOK IS A WELCOME ADDITION TO THE LITERATURE FOR THE GROWING NUMBER OF STUDENTS AND MATHEMATICIANS IN OTHER FIELDS WHO WANT TO UNDERSTAND THE RECENT DEVELOPMENTS IN THE THEORY OF MODULAR FORMS." #MATHEMATICAL REVIEWS# "THIS BOOK WILL CERTAINLY BE INDISPENSABLE TO ALL THOSE WISHING TO GET AN UP-TO-DATE INITIATION TO

THE THEORY OF MODULAR FORMS." #PUBLICATIONES MATHEMATICAE#

MATH! - SERGE LANG 2013-03-14

UNDERGRADUATE ANALYSIS - SERGE LANG 2013-03-14

THIS LOGICALLY SELF-CONTAINED INTRODUCTION TO ANALYSIS CENTERS AROUND THOSE PROPERTIES THAT HAVE TO DO WITH UNIFORM CONVERGENCE AND UNIFORM LIMITS IN THE CONTEXT OF DIFFERENTIATION AND INTEGRATION. FROM THE REVIEWS: "THIS MATERIAL CAN BE GONE OVER QUICKLY BY THE REALLY WELL-PREPARED READER, FOR IT IS ONE OF THE BOOK'S PEDAGOGICAL STRENGTHS THAT THE PATTERN OF DEVELOPMENT LATER RECAPITULATES THIS MATERIAL AS IT DEEPENS AND GENERALIZES IT." --AMERICAN MATHEMATICAL SOCIETY

FUNDAMENTALS OF DIFFERENTIAL GEOMETRY - SERGE LANG 2012-12-06

THIS BOOK PROVIDES AN INTRODUCTION TO THE BASIC CONCEPTS IN DIFFERENTIAL TOPOLOGY, DIFFERENTIAL GEOMETRY, AND DIFFERENTIAL EQUATIONS, AND SOME OF THE MAIN BASIC THEOREMS IN ALL THREE AREAS. THIS NEW EDITION INCLUDES NEW CHAPTERS, SECTIONS, EXAMPLES, AND EXERCISES. FROM THE REVIEWS: "THERE ARE MANY BOOKS ON THE FUNDAMENTALS OF DIFFERENTIAL GEOMETRY, BUT THIS ONE IS QUITE EXCEPTIONAL; THIS IS NOT SURPRISING FOR THOSE WHO KNOW SERGE LANG'S BOOKS." --EMS NEWSLETTER

ABELIAN VARIETIES - S. LANG 2012-09-07

PRINCIPLES OF MATHEMATICS - CARL BARNETT ALLENDOERFER 1953

INTRODUCTION TO ALGEBRAIC GEOMETRY - SERGE LANG 2019-03-20

RAPID, CONCISE, SELF-CONTAINED INTRODUCTION ASSUMES ONLY FAMILIARITY WITH ELEMENTARY ALGEBRA. SUBJECTS INCLUDE ALGEBRAIC VARIETIES; PRODUCTS, PROJECTIONS, AND CORRESPONDENCES; NORMAL VARIETIES; DIFFERENTIAL FORMS; THEORY OF SIMPLE POINTS; ALGEBRAIC GROUPS; MORE. 1958 EDITION.

TOPICS IN NEVANLINNA THEORY - SERGE LANG 2006-11-14

THESE ARE NOTES OF LECTURES ON NEVANLINNA THEORY, IN THE CLASSICAL CASE OF MEROMORPHIC FUNCTIONS, AND THE GENERALIZATION BY CARLSON-GRIFFITH TO EQUIDIMENSIONAL HOLOMORPHIC MAPS USING AS DOMAIN SPACE FINITE COVERINGS OF \mathbb{C} RESP. \mathbb{C}^n . CONJECTURALLY BEST POSSIBLE ERROR TERMS ARE OBTAINED FOLLOWING A METHOD OF AHLFORS AND WONG. THIS IS ESPECIALLY SIGNIFICANT WHEN OBTAINING UNIFORMITY FOR THE ERROR TERM W.R.T. COVERINGS, SINCE THE ANALYTIC YIELDS CASE A STRONG VERSION OF VOJTA'S CONJECTURES IN THE NUMBER-THEORETIC CASE INVOLVING THE THEORY OF HEIGHTS. THE COUNTING FUNCTION FOR THE RAMIFIED LOCUS IN THE ANALYTIC CASE IS THE ANALOGUE OF THE NORMALIZED LOGARITHMIC DISCRIMINANT IN THE NUMBER-THEORETIC CASE, AND IS SEEN TO OCCUR WITH THE EXPECTED COEFFICIENT 1. THE ERROR TERMS ARE GIVEN INVOLVING AN APPROXIMATING FUNCTION (TYPE FUNCTION) SIMILAR TO THE PROBABILISTIC TYPE

FUNCTION OF KHITCHINE IN NUMBER THEORY. THE LEISURELY EXPOSITION ALLOWS READERS WITH NO BACKGROUND IN NEVANLINNA THEORY TO APPROACH SOME OF THE BASIC REMAINING PROBLEMS AROUND THE ERROR TERM. IT MAY BE USED AS A CONTINUATION OF A GRADUATE COURSE IN COMPLEX ANALYSIS, ALSO LEADING INTO COMPLEX DIFFERENTIAL GEOMETRY.

GEOMETRY - SERGE LANG 2013-04-17

AT LAST: GEOMETRY IN AN EXEMPLARY, ACCESSIBLE AND ATTRACTIVE FORM! THE AUTHORS EMPHASISE BOTH THE INTELLECTUALLY STIMULATING PARTS OF GEOMETRY AND ROUTINE ARGUMENTS OR COMPUTATIONS IN CONCRETE OR CLASSICAL CASES, AS WELL AS PRACTICAL AND PHYSICAL APPLICATIONS. THEY ALSO SHOW STUDENTS THE FUNDAMENTAL CONCEPTS AND THE DIFFERENCE BETWEEN IMPORTANT RESULTS AND MINOR TECHNICAL ROUTINES. ALTOGETHER, THE TEXT PRESENTS A COHERENT HIGH SCHOOL CURRICULUM FOR THE GEOMETRY COURSE, NATURALLY BACKED BY NUMEROUS EXAMPLES AND EXERCISES.

NUMBERS AND GEOMETRY - JOHN STILLWELL 2012-12-06

A BEAUTIFUL AND RELATIVELY ELEMENTARY ACCOUNT OF A PART OF MATHEMATICS WHERE THREE MAIN FIELDS - ALGEBRA, ANALYSIS AND GEOMETRY - MEET. THE BOOK PROVIDES A BROAD VIEW OF THESE SUBJECTS AT THE LEVEL OF CALCULUS, WITHOUT BEING A CALCULUS BOOK. ITS ROOTS ARE IN ARITHMETIC AND GEOMETRY, THE TWO OPPOSITE POLES OF MATHEMATICS, AND THE SOURCE OF HISTORIC CONCEPTUAL CONFLICT. THE RESOLUTION OF THIS CONFLICT, AND ITS ROLE IN THE DEVELOPMENT OF MATHEMATICS, IS ONE OF THE MAIN STORIES IN THE BOOK. STILLWELL HAS CHOSEN AN ARRAY OF EXCITING AND WORTHWHILE TOPICS AND ELEGANTLY COMBINES MATHEMATICAL HISTORY WITH MATHEMATICS. HE COVERS THE MAIN IDEAS OF EUCLID, BUT WITH 2000 YEARS OF EXTRA INSIGHTS ATTACHED. PRESUPPOSING ONLY HIGH SCHOOL ALGEBRA, IT CAN BE READ BY ANY WELL PREPARED STUDENT ENTERING UNIVERSITY. MOREOVER, THIS BOOK WILL BE POPULAR WITH GRADUATE STUDENTS AND RESEARCHERS IN MATHEMATICS DUE TO ITS ATTRACTIVE AND UNUSUAL TREATMENT OF FUNDAMENTAL TOPICS. A SET OF WELL-WRITTEN EXERCISES AT THE END OF EACH SECTION ALLOWS NEW IDEAS TO BE INSTANTLY TESTED AND REINFORCED.

PRECALCULUS - SHELDON AXLER 2017-08-21

SHELDON AXLER'S PRECALCULUS: A PRELUDE TO CALCULUS, 3RD EDITION FOCUSES ONLY ON TOPICS THAT STUDENTS ACTUALLY NEED TO SUCCEED IN CALCULUS. THIS BOOK IS GEARED TOWARDS COURSES WITH INTERMEDIATE ALGEBRA PREREQUISITES AND IT DOES NOT ASSUME THAT STUDENTS REMEMBER ANY TRIGONOMETRY. IT COVERS TOPICS SUCH AS INVERSE FUNCTIONS, LOGARITHMS, HALF-LIFE AND EXPONENTIAL GROWTH, AREA, e , THE EXPONENTIAL FUNCTION, THE NATURAL LOGARITHM AND TRIGONOMETRY.

THE BEAUTY OF DOING MATHEMATICS - SERGE LANG 2012-12-06

IF SOMEONE TOLD YOU THAT MATHEMATICS IS QUITE BEAUTIFUL, YOU MIGHT BE SURPRISED. BUT YOU SHOULD KNOW THAT SOME PEOPLE DO MATHEMATICS ALL THEIR LIVES, AND CREATE MATHEMATICS, JUST AS A COMPOSER CREATES MUSIC. USUALLY, EVERY TIME A MATHEMATICIAN SOLVES A

PROBLEM, THIS GIVES RISE TO MANY OTHERS, NEW AND JUST AS BEAUTIFUL AS THE ONE WHICH WAS SOLVED. OF COURSE, OFTEN THESE PROBLEMS ARE QUITE DIFFICULT, AND AS IN OTHER DISCIPLINES CAN BE UNDERSTOOD ONLY BY THOSE WHO HAVE STUDIED THE SUBJECT WITH SOME DEPTH, AND KNOW THE SUBJECT WELL. IN 1981, JEAN BRETTE, WHO IS RESPONSIBLE FOR THE MATHEMATICS SECTION OF THE PALAIS DE LA DECOUVERTE (SCIENCE MUSEUM) IN PARIS, INVITED ME TO GIVE A CONFERENCE AT THE PALAIS. I HAD NEVER GIVEN SUCH A CONFERENCE BEFORE, TO A NON-MATHEMATICAL PUBLIC. HERE WAS A CHALLENGE: COULD I COMMUNICATE TO SUCH A SATURDAY AFTERNOON AUDIENCE WHAT IT MEANS TO DO MATHEMATICS, AND WHY ONE DOES MATHEMATICS? BY "MATHEMATICS" I MEAN PURE MATHEMATICS. THIS DOESN'T MEAN THAT PURE MATH IS BETTER THAN OTHER TYPES OF MATH, BUT I AND A NUMBER OF OTHERS DO PURE MATHEMATICS, AND IT'S ABOUT THEM THAT I AM NOW CONCERNED. MATH HAS A BAD REPUTATION, STEMMING FROM THE MOST ELEMENTARY LEVELS. THE WORD IS IN FACT USED IN MANY DIFFERENT CONTEXTS. FIRST, I HAD TO EXPLAIN BRIEFLY THESE POSSIBLE CONTEXTS, AND THE ONE WITH WHICH I WANTED TO DEAL.

BASIC MATHEMATICS - SERGE LANG 1998-09-01

THIS TEXT IN BASIC MATHEMATICS IS IDEAL FOR HIGH SCHOOL OR COLLEGE STUDENTS. IT PROVIDES A FIRM FOUNDATION IN BASIC PRINCIPLES OF MATHEMATICS AND THEREBY ACTS AS A SPRINGBOARD INTO CALCULUS, LINEAR ALGEBRA AND OTHER MORE ADVANCED TOPICS. THE INFORMATION IS CLEARLY PRESENTED, AND THE AUTHOR DEVELOPS CONCEPTS IN SUCH A MANNER TO SHOW HOW ONE SUBJECT MATTER CAN RELATE AND EVOLVE INTO ANOTHER.

MATH TALKS FOR UNDERGRADUATES - SERGE LANG 2012-12-06

FOR MANY YEARS, SERGE LANG HAS GIVEN TALKS ON SELECTED ITEMS IN MATHEMATICS WHICH COULD BE EXTRACTED AT A LEVEL UNDERSTANDABLE BY THOSE WHO HAVE HAD CALCULUS. WRITTEN IN A CONVERSATIONAL TONE, LANG NOW PRESENTS A COLLECTION OF THOSE TALKS AS A BOOK COVERING SUCH TOPICS AS: PRIME NUMBERS, THE ABC CONJECTURE, APPROXIMATION THEOREMS OF ANALYSIS, BRUHAT-TITS SPACES, AND HARMONIC AND SYMMETRIC POLYNOMIALS. EACH TALK IS WRITTEN IN A LIVELY AND INFORMAL STYLE MEANT TO ENGAGE ANY READER LOOKING FOR FURTHER INSIGHT INTO MATHEMATICS.

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.

REAL MATHEMATICAL ANALYSIS - CHARLES CHAPMAN PUGH 2013-03-19

WAS PLANE GEOMETRY YOUR FAVOURITE MATH COURSE IN HIGH SCHOOL? DID YOU LIKE PROVING THEOREMS? ARE YOU SICK OF MEMORISING INTEGRALS? IF SO, REAL ANALYSIS

COULD BE YOUR CUP OF TEA. IN CONTRAST TO CALCULUS AND ELEMENTARY ALGEBRA, IT INVOLVES NEITHER FORMULA MANIPULATION NOR APPLICATIONS TO OTHER FIELDS OF SCIENCE. NONE. IT IS PURE MATHEMATICS, AND IT IS SURE TO APPEAL TO THE BUDDING PURE MATHEMATICIAN. IN THIS NEW INTRODUCTION TO UNDERGRADUATE REAL ANALYSIS THE AUTHOR TAKES A DIFFERENT APPROACH FROM PAST STUDIES OF THE SUBJECT, BY STRESSING THE IMPORTANCE OF PICTURES IN MATHEMATICS AND HARD PROBLEMS. THE EXPOSITION IS INFORMAL AND RELAXED, WITH MANY HELPFUL ASIDES, EXAMPLES AND OCCASIONAL COMMENTS FROM MATHEMATICIANS LIKE DIEUDONNE, LITTLEWOOD AND OSSERMAN. THE AUTHOR HAS TAUGHT THE SUBJECT MANY TIMES OVER THE LAST 35 YEARS AT BERKELEY AND THIS BOOK IS BASED ON THE HONOURS VERSION OF THIS COURSE. THE BOOK CONTAINS AN EXCELLENT SELECTION OF MORE THAN 500 EXERCISES.

CALCULUS OF SEVERAL VARIABLES - SERGE LANG
2012-12-06

THIS NEW, REVISED EDITION COVERS ALL OF THE BASIC TOPICS IN CALCULUS OF SEVERAL VARIABLES, INCLUDING VECTORS, CURVES, FUNCTIONS OF SEVERAL VARIABLES, GRADIENT, TANGENT PLANE, MAXIMA AND MINIMA, POTENTIAL FUNCTIONS, CURVE INTEGRALS, GREEN'S THEOREM, MULTIPLE INTEGRALS, SURFACE INTEGRALS, STOKES' THEOREM, AND THE INVERSE MAPPING THEOREM AND ITS CONSEQUENCES. IT INCLUDES MANY COMPLETELY WORKED-OUT PROBLEMS.

UNDERGRADUATE ALGEBRA - SERGE LANG 2013-06-29

THE COMPANION TITLE, LINEAR ALGEBRA, HAS SOLD OVER 8,000 COPIES THE WRITING STYLE IS VERY ACCESSIBLE THE MATERIAL CAN BE COVERED EASILY IN A ONE-YEAR OR ONE-TERM COURSE INCLUDES NOAH SNYDER'S PROOF OF THE MASON-STOTHERS POLYNOMIAL ABC THEOREM NEW MATERIAL INCLUDED ON PRODUCT STRUCTURE FOR MATRICES INCLUDING DESCRIPTIONS OF THE CONJUGATION REPRESENTATION OF THE DIAGONAL GROUP

NUMBER THEORY, ANALYSIS AND GEOMETRY - DORIAN GOLDFELD 2011-12-21

SERGE LANG WAS AN ICONIC FIGURE IN MATHEMATICS, BOTH FOR HIS OWN IMPORTANT WORK AND FOR THE INDELIBLE IMPACT HE LEFT ON THE FIELD OF MATHEMATICS, ON HIS STUDENTS, AND ON HIS COLLEAGUES. OVER THE COURSE OF HIS CAREER, LANG TRAVERSED A TREMENDOUS AMOUNT OF MATHEMATICAL GROUND. AS HE MOVED FROM SUBJECT TO SUBJECT, HE FOUND ANALOGIES THAT LED TO IMPORTANT QUESTIONS IN SUCH AREAS AS NUMBER THEORY, ARITHMETIC GEOMETRY, AND THE THEORY OF NEGATIVELY CURVED SPACES. LANG'S CONJECTURES WILL KEEP MANY MATHEMATICIANS OCCUPIED FAR INTO THE FUTURE. IN THE SPIRIT OF LANG'S VAST CONTRIBUTION TO MATHEMATICS, THIS MEMORIAL VOLUME CONTAINS ARTICLES BY PROMINENT MATHEMATICIANS IN A VARIETY OF AREAS OF THE FIELD, NAMELY NUMBER THEORY, ANALYSIS, AND GEOMETRY, REPRESENTING LANG'S OWN BREADTH OF INTEREST AND IMPACT. A SPECIAL INTRODUCTION BY JOHN TATE INCLUDES A BRIEF AND FASCINATING ACCOUNT OF THE SERGE LANG'S LIFE. THIS VOLUME'S GROUP OF 6 EDITORS ARE ALSO HIGHLY PROMINENT MATHEMATICIANS AND WERE CLOSE TO SERGE LANG, BOTH ACADEMICALLY AND PERSONALLY. THE VOLUME IS SUITABLE

TO RESEARCH MATHEMATICIANS IN THE AREAS OF NUMBER THEORY, ANALYSIS, AND GEOMETRY.

ALGEBRA - SERGE LANG 1978

A COURSE IN ARITHMETIC - J-P. SERRE 2012-12-06

THIS BOOK IS DIVIDED INTO TWO PARTS. THE FIRST ONE IS PURELY ALGEBRAIC. ITS OBJECTIVE IS THE CLASSIFICATION OF QUADRATIC FORMS OVER THE FIELD OF RATIONAL NUMBERS (HASSE-MINKOWSKI THEOREM). IT IS ACHIEVED IN CHAPTER IV. THE FIRST THREE CHAPTERS CONTAIN SOME PRELIMINARIES: QUADRATIC RECIPROCITY LAW, P-ADIC FIELDS, HILBERT SYMBOLS. CHAPTER V APPLIES THE PRECEDING RESULTS TO INTEGRAL QUADRATIC FORMS OF DISCRIMINANT ± 1 . THESE FORMS OCCUR IN VARIOUS QUESTIONS: MODULAR FUNCTIONS, DIFFERENTIAL TOPOLOGY, FINITE GROUPS. THE SECOND PART (CHAPTERS VI AND VII) USES "ANALYTIC" METHODS (HOLOMORPHIC FUNCTIONS). CHAPTER VI GIVES THE PROOF OF THE "THEOREM ON ARITHMETIC PROGRESSIONS" DUE TO DIRICHLET; THIS THEOREM IS USED AT A CRITICAL POINT IN THE FIRST PART (CHAPTER III, NO. 2.2). CHAPTER VII DEALS WITH MODULAR FORMS, AND IN PARTICULAR, WITH THETA FUNCTIONS. SOME OF THE QUADRATIC FORMS OF CHAPTER V REAPPEAR HERE. THE TWO PARTS CORRESPOND TO LECTURES GIVEN IN 1962 AND 1964 TO SECOND YEAR STUDENTS AT THE ÉCOLE NORMALE SUPÉRIEURE. A REDACTION OF THESE LECTURES IN THE FORM OF DUPLICATED NOTES, WAS MADE BY J.-J. SANSUC (CHAPTERS I-IV) AND J.-P. RAMIS AND G. RUGET (CHAPTERS VI-VII). THEY WERE VERY USEFUL TO ME; I EXTEND HERE MY GRATITUDE TO THEIR AUTHORS.

BASIC COMPLEX ANALYSIS - JERROLD E. MARSDEN 1999

BASIC COMPLEX ANALYSIS SKILLFULLY COMBINES A CLEAR EXPOSITION OF CORE THEORY WITH A RICH VARIETY OF APPLICATIONS. DESIGNED FOR UNDERGRADUATES IN MATHEMATICS, THE PHYSICAL SCIENCES, AND ENGINEERING WHO HAVE COMPLETED TWO YEARS OF CALCULUS AND ARE TAKING COMPLEX ANALYSIS FOR THE FIRST TIME..

ALGEBRA 2 - RAMJI LAL 2017-05-03

THIS IS THE SECOND IN A SERIES OF THREE VOLUMES DEALING WITH IMPORTANT TOPICS IN ALGEBRA. VOLUME 2 IS AN INTRODUCTION TO LINEAR ALGEBRA (INCLUDING LINEAR ALGEBRA OVER RINGS), GALOIS THEORY, REPRESENTATION THEORY, AND THE THEORY OF GROUP EXTENSIONS. THE SECTION ON LINEAR ALGEBRA (CHAPTERS 1-5) DOES NOT REQUIRE ANY BACKGROUND MATERIAL FROM ALGEBRA 1, EXCEPT AN UNDERSTANDING OF SET THEORY. LINEAR ALGEBRA IS THE MOST APPLICABLE BRANCH OF MATHEMATICS, AND IT IS ESSENTIAL FOR STUDENTS OF SCIENCE AND ENGINEERING AS SUCH, THE TEXT CAN BE USED FOR ONE-SEMESTER COURSES FOR THESE STUDENTS. THE REMAINING PART OF THE VOLUME DISCUSSES JORDAN AND RATIONAL FORMS, GENERAL LINEAR ALGEBRA (LINEAR ALGEBRA OVER RINGS), GALOIS THEORY, REPRESENTATION THEORY (LINEAR ALGEBRA OVER GROUP ALGEBRAS), AND THE THEORY OF EXTENSION OF GROUPS FOLLOW LINEAR ALGEBRA, AND IS SUITABLE AS A TEXT FOR THE SECOND AND THIRD YEAR STUDENTS SPECIALIZING IN MATHEMATICS.

ELLIPTIC FUNCTIONS - SERGE LANG 2012-12-06

ELLIPTIC FUNCTIONS PARAMETRIZE ELLIPTIC CURVES, AND THE INTERMINGLING OF THE ANALYTIC AND ALGEBRAIC-ARITHMETIC

THEORY HAS BEEN AT THE CENTER OF MATHEMATICS SINCE THE EARLY PART OF THE NINETEENTH CENTURY. THE BOOK IS DIVIDED INTO FOUR PARTS. IN THE FIRST, LANG PRESENTS THE GENERAL ANALYTIC THEORY STARTING FROM SCRATCH. MOST OF THIS CAN BE READ BY A STUDENT WITH A BASIC KNOWLEDGE OF COMPLEX ANALYSIS. THE NEXT PART TREATS COMPLEX MULTIPLICATION, INCLUDING A DISCUSSION OF DEURING'S THEORY OF L-ADIC AND P-ADIC REPRESENTATIONS, AND ELLIPTIC CURVES WITH SINGULAR INVARIANTS. PART THREE COVERS CURVES WITH NON-INTEGRAL INVARIANTS, AND APPLIES THE TATE PARAMETRIZATION TO GIVE SERRE'S RESULTS ON DIVISION POINTS. THE LAST PART COVERS THETA FUNCTIONS AND THE KRONECKER LIMIT FORMULA. ALSO INCLUDED IS AN APPENDIX BY TATE ON ALGEBRAIC FORMULAS IN ARBITRARY CHARACTERISTIC.

ALL THE MATHEMATICS YOU MISSED - THOMAS A. GARRITY 2004

RIEMANN-ROCH ALGEBRA - WILLIAM FULTON 2013-03-14

IN VARIOUS CONTEXTS OF TOPOLOGY, ALGEBRAIC GEOMETRY, AND ALGEBRA (E.G. GROUP REPRESENTATIONS), ONE MEETS THE FOLLOWING SITUATION. ONE HAS TWO CONTRAVARIANT FUNCTORS K AND A FROM A CERTAIN CATEGORY TO THE CATEGORY OF RINGS, AND A NATURAL TRANSFORMATION $p: K \rightarrow A$ OF CONTRAVARIANT FUNCTORS. THE CHERN CHARACTER BEING THE CENTRAL EXAMPLE, WE CALL THE HOMOMORPHISMS $p_X: K(X) \rightarrow A(X)$ CHARACTERS. GIVEN $f: X \rightarrow Y$, WE DENOTE THE PULL-BACK HOMOMORPHISMS BY f^* AND $f_A: A(Y) \rightarrow A(X)$. AS FUNCTORS TO ABELIAN GROUPS, K AND A MAY ALSO BE COVARIANT, WITH PUSH-FORWARD HOMOMORPHISMS AND $f_A: A(X) \rightarrow A(Y)$. USUALLY THESE MAPS DO NOT COMMUTE WITH THE CHARACTER, BUT THERE IS AN ELEMENT $r \in A(X)$ SUCH THAT THE FOLLOWING DIAGRAM IS COMMUTATIVE:

$$\begin{array}{ccc} K(X) & \xrightarrow{p_X} & A(X) \\ f^* \downarrow & & \downarrow f_A \\ K(Y) & \xrightarrow{p_Y} & A(Y) \end{array}$$

THE MAP IN THE TOP LINE IS p_X MULTIPLIED BY r . WHEN SUCH COMMUTATIVITY HOLDS, WE SAY THAT RIEMANN-ROCH HOLDS FOR f . THIS TYPE OF FORMULATION WAS FIRST GIVEN BY GROTHENDIECK, EXTENDING THE WORK OF HIRZEBRUCH TO SUCH A RELATIVE, FUNCTORIAL SETTING. SINCE THEN SEVERAL OTHER THEOREMS OF THIS RIEMANN-ROCH TYPE HAVE APPEARED. UNDERLYING MOST OF

THESE THERE IS A BASIC STRUCTURE HAVING TO DO ONLY WITH ELEMENTARY ALGEBRA, INDEPENDENT OF THE GEOMETRY. ONE PURPOSE OF THIS MONOGRAPH IS TO DESCRIBE THIS ALGEBRA INDEPENDENTLY OF ANY CONTEXT, SO THAT IT CAN SERVE AXIOMATICALLY AS THE NEED ARISES.

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

REAL AND FUNCTIONAL ANALYSIS - SERGE LANG

2012-12-06

THIS BOOK IS MEANT AS A TEXT FOR A FIRST-YEAR GRADUATE COURSE IN ANALYSIS. IN A SENSE, IT COVERS THE SAME TOPICS AS ELEMENTARY CALCULUS BUT TREATS THEM IN A MANNER SUITABLE FOR PEOPLE WHO WILL BE USING IT IN FURTHER MATHEMATICAL INVESTIGATIONS. THE ORGANIZATION AVOIDS LONG CHAINS OF LOGICAL INTERDEPENDENCE, SO THAT CHAPTERS ARE MOSTLY INDEPENDENT. THIS ALLOWS A COURSE TO OMIT MATERIAL FROM SOME CHAPTERS WITHOUT COMPROMISING THE EXPOSITION OF MATERIAL FROM LATER CHAPTERS.

NUMBER THEORY - 1986-05-05

THIS BOOK IS WRITTEN FOR THE STUDENT IN MATHEMATICS. ITS GOAL IS TO GIVE A VIEW OF THE THEORY OF NUMBERS, OF THE PROBLEMS WITH WHICH THIS THEORY DEALS, AND OF THE METHODS THAT ARE USED. WE HAVE AVOIDED THAT STYLE WHICH GIVES A SYSTEMATIC DEVELOPMENT OF THE APPARATUS AND HAVE USED INSTEAD A FREER STYLE, IN WHICH THE PROBLEMS AND THE METHODS OF SOLUTION ARE CLOSELY INTERWOVEN. WE START FROM CONCRETE PROBLEMS IN NUMBER THEORY. GENERAL THEORIES ARISE AS TOOLS FOR SOLVING THESE PROBLEMS. AS A RULE, THESE THEORIES ARE DEVELOPED SUFFICIENTLY FAR SO THAT THE READER CAN SEE FOR HIMSELF THEIR STRENGTH AND BEAUTY, AND SO THAT HE LEARNS TO APPLY THEM. MOST OF THE QUESTIONS THAT ARE EXAMINED IN THIS BOOK ARE CONNECTED WITH THE THEORY OF DIOPHANTINE EQUATIONS - THAT IS, WITH THE THEORY OF THE SOLUTIONS IN INTEGERS OF EQUATIONS IN SEVERAL VARIABLES. HOWEVER, WE ALSO CONSIDER QUESTIONS OF OTHER TYPES; FOR EXAMPLE, WE DERIVE THE THEOREM OF DIRICHLET ON PRIME NUMBERS IN ARITHMETIC PROGRESSIONS AND INVESTIGATE THE GROWTH OF THE NUMBER OF SOLUTIONS OF CONGRUENCES.