

Circle Christian School Summer School Skills Checklist - MATHEMATICS & COMPUTER ED.

BUSINESS MATHEMATICS I

Bk. Publisher _____

Ch. _____ / **Pgs.** _____

- Wholesale pricing
- Retail pricing
- Banking services
- Payroll
- Marketing
- Investments
- Taxes
- Bookkeeping
- Accounting
- Statistics
- Business records
- Financial reports
- Insurance
- Other _____

CONSUMER MATHEMATICS

Bk. Publisher _____

Ch. _____ / **Pgs.** _____

- Review of basic operations on rational numbers
- Purchase of goods and services
- Cost of credit
- Installment buying
- Borrowing money
- Checking accounts
- Loans
- Stocks
- Bonds
- Money market
- Real estate investments
- Wages
- Hourly wage rates
- Deduction on earnings
- Benefits
- Income tax
- Social security tax
- Purchase of automobile
- Automobile maintenance
- Apartment rental
- Purchase of a house
- House maintenance
- Retirement
- Retirement income
- Insurances
- Other _____

EXPLORATIONS IN MATH I [General]

Bk. Publisher _____

Ch. _____ / **Pgs.** _____

- “Real” world problems using:
- Number and operation sense
 - Estimation
 - Mental mathematics
 - Algebraic relationships
 - Geometric relationships
 - Measurement
 - Spatial relationships
 - Statistics and probability
 - Functions
 - Ratio and proportion
 - Other _____

APPLIED MATHEMATICS I

Bk. Publisher _____

Ch. _____ / **Pgs.** _____

- Work-related problems:
- Whole numbers / Basic operations
 - Fractions / Decimals / Percents
 - Square Roots
 - Powers
 - Scientific notation
 - Standard measure
 - Metric measure
 - Graphs
 - Geometric concepts in 1- 2 - 3 dimensions
 - Collection of data
 - Organization of data
 - Representation of data
 - Interpretation of data
 - Prediction of outcomes
 - Problem-solving techniques
 - Problem-solving strategies
 - Other _____

APPLIED MATHEMATICS II

Bk. Publisher _____

Ch. _____ / **Pgs.** _____

- Use of formulas
- Linear / nonlinear equations
- Graphs to solve problems
- Simple statistical methods / probability
- Special right triangle relationships
- Trigonometric ratios
- Multiplying / factoring polynomials
- Solving equations
- Graphing equations
- Functions / relations / their graphs
- Systems of linear equations in two variables
- Application of properties of lines
- Application of properties of angles
- Application of properties of triangles
- Other _____

PRE-ALGEBRA

Bk. Publisher _____

Ch. _____ / **Pgs.** _____

- Equations
- Inequalities
- Geometry / Algebra relationship
- Graphing
- Number theory
- Polynomials
- Probability
- Problem-solving strategies
- Ratio
- Proportion
- Percent
- Real number operations
- Statistics
- Use of calculators
- Use of computers
- Other _____

ALGEBRA I

Bk. Publisher _____

Ch. _____ / **Pgs.** _____

- Variables
- Structure of real number system
- Properties of real number system
- 1st degree equations
- 1st degree inequalities
- Relations and functions
- Graphs
- System of linear equations
- System of inequalities
- Integral exponents
- Polynomials
- Factoring
- Algebraic expressions
- Rational numbers
- Irrational numbers
- Radical expressions
- Quadratic equations
- Other _____

ALGEBRA II

Bk. Publisher _____

Ch. _____ / **Pgs.** _____

- Structure of real number system
- Structure of complex number system
- Equations
- Inequalities
- Relations and functions
- Graphs
- System of equations
- System of inequalities
- Polynomial functions
- Rational algebraic expressions
- Irrational algebraic expressions
- Rational exponents
- Logarithmic functions
- Exponential functions
- Permutations

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- Combinations
- Probability
- Arithmetic and geometric sequences
- Arithmetic and geometric series
- Conic sections
- Other _____

LIBERAL ARTS MATH

- Bk. Publisher** _____
Ch. _____ / **Pgs.** _____
- Exponents / Radicals
 - Algebraic expressions
 - Algebraic polynomials
 - Equations / Inequalities
 - Coordinate geometry
 - Functions / Relations / Graphs
 - Systems of linear equations
 - Systems of linear inequalities
 - Properties of 2D / 3D properties
 - Geometric relationships
 - Data analysis / Probability
 - Other _____

GEOMETRY

- Bk. Publisher** _____
Ch. _____ / **Pgs.** _____
- Logic
 - Deductive arguments
 - Undefined terms
 - Similarity
 - Congruence
 - Parallelism
 - Perpendicularity
 - Segments
 - Angles
 - 2-Dimensional figures
 - 3-Dimensional figures
 - Perimeter
 - Area
 - Volume
 - Constructions
 - Coordinate geometry
 - Transformations
 - Other _____

ANALYTIC GEOMETRY

- Bk. Publisher** _____
Ch. _____ / **Pgs.** _____
- Linear equations
 - Sketching graphs and curves
 - Vectors
 - Conic sections including transformation and rotation of axes
 - Polar form of equations and graphs
 - Parametric equations
 - Other _____

TRIGONOMETRY

- Bk. Publisher** _____
Ch. _____ / **Pgs.** _____
- Angles
 - Circular functions and inverses
 - Trig functions and inverses
 - Trig identities
 - Graphs of trig functions and inverses
 - Trig equations
 - Solutions of right triangles
 - Solutions of oblique triangles
 - Trig form of complex numbers
 - Other _____

PRE-CALCULUS

- Bk. Publisher** _____
Ch. _____ / **Pgs.** _____
- Polynomial functions
 - Rational functions
 - Exponential functions
 - Inverse functions
 - Logarithmic functions
 - Circular functions
 - Sequences
 - Series
 - Vectors
 - Conic sections
 - Polar coordinate systems
 - Symbolic logic
 - Mathematical inductions
 - Matrix algebra
 - Other _____

CALCULUS

- Bk. Publisher** _____
Ch. _____ / **Pgs.** _____
- Elementary functions
 - Limits and continuity
 - Derivatives
 - Differentiation
 - Application of derivatives
 - Antiderivatives
 - Definite integrals
 - Applications of integrals
 - Other _____

INTRODUCTION TO COMPUTER

- Bk. Publisher** _____
Ch. _____ / **Pgs.** _____
- Components of computer
 - Terminology
 - Capabilities of computer
 - Limitations of computer
 - Uses of computer
 - Problem solving with computer
 - Software programs
 - Role / Implications in society
 - Careers in computer industry / business
 - Other _____

COMPUTER APPLICATIONS I

- Bk. Publisher** _____
Ch. _____ / **Pgs.** _____
- Simple programming
 - Database management
 - Spreadsheets
 - Word processing
 - Desktop publishing
 - Graphics
 - Integrated packages
 - Authoring language
 - Telecommunications
 - Other _____

COMPUTER APPLICATIONS II

- Bk. Publisher** _____
Ch. _____ / **Pgs.** _____
- Advanced applications:
- Word processing
 - Spreadsheets
 - Database management
 - Integrated software packages
 - Problem solving with applications
 - Other _____