

Pre-Calculus

- I. Graphs
 - A. Rectangular Coordinates; Graphing Utilities
 - B. Introduction to Graphing Equations
 - C. Symmetry; Graphing Key Equations
 - D. Solving Equations
 - E. Solving Inequalities
 - F. Lines
- II. Functions And Their Graphs
 - A. Functions
 - B. Linear Functions and Models
 - C. Properties of Functions
 - D. Library of Functions; Piecewise-Defined Functions
 - E. Graphing Techniques: Transformations
 - F. Operations on Functions; Composite Functions
 - G. Mathematical Models: Constructing Functions
- III. Polynomial And Rational Functions
 - A. Quadratic Functions and Models
 - B. Power Functions and Models
 - C. Polynomial Functions and Models
 - D. Rational Functions I
 - E. Rational Functions II: Analyzing Graphs
 - F. Polynomial and Rational Inequalities
 - G. The Real Zeros of a Polynomial Function
 - H. Complex Zeros; Fundamental Theorem of Algebra
- IV. Exponential And Logarithmic Functions
 - A. One-to-One Functions; Inverse Functions
 - B. Exponential Functions
 - C. Logarithmic Functions
 - D. Properties of Logarithms
 - E. Logarithmic and Exponential Equations
 - F. Compound Interest
 - G. Growth and Decay
 - H. Exponential, Logarithmic, and Logistic Models
- V. Systems of Equations and Inequalities
 - A. Systems of Linear Equations: Two Equations Containing Two Variables
 - B. Systems of Linear Equations: Three Equations Containing Three Variables
 - C. Systems of Linear Equations: Matrices
 - D. Systems of Linear Equations: Determinants
 - E. Matrix Algebra

- F. Partial Fraction Decomposition
- G. Systems of Nonlinear Equations
- H. Systems of Inequalities
- I. Linear Programming