Math 91 Refresher Course Content

A symbol indicates that an animation is available for one or more exercises in this section.
A symbol indicates that a video is available for one or more exercises in this section.

- 10. Equations, Inequalities, and Applications (partially included)
  - **Section 10.1: The Addition Property of Equality**
  - **Section 10.2: The Multiplication Property of Equality**
  - **Section 10.3: More on Solving Linear Equations**
  - **Section 10.4: An Introduction to Applications of Linear Equations**
  - **Section 10.5: Formulas and Applications from Geometry**
  - **Section 10.6: Solving Linear Inequalities**
  - **Section 10.7: Compound Inequalities**
  - **Section 10.8: Absolute Value Equations**
  - **Section 10.9: Absolute Value Inequalities**
- 11. Graphs of Equations, Functions, and Inequalities in Two Variables (partially included)
  - **Section 11.1: Reading Graphs: Linear Equations in Two Variables**
  - **Section 11.2: Graphing Linear Equations in Two Variables**
  - **Section 11.3: Slope of a Line**
  - **Section 11.4: Equations of Lines**
  - **Section 11.5: Graphing Linear Inequalities in Two Variables**
  - **Section 11.6: Introduction to Functions**
  - **Section 11.7: Graphing Linear Functions** (partially included)
  - **Section 11.8: Piecewise-Defined Functions; Shifting & Reflecting Graphs** (partially included)
  - **Section 11.9: Distance and Midpoint Formulas; Circles**
  - **Section 11.10: More on Functions and Their Graphs**
- 15. Systems of Linear Equations and Inequalities (partially included)
  - **Section 15.1: Solving Systems of Linear Equations by Graphing**
  - **Section 15.2: Solving Systems of Linear Equations by Substitution**
  - **Section 15.3: Solving Systems of Linear Equations by Elimination**
  - **Section 15.4: Applications of Linear Systems**
  - **Section 15.5: Solving Systems of Linear Inequalities**
  - **Section 15.6: Solving Systems of Linear Equations in Three Variables**
  - **Section 15.7: Solving Systems of Equations by Matrices**
  - **Section 15.8: Solving Systems of Equations Using Determinants**

- 16. Roots, Radicals, and Complex Numbers
  - Section 16.1: Evaluating Roots
  - Section 16.2: Multiplying, Dividing, and Simplifying Radicals
  - Section 16.3: Adding and Subtracting Radicals
  - Section 16.4: Rationalizing the Denominator
  - Section 16.5: More Simplifying and Operations with Radicals
  - Section 16.6: Solving Equations with Radicals
  - Section 16.7: Rational Exponents
  - Section 16.8: Rationalizing Denominators and Numerators of Radical Expressions
  - Section 16.9: Radical Equations and Problem Solving
  - Section 16.10: Complex Numbers
- 17. Quadratic Equations and Functions
  - Section 17.1: Solving Equations by the Square Root Property
  - Section 17.2: Solving Quadratic Equations by Completing the Square
  - Section 17.3: Solving Quadratic Equations by the Quadratic Formula
  - Section 17.4: Graphing Quadratic Equations and Inequalities
  - Section 17.5: Introduction to Functions
  - Section 17.6: Solving Equations by Using Quadratic Methods
  - Section 17.7: Nonlinear Inequalities in One Variable
  - Section 17.8: Quadratic Functions and Their Graphs
  - Section 17.9: Further Graphing of Quadratic Functions
- 18. Exponential and Logarithmic Functions
  - Section 18.1: The Algebra of Functions; Composite Functions
  - Section 18.2: Inverse Functions
  - Section 18.3: Exponential Functions
  - Section 18.4: Logarithmic Functions
  - Section 18.5: Properties of Logarithms
  - Section 18.6: Common Logarithms, Natural Logarithms, and Change of Base
  - Section 18.7: Exponential and Logarithmic Equations and Applications
- 19. Conic Sections
  - Section 19.1: The Parabola and the Circle
  - Section 19.2: The Ellipse and the Hyperbola
  - Section 19.3: Solving Nonlinear Systems of Equations
  - Section 19.4: Nonlinear Inequalities and Systems of Inequalities

- 20. Sequences, Series, and the Binomial Theorem; Probability (partially included)
  - Section 20.1: Sequences
  - Section 20.2: Arithmetic and Geometric Sequences
  - Section 20.3: Series
  - Section 20.4: Partial Sums of Arithmetic and Geometric Sequences
  - Section 20.5: The Binomial Theorem
  - Section 20.6: Mathematical Induction
  - Section 20.7: Counting Principles, Permutations, and Combinations
  - Section 20.8: Probability