Pre-Calc Level 1 Topics

Rational Expressions

      Understand domain restrictions, operations with rational expressions (simplify, multiply, divide, add, and subtract), simplify complex rational expressions, solve rational equations

Rational Functions and Their Graphs

      find domain values, various asymptotes, holes, and transformations

Functions

      Exponential Functions
      Logarithmic Functions
      Properties of Logs
      Exponential & Logarithmic Equations

Trigonometry

      Angles and Radian Measures
      Trig Functions: The Unit Circle
      Right Triangle Trig
      Trig Functions of Any Angle
      Graphs of Trig Functions
      Inverse Trig Functions
      Trig Equations
      Sum and Difference Formulas: know and use all formulas
      Double-Angle Formulas: know and use all formulas
      The Law of Sines: know and use the formula to solve oblique triangles, including ambiguous cases, find areas, and solve applied problems
      The Law of Cosines: know and use the formula to solve oblique triangles, find areas (Heron's), and solve applied problems

Systems of Nonlinear Equations in Two Variables

Conics

Understand the graph and standard form of the equation

Know how to write the equation of a conic section given particular characteristics

Circles

The Ellipse

The Hyperbola

The Parabola

Finding Limits using Tables and Graphs

Understand limit notation, find limits from tables and graphs

Finding Limits Using Properties of Limits

Find limits using algebraic methods (substitution, factoring, and rationalizing a numerator)