

# MTH 1000 – Precalculus

## Study Topics

**Textbook:** Precalculus, 11th ed., by Sullivan

- 1.1: The Distance and Midpoint
- 1.2: Graphs of Equations in Two Variables
- 1.3: Lines
- 1.4: Circles
- 2.1: Functions
- 2.2: The Graph of a Function
- 2.3: Properties of Functions
- 2.4: Library of Functions
- 2.5: Graphing Techniques
- 3.3: Quadratic Functions
- 4.1: Polynomial Functions and Models

### Test 1

- A.3/4 Polynomial Division
- 4.2: Properties of Rational Functions
- 4.3: The Graph of a Rational Function
- 4.4: Polynomial and Rational Inequalities
- 11.5 Partial Fractions
- 5.1: Composite Functions
- 5.2: One-to-one Functions, Inverse Functions
- 5.3: Exponential Functions
- 5.4: Logarithmic Functions
- 5.5: Properties of Logarithms
- 5.6: Logarithmic and Exponential Equation

### Test 2

- 6.1: Angles and Their Measure
- 6.2: Trigonometric Functions
- 6.3: Properties of Trigonometric Functions
- 6.4: Graphs of the Sine and Cosine Functions
- 6.5: Graphs of the Tan, Cot, Sec and Csc
- 6.6: Phase Shift; Sinusoidal Curve Fitting
- 7.1: Inverse Sin, Cos and Tan Functions
- 7.2: Inverse Trigonometric Functions (continued)
- 7.3: Trigonometric Equations

### Test 3

- 7.4: Trigonometric Identities
- 7.5: Sum and Difference Formulas
- 7.6: Double-angle and Half-angle Formulas

### FINAL EXAM