

# MTH 1320 - Precalculus

Text: Precalculus, OpenStax College, <https://openstax.org/details/books/prec calculus>

## Chapter 1: FUNCTIONS

- 1.1 Functions and Function Notation
- 1.2 Domain and Range
- 1.3 Rates of Change and Behavior of Graphs
- 1.4 Composition of Functions
- 1.5 Transformation of Functions
- 1.7 Inverse Functions

## Chapter 2: LINEAR FUNCTIONS

- 2.1 Linear Functions
- 2.2 Graphs of Linear Functions
- 2.3 Modeling with Linear Functions

## Chapter 3: POLYNOMIAL AND RATIONAL FUNCTIONS

- 3.2 Quadratic Functions
- 3.3 Power Functions and Polynomial Functions
- 3.4 Graphs of Polynomial Functions
- 3.5 Dividing Polynomials
- 3.7 Rational Functions

## Chapter 4: EXPONENTIAL AND LOGARITHMIC FUNCTIONS

- 4.1 Exponential Functions
- 4.2 Graphs of Exponential Functions
- 4.3 Logarithmic Functions
- 4.4 Graphs of Logarithmic Functions
- 4.5 Logarithmic Properties
- 4.6 Exponential and Logarithmic Equations
- 4.7 Exponential and Logarithmic Models

## Chapter 5: TRIGONOMETRIC FUNCTIONS

- 5.1 Angles
- 5.2 Unit Circle: Sine and Cosine Functions
- 5.3 The Other Trigonometric Functions
- 5.4 Right Triangle Trigonometry

## Chapter 6: PERIODIC FUNCTIONS

- 6.1 Graphs of the Sine and Cosine Functions
- 6.2 Graphs of the Other Trigonometric Functions
- 6.3 Inverse Trigonometric Functions

## Chapter 7: TRIGONOMETRIC IDENTITIES AND EQUATIONS

- 7.2 Sum and Difference Identities
- 7.3 Double-Angle, Half-Angle, and Reduction Formulas
- 7.5 Solving Trigonometric Equations