



Presented by the Dyscalculia Training & Research Institute

Pre-Calculus

Pacing Guide

Use this pacing guide to help you keep track of your work.

<u>Unit</u>	<u>Topic</u>	<u>Completed</u>
Unit 1	<u>Week 1: Operations Review</u> Table of Values Solutions to a Function Midpoint Formula Distance Formula Pythagorean Theorem	
	<u>Week 2, Mixtures and Combined Work</u> Solving a System with Substitution Review Mixture Problems Combined Work Unit 1, Week 2 Test	
	<u>Week 3, Graphing Review</u> Cartesian Plane Key Features of Graphs Matching Equations to Graphs Writing Equations from Graphs	
	<u>Week 4, Graphs of Absolute Value and Radical Functions</u> Absolute Value Graphs Graphing Absolute Value from a Table of Values Radical Function Graphs Graph Radical Functions from a Table of Values	
	<u>Week 5, Transformations</u> Horizontal Transformations Vertical Transformations Reflections Stretches and Compressions Multiple Transformations	
	<u>Week 6, Functions</u> Inverse Functions Even and Odd Functions Composite Functions Modeling Composite Functions	
	<u>Week 7, Skills Review</u> Equation of a Circle Completing the Square Synthetic Division Polynomial Long Division Nonlinear Inequalities Unit 1, Week 7 Test	

Unit 2	<u>Week 1, Radical Functions</u> Radical Functions and Transformations Square Root of a Function Applications and Models Writing Equations from Quadratic Graphs Writing Equations from Radical Graphs	
	<u>Week 2, Polynomials Functions</u> Polynomial Functions of Higher Degrees End Behavior of Graphs The Remainder Theorem The Factor Theorem Descartes' Rule of Signs Unit 2, Week 2 Test	
	<u>Week 3, Cost and Revenue</u> Maximum and Minimum Points Maximizing Revenue Minimizing Cost Maximum and Minimum Area	
	<u>Week 4, Limits of Polynomial Functions</u> Bounds Zeros and Multiplicity Intermediate Value Theorem Average Rate of Change Applications Unit 2, Week 4 Test	
	<u>Week 5, Rational Functions</u> Identify Rational Function Graphs Domain of Rational Functions Writing Limits from a Rational Function Graph Transform Rational Function Graphs	
	<u>Week 6, Asymptotes</u> Identifying Asymptotes on a Graph Vertical Asymptotes of Rational Functions Horizontal Asymptotes of Rational Functions Inverse Variation Unit 2, Week 6 Test	
Unit 3	<u>Week 1, Exponential Functions</u> Exponential Functions Key Features of Exponential Functions Graphs Solving Exponential Equations Exponential Models Mixed Reviews	
	<u>Week 2, Logarithms</u> Writing in Log Form Writing in Exponential Form Properties of Logarithms Solving Logarithms Change of Base	
	<u>Week 3, Logarithmic Functions</u> Key Features of Logarithmic Graphs Matching Log Functions to Graphs Solving Logarithmic Equations Logarithmic Models Mixed Review	

	Semester One Review Semester One Test	
Unit 4	<u>Week 1, The Unit Circle</u> Radians and Degrees The Unit Circle Trig Ratios Equations and Trig Ratios	
	<u>Week 2, Trig Graphs and Functions</u> Graphing Sin Functions Graphing Cos Functions Graphing Tan Functions Inverse Trig Functions Applications and Models	
	<u>Week 3, Analytic Trigonometry</u> Law of Sines Law of Cosines Sum and Difference Identities Solving Trig Equations Applications and Models Unit 4, Week 3 Test	
Unit 5	<u>Week 1, Matrices</u> Matrices Read and Write Matrices Add and Subtract Matrices Multiply Matrices Mixed Operations with Matrices	
	<u>Week 2, Using a Matrix</u> Inverse of a Matrix Determinant of a Matrix Solving a System of Equations with Matrices Applications Unit 5 Test	
Unit 6	<u>Week 1, Sequences</u> Sequences Arithmetic Sequences Geometric Sequences Arithmetic Sequences and Partial Sums	
	<u>Week 2, Series</u> Series Arithmetic Series Geometric Series Sum of a Series Unit 6, Week 2 Test	
Unit 7	<u>Week 1, Permutations and Combinations</u> Fundamental Counting Principle and Factorials Permutations Combinations The Binomial Theorem	
Unit 8	<u>Week 1, Circles</u> Lines and Parabolas Review Graphing Lines and Parabolas Equation of a Circle Completing the Square Graphing a Circle	

	<u>Week 2, Ellipses</u> Ellipses Major and Minor Axis Equation of an Ellipse Graph of an Ellipse Ellipse Word Problems Unit 8, Week 2 Test	
	<u>Week 3, Hyperbolas</u> Hyperbolas Key Features of a Hyperbola Equation of a Hyperbola Graphing a Hyperbola Hyperbola Word Problems	
	<u>Week 4, Polar Equations</u> Polar Coordinates Graphs of Polar Equations Polar Equations of Conics Polar Equations in Nature Unit 8, Week 4 Test	
Unit 9	<u>Week 1, Vectors</u> Naming Vectors Vectors in the Coordinate Plane Vectors and Dot Products Applications Unit 9, Week 1 Test	
Unit 10	<u>Week 1, Limits</u> Limits Find a Limit with a Table Find the Limit of a Sum or Difference Find the Limit of a Product	
	<u>Week 2, Advanced Limits</u> Limits of Monomials and Polynomials Find the Limit of Algebraic Properties Continuous Functions Unit 10 Test	
Unit 11	<u>Week 1, Set Notation</u> Reading Set Notation Writing Set Notation Using Set Notation	
	<u>Week 2</u> Integral Notation Reading Integral Notation Area Under a Curve Semester Two Review Semester Two Exam	