



Trigonometry/Precalculus Review Course Content

















































NOTE: In addition to trigonometry, this refresher course contains content from both Precalculus and College Algebra, as these two courses generally have a great deal of overlap. In a course for credit, certain topics may be included or omitted at the discretion of a course's instructor. For example, while most of these courses cover matrices and determinants (Chapter 9), some will cover Cramer's Rule while others will not. While many of these courses cover conic sections (Chapter 10), some will cover rotation of axes while others will not.

All of these topics are available for you to practice in this online refresher course. If you are unsure about whether you need to practice a specific topic in preparation for a course, it is recommended that you contact the instructor who will be teaching that course (if known), or the current math department chair, regarding specific curriculum inquiries.

- 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.

	Learning Aids
<input checked="" type="checkbox"/>  0. Prerequisites: Fundamental Concepts of Algebra	 
<input checked="" type="checkbox"/>  Section 0.1: Algebraic Expressions and Real Numbers	
<input checked="" type="checkbox"/>  Section 0.2: Exponents and Scientific Notation	
<input checked="" type="checkbox"/>  Section 0.3: Radicals and Rational Exponents	
<input checked="" type="checkbox"/>  Section 0.4: Polynomials	
<input checked="" type="checkbox"/>  Section 0.5: Factoring Polynomials	
<input checked="" type="checkbox"/>  Section 0.6: Rational Expressions	 
<input checked="" type="checkbox"/>  1. Equations and Inequalities	 
<input checked="" type="checkbox"/>  Section 1.1: Graphs and Graphing Utilities	
<input checked="" type="checkbox"/>  Section 1.2: Linear Equations and Rational Equations	
<input checked="" type="checkbox"/>  Section 1.3: Models and Applications	
<input checked="" type="checkbox"/>  Section 1.4: Complex Numbers	
<input checked="" type="checkbox"/>  Section 1.5: Quadratic Equations	 
<input checked="" type="checkbox"/>  Section 1.6: Other Types of Equations	 
<input checked="" type="checkbox"/>  Section 1.7: Linear Inequalities and Absolute Value Inequalities	
<input checked="" type="checkbox"/>  2. Functions and Graphs	 
<input checked="" type="checkbox"/>  Section 2.1: Basics of Functions and Their Graphs	
<input checked="" type="checkbox"/>  Section 2.2: More on Functions and Their Graphs	
<input checked="" type="checkbox"/>  Section 2.3: Linear Functions and Slope	
<input checked="" type="checkbox"/>  Section 2.4: More on Slope	
<input checked="" type="checkbox"/>  Section 2.5: Transformations of Functions	 
<input checked="" type="checkbox"/>  Section 2.6: Combinations of Functions; Composite Functions	 
<input checked="" type="checkbox"/>  Section 2.7: Inverse Functions	 
<input checked="" type="checkbox"/>  Section 2.8: Distance and Midpoint Formulas; Circles	
<input checked="" type="checkbox"/>  3. Polynomial and Rational Functions	 

<input checked="" type="checkbox"/> <input type="checkbox"/> +	Section 3.1: Quadratic Functions	 
<input checked="" type="checkbox"/> <input type="checkbox"/> +	Section 3.2: Polynomial Functions and Their Graphs	
<input checked="" type="checkbox"/> <input type="checkbox"/> +	Section 3.3: Dividing Polynomials: Remainder and Factor Theorems	
<input checked="" type="checkbox"/> <input type="checkbox"/> +	Section 3.4: Zeros of Polynomial Functions	 
<input checked="" type="checkbox"/> <input type="checkbox"/> +	Section 3.5: Rational Functions and Their Graphs	
<input checked="" type="checkbox"/> <input type="checkbox"/> +	Section 3.6: Polynomial and Rational Inequalities	
<input checked="" type="checkbox"/> <input type="checkbox"/> +	Section 3.7: Modeling Using Variation	
<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> -	4. Exponential and Logarithmic Functions	 
<input checked="" type="checkbox"/> <input type="checkbox"/> +	Section 4.1: Exponential Functions	 
<input checked="" type="checkbox"/> <input type="checkbox"/> +	Section 4.2: Logarithmic Functions	
<input checked="" type="checkbox"/> <input type="checkbox"/> +	Section 4.3: Properties of Logarithms	 
<input checked="" type="checkbox"/> <input type="checkbox"/> +	Section 4.4: Exponential and Logarithmic Equations	 
<input checked="" type="checkbox"/> <input type="checkbox"/> +	Section 4.5: Exponential Growth and Decay; Modeling Data	
<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> -	5. Trigonometric Functions	 
<input checked="" type="checkbox"/> <input type="checkbox"/> +	Section 5.1: Angles and Radian Measure	 
<input checked="" type="checkbox"/> <input type="checkbox"/> +	Section 5.2: Right Triangle Trigonometry	 
<input checked="" type="checkbox"/> <input type="checkbox"/> +	Section 5.3: Trigonometric Functions of Any Angle	 
<input checked="" type="checkbox"/> <input type="checkbox"/> +	Section 5.4: Trigonometric Functions of Real Numbers; Periodic Functions	 
<input checked="" type="checkbox"/> <input type="checkbox"/> +	Section 5.5: Graphs of Sine and Cosine Functions	
<input checked="" type="checkbox"/> <input type="checkbox"/> +	Section 5.6: Graphs of Other Trigonometric Functions	
<input checked="" type="checkbox"/> <input type="checkbox"/> +	Section 5.7: Inverse Trigonometric Functions	
<input checked="" type="checkbox"/> <input type="checkbox"/> +	Section 5.8: Applications of Trigonometric Functions	
<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> -	6. Analytic Trigonometry	 
<input checked="" type="checkbox"/> <input type="checkbox"/> +	Section 6.1: Verifying Trigonometric Identities	 
<input checked="" type="checkbox"/> <input type="checkbox"/> +	Section 6.2: Sum and Difference Formulas	
<input checked="" type="checkbox"/> <input type="checkbox"/> +	Section 6.3: Double-Angle, Power-Reducing, and Half-Angle Formulas	
<input checked="" type="checkbox"/> <input type="checkbox"/> +	Section 6.4: Product-to-Sum and Sum-to-Product Formulas	
<input checked="" type="checkbox"/> <input type="checkbox"/> +	Section 6.5: Trigonometric Equations	 
<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> -	7. Additional Topics in Trigonometry	 
<input checked="" type="checkbox"/> <input type="checkbox"/> +	Section 7.1: The Law of Sines	 
<input checked="" type="checkbox"/> <input type="checkbox"/> +	Section 7.2: The Law of Cosines	
<input checked="" type="checkbox"/> <input type="checkbox"/> +	Section 7.3: Polar Coordinates	 
<input checked="" type="checkbox"/> <input type="checkbox"/> +	Section 7.4: Graphs of Polar Equations	 
<input checked="" type="checkbox"/> <input type="checkbox"/> +	Section 7.5: Complex Numbers in Polar Form; DeMoivre's Theorem	
<input checked="" type="checkbox"/> <input type="checkbox"/> +	Section 7.6: Vectors	
<input checked="" type="checkbox"/> <input type="checkbox"/> +	Section 7.7: The Dot Product	

<input checked="" type="checkbox"/> 	8. Systems of Equations and Inequalities	 
<input checked="" type="checkbox"/> 	Section 8.1: Systems of Linear Equations in Two Variables	
<input checked="" type="checkbox"/> 	Section 8.2: Systems of Linear Equations in Three Variables	
<input checked="" type="checkbox"/> 	Section 8.3: Partial Fractions	
<input checked="" type="checkbox"/> 	Section 8.4: Systems of Nonlinear Equations in Two Variables	 
<input checked="" type="checkbox"/> 	Section 8.5: Systems of Inequalities	
<input checked="" type="checkbox"/> 	Section 8.6: Linear Programming	
<input checked="" type="checkbox"/> 	9. Matrices and Determinants	 
<input checked="" type="checkbox"/> 	Section 9.1: Matrix Solutions to Linear Systems	 
<input checked="" type="checkbox"/> 	Section 9.2: Inconsistent and Dependent Systems and Their Applications	 
<input checked="" type="checkbox"/> 	Section 9.3: Matrix Operations and Their Applications	 
<input checked="" type="checkbox"/> 	Section 9.4: Multiplicative Inverses of Matrices and Matrix Equations	 
<input checked="" type="checkbox"/> 	Section 9.5: Determinants and Cramer's Rule	
<input checked="" type="checkbox"/> 	10. Conic Sections and Analytic Geometry	 
<input checked="" type="checkbox"/> 	Section 10.1: The Ellipse	
<input checked="" type="checkbox"/> 	Section 10.2: The Hyperbola	
<input checked="" type="checkbox"/> 	Section 10.3: The Parabola	
<input checked="" type="checkbox"/> 	Section 10.4: Rotation of Axes	 
<input checked="" type="checkbox"/> 	Section 10.5: Parametric Equations	
<input checked="" type="checkbox"/> 	Section 10.6: Conic Sections in Polar Coordinates	