Precalculus | South Carolina College- and Career-Ready Mathematics Standards Correlation to *Eureka Math*®

About *Eureka Math*

Created by Great Minds®, a mission-driven Public Benefit Corporation, *Eureka Math*® helps teachers deliver unparalleled math instruction that provides students with a deep understanding and fluency in math. Crafted by teachers and math scholars, the curriculum carefully sequences the mathematical progressions to maximize coherence from Prekindergarten through Precalculus—a principle tested and proven to be essential in students' mastery of math.

Teachers and students using *Eureka Math* find the trademark "Aha!" moments in *Eureka Math* to be a source of joy and inspiration, lesson after lesson, year after year.

Aligned

Great Minds offers detailed analyses that demonstrate how each grade of *Eureka Math* aligns with specific state standards. Access these free alignment studies at greatminds.org/state-studies.

Data

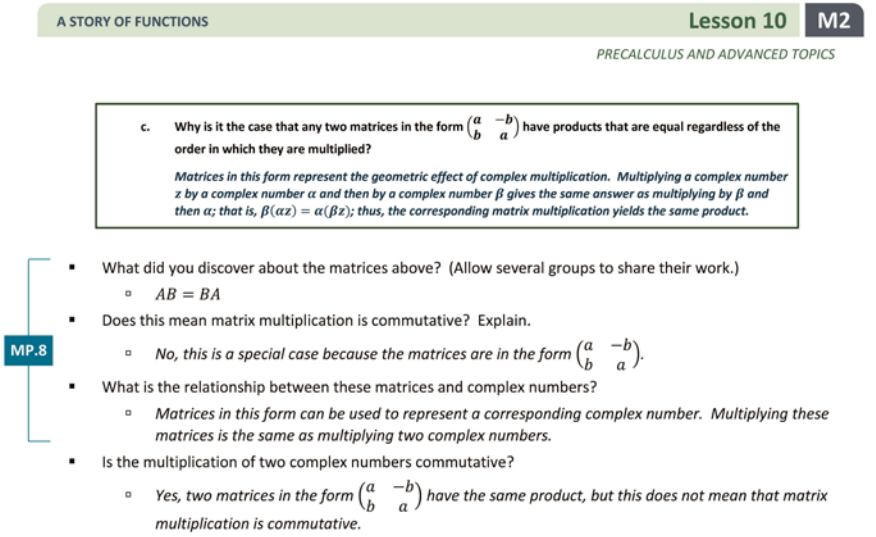
Schools and districts nationwide are experiencing student growth and impressive test scores after using *Eureka Math*. See their stories and data at greatminds.org/data.

Full Suite of Resources

Great Minds offers the *Eureka Math* curriculum as PDF downloads for free, noncommercial use. Access the free PDFs at greatminds.org/math/curriculum.

The teacher–writers who created the curriculum have also developed essential resources, available only from Great Minds, including the following:

- Printed material in English and Spanish
- Digital resources
- Professional development
- Classroom tools and manipulatives
- Teacher support materials
- Parent resources

Mathematical Process Standards	Aligned Components of *Eureka Math*
MPS.PS.1 Make sense of problems and persevere in solving them strategically.	Lessons in every module engage students in mathematical processes. These are designated in the Module Overview and labeled in lessons. For example: 
MPS.RC.1 Explain ideas using precise and contextually appropriate mathematical language, tools, and models.	
MPS.C.1 Demonstrate a deep and flexible conceptual understanding of mathematical ideas, operations, and relationships while making real-world connections.	
MPS.AJ.1 Use critical thinking skills to reason both abstractly and quantitatively.	
MPS.SP.1 Identify and apply regularity in repeated reasoning to make generalizations.	

Measurement, Geometry, and Spatial Reasoning

PC.MGSR.1 Analyze the behaviors of conic sections and polar coordinates to model mathematical and real-world situations.

South Carolina College- and Career-Ready Mathematics Standards	Aligned Components of *Eureka Math*
PC.MGSR.1.1 Identify and graph different conic sections given the equations in standard form.	Geometry M5 Lesson 17: Writing the Equation for a Circle Geometry M5 Lesson 18: Recognizing Equations of Circles Algebra II M1 Lesson 33: The Definition of a Parabola Algebra II M1 Lesson 34: Are All Parabolas Congruent? Algebra II M1 Lesson 35: Are All Parabolas Similar? Precalculus and Advanced Topics M3 Lesson 6: Curves in the Complex Plane Precalculus and Advanced Topics M3 Lesson 7: Curves from Geometry Precalculus and Advanced Topics M3 Lesson 8: Curves from Geometry
PC.MGSR.1.2 Identify different conic sections in general form and complete the square to convert the equation of a conic section into standard form.	Geometry M5 Lesson 17: Writing the Equation for a Circle Geometry M5 Lesson 18: Recognizing Equations of Circles Precalculus and Advanced Topics M3 Lesson 6: Curves in the Complex Plane Precalculus and Advanced Topics M3 Lesson 7: Curves from Geometry Precalculus and Advanced Topics M3 Lesson 8: Curves from Geometry *Supplemental material is necessary to fully address this standard.*
PC.MGSR.1.3 Define polar coordinates and relate polar coordinates to Cartesian coordinates.	Precalculus and Advanced Topics M1 Lesson 13: Trigonometry and Complex Numbers Precalculus and Advanced Topics M1 Lesson 18: Exploiting the Connection to Trigonometry Precalculus and Advanced Topics M1 Lesson 19: Exploiting the Connection to Trigonometry Precalculus and Advanced Topics M1 Lesson 20: Exploiting the Connection to Cartesian Coordinates

Measurement, Geometry, and Spatial Reasoning

PC.MGSR.2 Solve problems and model periodic phenomena with trigonometric expressions and functions.

South Carolina College- and Career-Ready Mathematics Standards	Aligned Components of *Eureka Math*
PC.MGSR.2.1 Determine the area of a triangle to solve problems.	Geometry M2 Lesson 31: Using Trigonometry to Determine Area Geometry M4 Lesson 9: Perimeter and Area of Triangles in the Cartesian Plane Precalculus and Advanced Topics M4 Lesson 7: An Area Formula for Triangles
PC.MGSR.2.2 Prove and apply the *Law of Sines* and the *Law of Cosines* to find unknown measurements in right and non-right triangles.	Geometry M2 Lesson 32: Using Trigonometry to Find Side Lengths of an Acute Triangle Geometry M2 Lesson 33: Applying the Laws of Sines and Cosines Precalculus and Advanced Topics M4 Lesson 8: Law of Sines Precalculus and Advanced Topics M4 Lesson 9: Law of Cosines Precalculus and Advanced Topics M4 Lesson 10: Putting the Law of Cosines and the Law of Sines to Use
PC.MGSR.2.3 Derive the formulas for the length of an arc and the area of a sector in a circle and apply these formulas to solve mathematical and real-world situations.	Geometry M5 Lesson 9: Arc Length and Areas of Sectors Geometry M5 Lesson 10: Unknown Length and Area Problems

South Carolina College- and Career-Ready Mathematics Standards	Aligned Components of *Eureka Math*
PC.MGSR.2.4 Determine geometrically the values of the sine, cosine, and tangent for $\frac{\pi}{6}$, $\frac{\pi}{4}$, and $\frac{\pi}{3}$ by special triangles, and use the unit circle to express the values of sine, cosine, and tangent for $\pi - 8$, $\pi + x$, and $2\pi - x$ in terms of their values for x, where x is any real number.	Geometry M2 Lesson 27: Sine and Cosine of Complementary Angles and Special Angles Algebra II M2 Lesson 4: From Circle-ometry to Trigonometry Algebra II M2 Lesson 5: Extending the Domain of Sine and Cosine to All Real Numbers Algebra II M2 Lesson 6: Why Call It Tangent? Algebra II M2 Lesson 9: Awkward! Who Chose the Number 360, Anyway? Algebra II M2 Lesson 10: Basic Trigonometric Identities from Graphs Precalculus and Advanced Topics M4 Lesson 1: Special Triangles and the Unit Circle
PC.MGSR.2.5 Define the six trigonometric ratios in terms of x, y, and r using the unit circle centered at the origin of the coordinate plane and interpret radian measures of angles as a rotation both counterclockwise and clockwise around the unit circle.	Algebra II M2 Lesson 1: Ferris Wheels—Tracking the Height of a Passenger Car Algebra II M2 Lesson 2: The Height and Co-Height Functions of a Ferris Wheel Algebra II M2 Lesson 3: The Motion of the Moon, Sun, and Stars—Motivating Mathematics Algebra II M2 Lesson 4: From Circle-ometry to Trigonometry Algebra II M2 Lesson 5: Extending the Domain of Sine and Cosine to All Real Numbers Algebra II M2 Lesson 6: Why Call It Tangent? Algebra II M2 Lesson 7: Secant and the Co-Functions Algebra II M2 Lesson 9: Awkward! Who Chose the Number 360, Anyway?
PC.MGSR.2.6 Explain symmetry, both odd and even, and periodicity of trigonometric functions.	Precalculus and Advanced Topics M4 Lesson 2: Properties of Trigonometric Functions

Numerical Reasoning

PC.NR.1 Represent and manipulate data using matrices.

South Carolina College- and Career-Ready Mathematics Standards	Aligned Components of *Eureka Math*
PC.NR.1.1 Identify the identity and zero matrices for any dimension and add, subtract, and multiply matrices.	Precalculus and Advanced Topics M1 Lesson 24: Matrix Notation Encompasses New Transformations! Precalculus and Advanced Topics M1 Lesson 25: Matrix Multiplication and Addition Precalculus and Advanced Topics M1 Lesson 26: Getting a Handle on New Transformations Precalculus and Advanced Topics M1 Lesson 27: Getting a Handle on New Transformations Precalculus and Advanced Topics M2 Lesson 2: Networks and Matrix Arithmetic Precalculus and Advanced Topics M2 Lesson 3: Matrix Arithmetic in Its Own Right Precalculus and Advanced Topics M2 Lesson 6: Linear Transformations as Matrices Precalculus and Advanced Topics M2 Lesson 10: Matrix Multiplication Is Not Commutative Precalculus and Advanced Topics M2 Lesson 11: Matrix Addition Is Commutative Precalculus and Advanced Topics M2 Lesson 12: Matrix Multiplication Is Distributive and Associative Precalculus and Advanced Topics M2 Lesson 13: Using Matrix Operations for Encryption Precalculus and Advanced Topics M2 Topic C: Systems of Linear Equations
PC.NR.1.2 Find the additive and multiplicative inverses of square matrices.	Precalculus and Advanced Topics M1 Lesson 28: When Can We Reverse a Transformation? Precalculus and Advanced Topics M1 Lesson 29: When Can We Reverse a Transformation? Precalculus and Advanced Topics M1 Lesson 30: When Can We Reverse a Transformation? Precalculus and Advanced Topics M2 Lesson 13: Using Matrix Operations for Encryption Precalculus and Advanced Topics M2 Topic C: Systems of Linear Equations

South Carolina College- and Career-Ready Mathematics Standards	Aligned Components of *Eureka Math*
PC.NR.1.3 Explain the role of the determinant in determining if a square matrix has a multiplicative inverse.	Precalculus and Advanced Topics M1 Lesson 26: Getting a Handle on New Transformations Precalculus and Advanced Topics M1 Lesson 27: Getting a Handle on New Transformations Precalculus and Advanced Topics M1 Lesson 28: When Can We Reverse a Transformation? Precalculus and Advanced Topics M1 Lesson 29: When Can We Reverse a Transformation? Precalculus and Advanced Topics M1 Lesson 30: When Can We Reverse a Transformation? Precalculus and Advanced Topics M2 Lesson 13: Using Matrix Operations for Encryption Precalculus and Advanced Topics M2 Topic C: Systems of Linear Equations
PC.NR.1.4 Find the determinant of a square matrix if and only if the matrix has a multiplicative inverse.	Precalculus and Advanced Topics M1 Lesson 26: Getting a Handle on New Transformations Precalculus and Advanced Topics M1 Lesson 27: Getting a Handle on New Transformations Precalculus and Advanced Topics M1 Lesson 28: When Can We Reverse a Transformation? Precalculus and Advanced Topics M1 Lesson 29: When Can We Reverse a Transformation? Precalculus and Advanced Topics M1 Lesson 30: When Can We Reverse a Transformation? Precalculus and Advanced Topics M2 Lesson 13: Using Matrix Operations for Encryption Precalculus and Advanced Topics M2 Topic C: Systems of Linear Equations

Numerical Reasoning

PC.NR.2 Represent and model with vector quantities.

South Carolina College- and Career-Ready Mathematics Standards	Aligned Components of *Eureka Math*
PC.NR.2.1 Represent vector quantities as directed line segments and represent magnitude and direction of vectors in component form.	Precalculus and Advanced Topics M2 Lesson 17: Vectors in the Coordinate Plane Precalculus and Advanced Topics M2 Lesson 18: Vectors and Translation Maps Precalculus and Advanced Topics M2 Lesson 19: Directed Line Segments and Vectors Precalculus and Advanced Topics M2 Lesson 20: Vectors and Stone Bridges
PC.NR.2.2 Find the components of a vector by adding and subtracting vectors on a coordinate plane using a variety of methods.	Precalculus and Advanced Topics M2 Lesson 19: Directed Line Segments and Vectors
PC.NR.2.3 Solve problems, including real-life situations, that can be represented by vectors.	Precalculus and Advanced Topics M2 Lesson 17: Vectors in the Coordinate Plane Precalculus and Advanced Topics M2 Lesson 20: Vectors and Stone Bridges Precalculus and Advanced Topics M2 Lesson 23: Why Are Vectors Useful?
PC.NR.2.4 Add and subtract vectors and multiply vectors by a scalar to find the resultant vector.	Precalculus and Advanced Topics M2 Lesson 5: Coordinates of Points in Space Precalculus and Advanced Topics M2 Lesson 6: Linear Transformations as Matrices Precalculus and Advanced Topics M2 Lesson 17: Vectors in the Coordinate Plane Precalculus and Advanced Topics M2 Lesson 18: Vectors and Translation Maps Precalculus and Advanced Topics M2 Lesson 19: Directed Line Segments and Vectors Precalculus and Advanced Topics M2 Lesson 20: Vectors and Stone Bridges Precalculus and Advanced Topics M2 Lesson 23: Why Are Vectors Useful? Precalculus and Advanced Topics M2 Lesson 24: Why Are Vectors Useful?

Numerical Reasoning

PC.NR.3 Represent complex numbers and their operations on the complex plane.

South Carolina College- and Career-Ready Mathematics Standards	Aligned Components of *Eureka Math*
PC.NR.3.1 Represent complex numbers on the complex plane in rectangular and polar form, including real and imaginary numbers, and explain why the rectangular and polar forms of a given complex number represent the same number.	Precalculus and Advanced Topics M1 Lesson 4: An Appearance of Complex Numbers Precalculus and Advanced Topics M1 Lesson 5: An Appearance of Complex Numbers Precalculus and Advanced Topics M1 Lesson 6: Complex Numbers as Vectors Precalculus and Advanced Topics M1 Lesson 8: Complex Number Division Precalculus and Advanced Topics M1 Topic B: Complex Number Operations and Transformations Precalculus and Advanced Topics M1 Lesson 18: Exploiting the Connection to Trigonometry Precalculus and Advanced Topics M1 Lesson 19: Exploiting the Connection to Trigonometry Precalculus and Advanced Topics M1 Lesson 20: Exploiting the Connection to Cartesian Coordinates
PC.NR.3.2 Represent addition, subtraction, multiplication, and conjugation of complex numbers geometrically on the complex plane; use properties of this representation for computation.	Precalculus and Advanced Topics M1 Lesson 6: Complex Numbers as Vectors Precalculus and Advanced Topics M1 Lesson 9: The Geometric Effect of Some Complex Arithmetic Precalculus and Advanced Topics M1 Lesson 10: The Geometric Effect of Some Complex Arithmetic Precalculus and Advanced Topics M1 Lesson 14: Discovering the Geometric Effect of Complex Multiplication Precalculus and Advanced Topics M1 Lesson 15: Justifying the Geometric Effect of Complex Multiplication Precalculus and Advanced Topics M1 Lesson 16: Representing Reflections with Transformations Precalculus and Advanced Topics M1 Lesson 17: The Geometric Effect of Multiplying by a Reciprocal Precalculus and Advanced Topics M1 Lesson 18: Exploiting the Connection to Trigonometry Precalculus and Advanced Topics M1 Lesson 19: Exploiting the Connection to Trigonometry Precalculus and Advanced Topics M1 Lesson 20: Exploiting the Connection to Cartesian Coordinates

Patterns, Algebra, and Functional Reasoning

PC.PAFR.1 Build new functions from existing functions to solve mathematical and real-world situations.

South Carolina College- and Career-Ready Mathematics Standards	Aligned Components of *Eureka Math*
PC.PAFR.1.1 Combine and compose functions algebraically, tabularly, and graphically.	Algebra II M3 Lesson 28: Newton's Law of Cooling, Revisited Algebra II M3 Lesson 30: Buying a Car Algebra II M3 Lesson 33: The Million Dollar Problem Precalculus and Advanced Topics M3 Lesson 16: Function Composition Precalculus and Advanced Topics M3 Lesson 17: Solving Problems by Functions Composition
PC.PAFR.1.2 Find the inverse of functions and verify algebraically, numerically, and graphically.	Precalculus and Advanced Topics M3 Topic C: Inverse Functions
PC.PAFR.1.3 Compare the key features of a function and its inverse function and use the relationship to model real-world situations and solve problems.	Algebra II M3 Lesson 19: The Inverse Relationship Between Logarithmic and Exponential Functions Precalculus and Advanced Topics M3 Lesson 20: Inverses of Logarithmic and Exponential Functions Precalculus and Advanced Topics M3 Lesson 21: Logarithmic and Exponential Problem Solving

South Carolina College- and Career-Ready Mathematics Standards	Aligned Components of *Eureka Math*
PC.PAFR.1.4 Graph and describe the effect on the graph $f(x)$ of $f(x)+k$, $f(x-k)$, $kf(x)$, and $f(kx)$, for specific values of both negative and positive values of k.	Algebra I M3 Lesson 17: Four Interesting Transformations of Functions Algebra I M3 Lesson 18: Four Interesting Transformations of Functions Algebra I M3 Lesson 19: Four Interesting Transformations of Functions Algebra I M3 Lesson 20: Four Interesting Transformations of Functions Algebra I M4 Lesson 19: Translating Graphs of Functions Algebra I M4 Lesson 20: Stretching and Shrinking Graphs of Functions Algebra I M4 Lesson 21: Transformations of the Quadratic Parent Function, $f(x)=x^2$ Algebra II M3 Lesson 20: Transformations of the Graphs of Logarithmic and Exponential Functions Precalculus and Advanced Topics M3 Lesson 15: Transforming Rational Functions

Patterns, Algebra, and Functional Reasoning

PC.PAFR.2 Explore and analyze the behaviors of rational and piecewise functions to model contextual mathematical problems.

South Carolina College- and Career-Ready Mathematics Standards	Aligned Components of *Eureka Math*
PC.PAFR.2.1 Graph rational functions and describe their key features.	Precalculus and Advanced Topics M3 Lesson 12: End Behavior of Rational Functions Precalculus and Advanced Topics M3 Lesson 13: Horizontal and Vertical Asymptotes of Graphs of Rational Functions Precalculus and Advanced Topics M3 Lesson 14: Graphing Rational Functions Precalculus and Advanced Topics M3 Lesson 15: Transforming Rational Functions

South Carolina College- and Career-Ready Mathematics Standards	Aligned Components of *Eureka Math*
PC.PAFR.2.2 Solve rational equations and inequalities in one variable and explain when extraneous solutions may arise.	Algebra II M1 Lesson 22: Equivalent Rational Expressions Algebra II M1 Lesson 23: Comparing Rational Expressions Algebra II M1 Lesson 26: Solving Rational Equations Algebra II M1 Lesson 27: Word Problems Leading to Rational Equations
PC.PAFR.2.3 Transform rational expressions in different forms.	Algebra II M1 Lesson 4: Comparing Methods—Long Division, Again? Algebra II M1 Lesson 18: Overcoming a Second Obstacle in Factoring—What If There Is a Remainder? Algebra II M1 Lesson 22: Equivalent Rational Expressions
PC.PAFR.2.4 Graph piecewise-defined functions, including step functions and absolute value functions, and describe their key features.	Algebra I M3 Lesson 15: Piecewise Functions Algebra I M3 Lesson 17: Four Interesting Transformations of Functions Algebra I M3 Lesson 18: Four Interesting Transformations of Functions Algebra I M3 Lesson 20: Four Interesting Transformations of Functions

Patterns, Algebra, and Functional Reasoning

PC.PAFR.3 Explore and analyze structures and patterns for radical functions and use radical expressions, equations, and functions to model real-life phenomena.

South Carolina College- and Career-Ready Mathematics Standards	Aligned Components of *Eureka Math*
PC.PAFR.3.1 Transform radical expressions as expressions with rational exponents and extend the properties of integer exponents to rational exponents.	Algebra II M3 Lesson 1: Integer Exponents Algebra II M3 Lesson 3: Rational Exponents Algebra II M3 Lesson 4: Properties of Exponents and Radicals

South Carolina College- and Career-Ready Mathematics Standards	Aligned Components of *Eureka Math*
PC.PAFR.3.2 Solve radical equations and describe how extraneous solutions may arise.	Algebra II M1 Lesson 28: A Focus on Square Roots Algebra II M1 Lesson 29: Solving Radical Equations
PC.PAFR.3.3 Analyze and graph radical functions.	Algebra I M4 Lesson 18: Graphing Cubic, Square Root, and Cube Root Functions Algebra I M4 Lesson 19: Translating Graphs of Functions Algebra I M4 Lesson 20: Stretching and Shrinking Graphs of Functions

Patterns, Algebra, and Functional Reasoning

PC.PAFR.4 Explore and analyze structures and patterns for exponential and logarithmic functions and use exponential and logarithmic expressions, equations, and functions to model real-life phenomena.

South Carolina College- and Career-Ready Mathematics Standards	Aligned Components of *Eureka Math*
PC.PAFR.4.1 Graph logarithmic functions and describe their key features.	Algebra II M3 Lesson 18: Graphs of Exponential Functions and Logarithmic Functions Algebra II M3 Lesson 20: Transformations of the Graphs of Logarithmic and Exponential Functions

South Carolina College- and Career-Ready Mathematics Standards	Aligned Components of *Eureka Math*
PC.PAFR.4.2 Use the definition of a logarithm, logarithmic properties, and the inverse relationship between exponential and logarithmic functions to solve problems, including real-life context.	Algebra II M3 Lesson 8: The "WhatPower" Function Algebra II M3 Lesson 12: Properties of Logarithms Algebra II M3 Lesson 13: Changing the Base Algebra II M3 Lesson 14: Solving Logarithmic Equations Algebra II M3 Lesson 15: Why Were Logarithms Developed? Algebra II M3 Lesson 19: The Inverse Relationship Between Logarithmic and Exponential Functions Algebra II M3 Lesson 24: Solving Exponential Equations Precalculus and Advanced Topics M3 Lesson 20: Inverses of Logarithmic and Exponential Functions Precalculus and Advanced Topics M3 Lesson 21: Logarithmic and Exponential Problem Solving
PC.PAFR.4.3 Model real-life situations and solve problems involving exponential and logarithmic functions.	Algebra II M3 Lesson 19: The Inverse Relationship Between Logarithmic and Exponential Functions Precalculus and Advanced Topics M3 Lesson 20: Inverses of Logarithmic and Exponential Functions Precalculus and Advanced Topics M3 Lesson 21: Logarithmic and Exponential Problem Solving

Patterns, Algebra, and Functional Reasoning

PC.PAFR.5 Explore and analyze structures and patterns of trigonometric functions and use trigonometric functions to model real-life phenomena.

South Carolina College- and Career-Ready Mathematics Standards	Aligned Components of *Eureka Math*
PC.PAFR.5.1 Graph trigonometric functions and their inverses and describe their key features.	Algebra II M2 Lesson 8: Graphing the Sine and Cosine Functions Algebra II M2 Lesson 11: Transforming the Graph of the Sine Function Algebra II M2 Lesson 12: Ferris Wheels—Using Trigonometric Functions to Model Cyclical Behavior Algebra II M2 Lesson 14: Graphing the Tangent Function Precalculus and Advanced Topics M4 Lesson 11: Revisiting the Graphs of the Trigonometric Functions
PC.PAFR.5.2 Restrict the domain of a trigonometric function to define the six inverse trigonometric functions, graph the inverse function, and evaluate inverse trigonometric expressions.	Precalculus and Advanced Topics M4 Lesson 12: Inverse Trigonometric Functions
PC.PAFR.5.3 Use inverse functions to solve trigonometric equations that arise in modeling contexts; evaluate the solutions and interpret them in terms of the context.	Precalculus and Advanced Topics M4 Lesson 12: Inverse Trigonometric Functions Precalculus and Advanced Topics M4 Lesson 13: Modeling with Inverse Trigonometric Functions Precalculus and Advanced Topics M4 Lesson 14: Modeling with Inverse Trigonometric Functions

Patterns, Algebra, and Functional Reasoning

PC.PAFR.6 Manipulate, prove, and apply trigonometric identities and equations to solve contextual mathematical problems.

South Carolina College- and Career-Ready Mathematics Standards	Aligned Components of *Eureka Math*
PC.PAFR.6.1 Apply the fundamental trigonometric identities to simplify expressions and verify other identities.	Algebra II M2 Lesson 15: What Is a Trigonometric Identity? Algebra II M2 Lesson 16: Proving Trigonometric Identities
PC.PAFR.6.2 Apply the sum, difference, double-angle, and half-angle formulas for sine, cosine, and tangent and use them to solve problems.	Algebra II M2 Lesson 17: Trigonometric Identity Proofs Precalculus and Advanced Topics M4 Lesson 3: Addition and Subtraction Formulas Precalculus and Advanced Topics M4 Lesson 4: Addition and Subtraction Formulas Precalculus and Advanced Topics M4 Lesson 6: Waves, Sinusoids, and Identities
PC.PAFR.6.3 Model real-life situations and solve problems involving trigonometric equations.	Precalculus and Advanced Topics M4 Lesson 12: Inverse Trigonometric Functions Precalculus and Advanced Topics M4 Lesson 13: Modeling with Inverse Trigonometric Functions Precalculus and Advanced Topics M4 Lesson 14: Modeling with Inverse Trigonometric Functions

Patterns, Algebra, and Functional Reasoning

PC.PAFR.7 Represent data with matrices, perform mathematical operations, and solve systems of linear equations for mathematical problems.

South Carolina College- and Career-Ready Mathematics Standards	Aligned Components of *Eureka Math*
PC.PAFR.7.1 Solve a simple system consisting of a linear equation and a quadratic equation in two variables algebraically and graphically. Understand that such systems may have zero, one, or two solutions.	Algebra II M1 Lesson 31: Systems of Equations Algebra II M1 Lesson 32: Graphing Systems of Equations
PC.PAFR.7.2 Solve an equation of the form $f(x) = g(x)$ graphically by identifying the x-coordinate(s) of the point(s) of intersection of the graphs of $y = f(x)$ and $y = g(x)$.	Algebra I M3 Lesson 16: Graphs Can Solve Equations Too Algebra II M1 Lesson 36: Overcoming a Third Obstacle to Factoring—What If There Are No Real Number Solutions?
PC.PAFR.7.3 Represent a system of linear equations as a single matrix equation in a vector variable.	Precalculus and Advanced Topics M2 Topic C: Systems of Linear Equations