Precalculus
Unit 1
Complex Number System with Vector and Algebra

- Interpret the structure of expressions
  - A-SSE.1,2
  - R

- Rewrite rational expressions
  - A-APR.6,7
  - R*

- Create equations that describe numbers and relationships
  - A-CED.1-4
  - R**

- Perform arithmetic operations with complex numbers
  - N-CN.3

- Represent complex numbers and their operations on the complex plane
  - N-CN.4

- Perform operations on vectors and use matrices in applications
  - N-VM.1-3
  - N-VM.4,5
  - N-VM6-12

R: Review; R*: Review and focus on more complicated examples and use computer algebra system; R**: Review and focus on creating absolute value equations and inequalities
Precalculus
Unit 2
Functions

Interpret functions that arise in applications in terms of the context
F-IF.4,5

Analyze functions using different representations
F-IF.7, 7d,7e

Demonstrate an understanding of functions and equations defined parametrically and graph them
F-IF.10

Graph polar coordinates and curves. Convert between polar and rectangular coordinate systems
F-IF.11

Build new functions from existing functions
F-BF.3,4
Precalculus
Unit 3
Trigonometry

Trigonometry, Geometry, and Complex Number

Trigonometric Functions
- Expand the domain of trigonometric functions using a unit circle: F-TF.4
- Model periodic phenomena with trigonometric functions: F-TF.6-7
- Prove and apply trigonometric identities: F-TF.9-10

Geometry
- Similarity, Right Triangles & Trigonometry: G-SRT.9-11

Complex Numbers in Polar Form
- Complex Numbers on the Complex Plane: N-CN.4-5
Precalculus
Unit 4
Matrices and Conic Section

Conics, Systems & Matrices

Expressing Geometric Properties with Equations
- G-GPE.3

Solve Systems of Equations
- G-GPE.3.1
- A-REI.8, 9

Matrix Operations
- N-VM.6-12

Parametric and Polar Function
- N-CN.4-5