Course: Scott Hopkins

Topic: Analytical Trigonometry

Subject Area(s):

Days: 25
Grade(s):

Key Learning: Using Trigonometric Identities to simplify and analyze expressions and solve equations.

Unit Essential Question(s): How do you Trigonometric Identities to simplify and analyze expressions and solve equations?

Concept: **Verifying trig identities**	Concept: **Sum and Difference Formulas**	Concept: **Double-angles, power reducing and half-angle formulas**
Lesson Essential Question(s): What does is mean to verify an identity?How do you use the fundamental trigonometric identities to verify identities? (A)	**Lesson Essential Question(s):** How do you use the sum and difference formulas to evaluate angles not on the unit circle?How do you use the sum and difference formulas verify identities? (A)	**Lesson Essential Question(s):** How do you use the double-angle, power-reducing, and half-angle formulas to find the exact value of a trig. Functions? How do you use the double-angle, power-reducing, and half-angle formulas to verify identities? How do you power reduce a trigonometric expression? (A)
Vocabulary: verifying identities	**Vocabulary:** Sum and difference formulas	**Vocabulary:** double-angle formula, half-angle formula, power-reducing formula

Concept: **Product-to-sum and sum-to-product formulas**	Concept: **Trigonometric Equations**	Concept:
Lesson Essential Question(s): How do you use product-to-sum and sum-to-product to simplify trigonometric expressions? How do you use product-to-sum and sum-to-product formulas to verify identities? (A)	**Lesson Essential Question(s):** How do you solve trigonometric equations?How do you solve trigonometric equations with multiply angles?How do you solve trigonometric equations in Quadratic form?How do you solve trigonometric equations using factoring?How do you use the identities to solve trigonometric equations?How do you use a calculator to solve trigonometric equations? (A)	**Lesson Essential Question(s):**
Vocabulary: product-to-sum formula, sum-to-product formula	**Vocabulary:** multiple angles	**Vocabulary:**