Unit 7: Trigonometric Functions

Relevant Course Objectives:

CO6 (Trigonometry/Periodic Modeling): Model periodic phenomena with trigonometric functions, and explain with Pythagorean Identities and the unit circle.

Essential Question:

- **How can I model periodic phenomena like ocean tides or sound waves?**

Week 20 February 22 - 26

Monday - Study Block

- No one showed up for class, soo...

Tuesday - Right Triangle Shortcuts

- HW 37/38
- Geo 5.2.1 (5-47, 48, 49, 50)
- Pythagorean Triples (optional)

Notes: Right Triangle Shortcuts

HW 39: Ch. 7 #5, 6, 7, 9 (7.1.1)

Thursday - 7.1.2 and 7.1.3

- HW 39
- The Screamer (7-12, 13, 14 - ask Claudine for substitute worksheet)
- Convert Between the Unit Circle and Graph (7-33, 34)

HW 40: Ch. 7 #15, 16, 17, 18, 21 (7.1.2)

Unit 7 Assessments:

Formative: Quiz - Thursday March 3
Summative: Unit 7 Test - Thursday March 17

Unit 7: Trigonometric Functions

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Essential Question:

- **How can I model periodic phenomena like ocean tides or sound waves?**

Week 21 February 29 - March 4

Monday - 7.1.4

- HW 40
- Graphing the Cosine Function (7-45 through 7-52)

HW 41: Ch. 7 #24, 25, 29, 30 (7.1.2) and #37 (7.1.3)

Tuesday - 7.1.5

- HW 41
- Recap Unit 7 So Far
- Defining a Radian (7-71 72, 73, 75, 76)

Notes: Parent Graphs of Sine/Cosine and Definition of a Radian

HW 42: Ch. 7 #39, 41, 42 (7.1.3) and #53, 54 (7.1.4)

Thursday - 7.1.6

- HW 42
- Building a Unit Circle (7-86 through 7-89)
- Practice Evaluating Trig Expressions (see Claudine)

HW 43: Ch. 7 #55, 56, 58, 63, 64, 65 (7.1.4)

Unit 7 Assessments:

Formative: Quiz - Thursday March 3
Summative: Unit 7 Test - Thursday March 17

Unit 7: Trigonometric Functions

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Essential Question:

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Week 22 March 7-11

Monday - 7.1.7

- HW 43
- Graphing the Tangent Function (7-99, 100, 103)
- Formative Quiz

Notes: Parent Graph of the Tangent Function

HW 44: Ch. 7 #77, 78, 79, 80, 82, 83 (7.1.5)

Tuesday - 7.2.1

- HW 44
- Transformations of Sine and Cosine (7-113, 114 [115 instead of 114 if you want])

HW 45: Ch. 7 #90, 91, 93, 94, 95, 96 (7.1.6)

Thursday - 7.2.2 and 7.2.3

- HW 45
- A New Parameter (7-126, 127, 128)
- Calculating the Period (7-138, 139, 141, 142)

Notes: Graphing Form for Trig Functions

HW 46: Ch. 7 #104, 105, 106, 107, 110, 111 (7.1.7)

Unit 7 Assessments:

Formative: Quiz - Thursday March 3
Summative: Unit 7 Test - Thursday March 17

Unit 7: Trigonometric Functions

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Essential Question:

- **How can I model periodic phenomena like ocean tides or sound waves?**

Week 23 March 14-18

Monday - 7.2.4

- HW 46
- Graph to Equation (7-152 through 7-156)

HW 47: Ch. 7 #116, 117, 120, 121, 123 (7.2.1)

Tuesday - Unit 7 Closure

- Unit 7 Study Guide

HW 48: Ch. 7 #129, 133, 135 (7.2.2) and #144, 145, 149 (7.2.3)

Thursday - Unit 7 Closure

- Unit 7 Study Guide

HW: Study for the Unit 7 Test

Week 24 March 21-25

Monday - Unit 7 Test

HW 49: TBD

Unit 7 Assessments:

Formative: Quiz - Thursday March 3
Summative: Unit 7 Test - Thursday March 17