

Grade 10 - 12

Distance Learning Module 6: Week of: May 11th through May 15th

Trigonometry

Mathematics: Algebra II, Level 3 - Modified from Unit E - Trigonometry

Targeted Goals from Stage 1: Desired Results

Content Knowledge: Students will learn the basics of right triangle trigonometry, and will be able to apply trig ratios to solve word problems. The goal of this unit is to expose students to an ample level of trigonometry for them to understand its value in the real world and to be successful in higher math.

Vocabulary: Trigonometry, Sine, Cosine, Tangent, Hypotenuse, Adjacent, Opposite, Right Angle

Skills:

1. Use algebraic methods in solving for right triangles using trigonometry
2. Use a scientific calculator to find a trigonometric ratio or an angle (inverse functions)
3. Use the relationship between similar triangles to extend their understanding of trigonometry
4. Using the properties of radicals in the manipulation of the Special Right Triangles

Expectation:

Description of Task (s):	Resources and Materials:	Daily Checks (Return to Google Classroom or snapshots from a cell phone)
Monday: Intro to Trigonometry	YouTube Video: What is Trigonometry YouTube Video: Right Triangle Trig Ratios	Worksheet: Trig Ratios
Tuesday: Finding Side Lengths	Khan Academy Video: Solving for Missing Sides	Khan Academy: Four Question Practice

Description of Task (s):	Resources and Materials:	Daily Checks (Return to Google Classroom or snapshots from a cell phone)
Wednesday: Finding Side Lengths	Khan Academy: Additional Notes with Practice on solving for missing sides	Worksheet: Right Triangle Trig Questions 4, 5, 7, 9, 11
Thursday: Finding Angles	YouTube Video: Find Missing Angles	Worksheet: Right Triangle Trig Questions 6, 8, 10, 12
Friday: Special Right Triangles	YouTube Video: Special Right Triangles	Worksheet: Special Right Triangles

Week criteria for success (attach student checklists or rubrics):

Students will be able to:

1. Recognize when using trigonometry is a useful and effective way to solve a problem
2. Find the side length of a right triangle using trigonometry when given the appropriate information
3. Find the angle measure of a right triangle using trigonometry when given the appropriate information
4. Recognize and understand that some right triangles have unique properties that allow for efficient problem solving in many applications.
5. **Supportive resources and tutorials for the week** (plans for re-teaching): Khan Academy, Kuta Software worksheets, office hours
6. remediation material for Additional Notes and Practice on Finding Angles (Inverses), and Solving Right Triangles