Unit #7: Introduction to Trig- Degrees

Content Area: **Mathematics**
Course(s): **PreCalc Trig A**
Time Period: **Semester 2**
Length: **1 week**
Status: **Published**

Standards

MA.F-TF.A.1	Understand radian measure of an angle as the length of the arc on the unit circle subtended by the angle.
MA.F-TF.A.2	Explain how the unit circle in the coordinate plane enables the extension of trigonometric functions to all real numbers, interpreted as radian measures of angles traversed counterclockwise around the unit circle.
MA.F-TF.A.3	Use special triangles to determine geometrically the values of sine, cosine, tangent for π/3, π/4 and π/6, and use the unit circle to express the values of sine, cosines, and tangent for π – □, π + □, and 2π – □ in terms of their values for □, where □ is any real number.
MA.F-TF.A.4	Use the unit circle to explain symmetry (odd and even) and periodicity of trigonometric functions.

Enduring Understandings

Students will be introduced to the world of trigonometry.

They will understand the basics of trig and be able to relate angles with circles and triangles.

Essential Questions

How can coterminal angles be used when evaluating trig functions?

What is a reference angle?

What is the unit circle? How does it relate to the special right triangles?

What are the 6 trig functions?

How do you evaluate trig functions?

Knowledge and Skills

- Define the six basic trig functions.
- Find the trig functions of acute angles.
- Determine the trig values of quadrantal angles.

- Derive cofunction identities.
- Find trig functions of special angles (45-45-90 and 30-60-90 triangles).

Transfer Goals

Recognize and solve practical or theoretical problems involving mathematics, including those for which the solution approach is not obvious, by using mathematical reasoning and strategic thinking.

Resources

1. Pre-Calculus with Limits - Aufmann

2. Trigonometry 6th edition - Lial

3. Classkick

4. Khan Academy

5. PurpleMath

6. KutaSoftware

7. CK-12

8. Quizlet

9. Albert I/O

10. Desmos

11. Problem Attic