Alg2H Unit 09 (Chapter 13): Trigonometry

Content Area: **Math**
Course(s): **Level 1 Engineering Drawing, Algebra 2 CP, Algebra 2 A, Algebra 2 H**
Time Period: **Marking Period 3**
Length: **4 weeks**
Status: **Published**

Unit Introduction

Standards

MA.F-IF.A.1	Understand that a function from one set (called the domain) to another set (called the range) assigns to each element of the domain exactly one element of the range. If f is a function and x is an element of its domain, then $f(x)$ denotes the output of f corresponding to the input x. The graph of f is the graph of the equation $y = f(x)$.
MA.F-IF.A.2	Use function notation, evaluate functions for inputs in their domains, and interpret statements that use function notation in terms of a context.
MA.F-IF.B.4	For a function that models a relationship between two quantities, interpret key features of graphs and tables in terms of the quantities, and sketch graphs showing key features given a verbal description of the relationship.
MA.F-IF.B.5	Relate the domain of a function to its graph and, where applicable, to the quantitative relationship it describes.
MA.F-IF.C.7e	Graph exponential and logarithmic functions, showing intercepts and end behavior, and trigonometric functions, showing period, midline, and amplitude.

Essential Questions

- How can you model periodic behavior?
- If you the value of the sin x, how can you find the cos x, tan x, csc x, sec x, cot x?

Content

- Sec 13.1 - Exploring Periodic Data (pg. 828)
- Sec 13.2 - Angles and the Unit Circle (pg. 836)
- Sec 13.3 - Radian Measure (pg. 844)
- Sec 13.4 - The Sine Function (pg. 851)
- Sec 13.5 - The Cosine Function (pg. 861)
- Sec 13.6 - The Tangent Function (pg. 868)
- Sec 13.7 - Translating Sine and Cosine Functions (pg. 875)

Skills

- Apply the unit circle
- Convert degrees to radians (vice versa)
- Determine if a graph is periodic
- Finding amplitude and midline
- Finding cosine and sine of angles
- Finding sine and cosine of a radian
- Identifying coterminal angles
- Identifying cycles, periods and periodic functions
- Measure and sketching angles in standard position
- Translate graphs of trigonometric equations