

<b>Accelerated Precalculus</b> <b>August &amp; September 2022</b> <b>Unit 1 – Introduction to Trigonometry</b>				
Monday	Tuesday	Wednesday	Thursday	Friday
8 1.01 Getting to Know Trig  Remind Syllabus	9 1.02 Right Triangle Trigonometry  HW: 1.02 Practice	10 1.03 Solving  HW: 1.03 Practice	11 1.04 Applications  HW: 1.04 Practice	12 <b>1.05 Quiz</b>  Radian Investigation
15 1.06 Degrees and Radians  HW: 1.06 Practice	16 1.07 Applications Arc Length  HW: 1.07 Practice	17 1.08 Coterminal Angles & Reference Angles  HW: 1.08 Practice	18 1.09 Coterminal and Reference Angles  HW: 1.09 Practice	19 <b>1.10 Quiz</b>
22 1.11 Review Special Right Triangles  HW: Special Right Triangles Maze	23 1.12 Building the Unit Circle  HW: Empty Unit Circle & Table	24 1.13 Unit Circle & Trigonometry Ratios  HW: Finish Unit Circle and Table	25 1.14 More Unit Circle  HW: Trig with the Unit Circle and Reference Angles	26 1.15 Evaluate trig given point not on Unit Circle  HW: 1.15 Practice
29 1.16 Extension  HW: 1.16 Practice	30 1.17 Finding multiple angle solutions  HW: 1.17 Practice	31 <b>1.18 Quiz</b>	9/1 1.19 Test Review	2 <b>1.20 Test Unit 1 Intro to Trig</b>

**Standards:**

MGSE9-12.F.IF.4 Using tables, graphs, and verbal descriptions, interpret the key characteristics of a function which models the relationship between two quantities. Sketch a graph showing key features including: intercepts; interval where the function is increasing, decreasing, positive, or negative; relative maximums and minimums; symmetries; end behavior; and periodicity. Analyze functions using different representations

MGSE9-12.F.IF.7 Graph functions expressed algebraically and show key features of the graph both by hand and by using technology.

MGSE9-12.F.IF.7e Graph exponential and logarithmic functions, showing intercepts and end behavior, and trigonometric functions, showing period, midline, and amplitude. Extend the domain of trigonometric functions using the unit circle

MGSE9-12.F.TF.1 Understand radian measure of an angle as the length of the arc on the unit circle subtended by the angle.

MGSE9-12.F.TF.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.

MGSE9-12.F.BF.3 Identify the effect on the graph of replacing  $f(x)$  by  $f(x) + k$ ,  $k f(x)$ ,  $f(kx)$ , and  $f(x + k)$  for specific values of  $k$  (both positive and negative); find the value of  $k$  given the graphs. Experiment with cases and illustrate an explanation of the effects on the graph using technology. Include recognizing even and odd functions from their graphs and algebraic expressions for them. Model periodic phenomena with trigonometric functions

MGSE9-12.F.TF.5 Choose trigonometric functions to model periodic phenomena with specified amplitude, frequency, and midline. Prove and apply trigonometric identities

MGSE9-12.F.TF.8 Prove the Pythagorean identity  $(\sin A)^2 + (\cos A)^2 = 1$  and use it to find  $\sin A$ ,  $\cos A$ , or  $\tan A$ , given  $\sin A$ ,  $\cos A$ , or  $\tan A$ , and the quadrant of the angle.

**Homework Keys:**

[tinyurl.com/MiltonAPC](http://tinyurl.com/MiltonAPC)

