Mrs. Medlen
Pre-Calculus
Lesson Plans

CARROLL HIGH SCHOOL

	Monday 8/7	Tuesday 8/8	Wednesday 8/9	Thursday 8/10	Friday 8/11
ACCRS (Objectives):	Use special triangles to determine geometrically the values of sine, cosine, and tangent for 3 π , 4 π , and 6 π , and use the unit circle to express the values of sine, cosine, and tangent for π – x, π + x, and 2π – x in terms of their values for x, where x is any real number. [F-TF3] Use the unit circle to explain symmetry (odd and even) and periodicity of trigonometric functions. [F-TF4]				
Before:	*Review Expectations/Textbook Resource	*Review Homework/Answer Questions	*Review Homework/Answer Questions	*Warm-Up: Unit Circle Practice	*Quiz (Unit Circle)
During:	*Lesson: **Radian/Degrees**	*Lesson: **Trig Values**	*Lesson: **Special Right Triangles & Unit Circle**	*Lesson: **Co-terminal angles** and **Unit Circle**	*Lesson: **Right Triangle Trig and Word Problems**
After:	*Group Collaboration Problems **(Radians, Degrees, Arc Length)**	*Group Collaboration Problems **(Finding trig values)**	*Practice filling in **Unit Circle**	*Group Collaboration Problems **(Finding trig values on the unit circle)**	*Group Collaboration Problems **(Right Triangle Trig)**
Desired Outcome:	Students will be able to convert between degrees and radians. Students will be able to determine the arc length of a circle.	Students will be able to find exact trig values (sine, cosine, tangent—and their reciprocals).	Students will be able to use special right triangles to fill in the unit circle.	Students will be able to find exact trig values of angles measures outside [0,360].	Students will be able to use right triangles to solve problems. Students will be able to use the calculator to calculate trig values and inverse trig values.
Formative/Summative	Student questioning, homework (self-assessment)	Student questioning, homework (self-assessment)	Student questioning, homework (self-assessment)	Student questioning, homework (self-assessment)	Quiz, student questioning
Higher Order Questions:	What is a radian measure? Explain how to find the length of an arc.	Explain how to find the sine, cosine, tangent of an angle in a right triangle. How are cot, sec, csc values related to these three?	Explain how the 45-45-90 triangle and the 30-60-90 triangle can be used to find trig values on the unit circle.	Explain how to find a trig value that is greater than 360 degrees. What if the angle is negative?	Explain the difference between finding sin(30) vs $\sin^{-1}(0.5)$.
Homework:	MMM, P5	MMM, p8	Unit Circle Practice	Unit Circle Practice & MMM, p10	n/a