

# Pre-Calc/ Col. Prep. Math Lesson Plans Week 8

**Teacher:** Ngoma Botumile A

**Subject:** Pre Calc. & Col. Prep. Math

**Week of:** 10/11-10/14/2016

**Grade:** 11 & 12

**Day/Date:** Tuesday, 10/11/ 2016

**Unit 4: Trigonometric Identities** Students analyze and transform trigonometric functions and identities.

**Unit 5: Trigonometric Equations**

Students analyze and solve trigonometric equations.

**Unit 6: Applications of Trigonometric Functions**

Students apply and analyze trigonometric functions to solve real-world problems.

**Today's Objective: Review Week:** Students will plot and analyze the six trigonometric functions

**D. E. A. R: 7:40am -8:00am**

1) As required school wide, points will be lost for lack of participation. See your D.E.A.R. download for this week.

2) No points for tardy students during D.E.A.R.

**Warm-up:** From warm-up table download

**Agenda:**

1. Warm-up Solution
2. Check downloads week 8
3. Compare graphs of sin, csc, cos, sec, tan, & cot.
4. Take pictures of pages 437 to 439 for chapter review.
5. Vocabulary Project due Friday.
6. Saturday tutorials 9:30 am to 12:30pm

**Homework:** HOW#8 and POW #8. Due Friday @ 11:59pm.

**Evaluation/Exit Ticket:** 5-Minutes Summary of what you have learned today. (1-minutes discussion and 4-minutes writing at level-0 voices) Make sure to include essential understanding/ Guiding questions in your summaries.

**TEKS:**

Process Standards, PC.1A, PC.1B, PC.1C, PC.1D, PC.1E, PC.1F, PC.1G, PC.4F, PC.2P, PC.2"O", PC.5N, PC.5M. (List of TEKS details is posted above the board.)

**ELPS:** : C.3D, C.3H, C.3E, C.5G, C.1E, & C.2H ( ELPS detail descriptions are posted in Class)

**Vocabulary:** pp388 to pp433

Asymptotes

Trig identity

Sinusoidal graph pp426

Period

Amplitude

Phase shift

**Essential Understanding/Guiding Questions:**

1. How do the six trig functions graphs relate?
2. What are attributes of a Sin and cosine graphs?
3. Even and odd functions pp 80.

**Day/Date:** Thursday: 10/13/2016

**Unit 4: Trigonometric Identities** Students analyze and transform trigonometric functions and identities.

**Unit 5: Trigonometric Equations**

Students analyze and solve trigonometric equations.

**Unit 6: Applications of Trigonometric Functions**

Students apply and analyze trigonometric functions to solve real-world problems.

**Today's Objective: Review Week:** Students will analyze the six trigonometric functions and proof fundamental trigonometric identities, On page 394

**D. E. A. R: 7:40am -8:00am**

- 1) As required school wide, points will be lost for lack of participation. See your D.E.A.R. download for this week.
- 2) No points for tardy students during D.E.A.R.

**Warm-up:** From warm-up table download

**Agenda:**

1. Warm-up Solution
2. Compare graphs of sin, csc, cos, sec, tan, & cot.
3. Vocabulary Project due Friday.
4. Saturday tutorials 9:30 am to 12:30pm

**Homework:** HOW#8 and POW #8. Due Friday @ 11:59pm.

**Evaluation/Exit Ticket:** 5-Minutes Summary of what you have learned today. (1-minutes discussion and 4-minutes writing at level-0 voices) Make sure to include essential understanding/ Guiding questions in your summaries.

**TEKS:**

Process Standards, PC.1A, PC.1B, PC.1C, PC.1D, PC.1E, PC.1F, PC.1G, PC.4F, PC.2P, PC.2”O”, PC.5N, PC.5M. (List of TEKS details is posted above the board.)

**ELPS: :** C.3D, C.3H, C.3E, C.5G, C.1E, & C.2H ( ELPS detail descriptions are posted in Class)

**Vocabulary:**

Periodic function pp391  
Reciprocal identity pp393  
Quotient identities pp 393  
Pythagorean identities pp 394  
Even function  
Odd function.

**Essential Understanding/Guiding Questions:**

1. What are attributes of csc, tan, cot and sec graphs?
2. How would you explain a periodic function using a unit circle?
3. How would you create a unit circle that has all six trig functions?

**Day/Date:** Friday, 10/14/2016

**Unit 4: Trigonometric Identities** Students analyze and transform trigonometric functions and identities.

**Unit 5: Trigonometric Equations**

Students analyze and solve trigonometric equations.

**Unit 6: Applications of Trigonometric Functions**

Students apply and analyze trigonometric functions to solve real-world problems.

**Today's Objective: Review Week:** Students will take a test on the graphs of the six trigonometric functions.

**D. E. A. R: 7:40am -8:00am**

1) As required school wide, points will be lost for lack of participation. See your D.E.A.R. download for this week.

2) No points for tardy students during D.E.A.R.

**Warm-up:** From warm-up table download

**Agenda:**

1. Warm-up Solution
2. Start your test
3. Vocabulary Project due Friday.
4. Saturday tutorials 9:30 am to 12:30pm

**Homework:** HOW#8 and POW #8. Due Friday @ 11:59pm.

**Evaluation/Exit Ticket:** 5-Minutes Summary of what you have learned today. (1-minutes discussion and 4-minutes writing at level-0 voices) Make sure to include essential understanding/ Guiding questions in your summaries.

**TEKS:**

Process Standards, PC.1A, PC.1B, PC.1C, PC.1D, PC.1E, PC.1F, PC.1G, PC.4F, PC.2P, PC.2”O”, PC.5N, PC.5M. (List of TEKS details is posted above the board.)

**ELPS:** : C.3D, C.3H, C.3E, C.5G, C.1E, & C.2H ( ELPS detail descriptions are posted in Class)

**Vocabulary:**

Test

**Essential Understanding/Guiding Questions:**

Test

# TEKS

**PC.5M** Use trigonometric identities such as reciprocal, quotient, Pythagorean, co-functions, even/odd, and sum and difference identities for cosine and sine to simplify trigonometric expressions.

**PC.5N** Generate and solve trigonometric equations in mathematical and real-world problems.

**PC.2O** Develop and use a sinusoidal function that models a situation in mathematical and real-world problems.

**PC.2P** Determine the values of the trigonometric functions at the special angles and relate them in mathematical and real-world problems.

**PC.4E** Determine the value of trigonometric ratios of angles and solve problems involving trigonometric ratios in mathematical and real-world problems.

**PC.4F** Use trigonometry in mathematical and real-world problems, including directional bearing.

**PC.4G** Use the law of sines in mathematical and real-world problems.

**PC.4H** Use the law of cosines in mathematical and real-world problems.