Pre-Calc/ Col. Prep. Math Lesson Plans Week 10

Teacher: Ngoma Botumile A **Subject:** Pre Calc. & Col. Prep. Math

Week of: 10/25-10/28/2016 **Grade:** 11 & 12

Day/Date: Tuesday,10/25/ 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 work in teams to study trigonometric identities and formulas sections 6.3 to 6.4 pp 465

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 group test page 127 transformation
3. Check downloads week 10
4. Teacher talk sections 6.3 to 6.4
5. Start group study section sections 6.3 to 6.4 pp 465
6. Saturday tutorials 9:30am to 12:30pm, UH math club practice.
7. Remember to include the answers to essential understanding questions in your Exit ticket.

Homework: POW#10,Due Friday @ 11:59pm and **Project Due Friday week 11**.

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:
Even-Odd identity
Sum and difference formula

Essential Understanding/Guiding Questions:

1. Which trig functions are even?
2. What is the difference formula for tan?

Day/Date: Thursday: 10/27/2016

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Today's Objective: Review Week: Students will work in teams to study trigonometric identities and formulas sections 6.5 to 6.6 pp 483

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Warm-up: From warm-up table download

Agenda:
1. Warm up solution
2. Check Tuesday notes.
3. Teacher talk sections 6.3 to 6.4
4. Start group study section sections 6.3 to 6.4 pp 465
5. Saturday tutorials 9:30am to 12:30pm, UH math club practice.
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ELPS: : C.3D, C.3H, C.3E, C.5G, C.1E, & C.2H
(ELPS detail descriptions are posted in Class)

Vocabulary:
Double-angle formula
Half-angle formula
Exact value
Sum-to-Product formula
Product-to-Sum formula

Essential Understanding/Guiding Questions:
1. How would you express the following difference as a product: sin(5x) – sin(3x)? pp495
2. How would you use a half angle to evaluate the exact value of sin(-15º)? Pp488

Day/Date: Friday, 10/28/2016 Complete Tuesday and Thursday work

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Today's Objective: Review Week: Today's Objective: Review Week: Students will work in teams to study trigonometric identities and formulas sections 6.5 to 6.6 pp 483 Continue from Thursday

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Warm-up: From warm-up table download

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

Vocabulary:
Double-angle formula
Half-angle formula
Exact value
Sum-to-Product formula
Product-to-Sum formula

Essential Understanding/Guiding Questions:
1. How would you express the following sum as a product: cos(2x) + cos(3x)? pp495
2. How would you use a half angle to evaluate the exact value of sin(15º)? Pp488

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.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.

Pre_calc and College Prep Math Group studies Week 10 and Week 11

You must work in your teams to compile the notes analytically and solve sample problems to demonstrate your understanding (odd numbers). Use this time wisely.

Feel free to take pictures of the book for out of class study.

Chapter 6: pp 447

6.3 Trigonometric Identities: **pp 465**

6.4 Sum and Difference Formulas: **pp 473**

6.5 Double-angle and half-angle Formula: **pp 483 *****

6.6 Product-to-Sum and Sum-to-Product Formulas: **pp 493**

Chapter 7: pp 517

7.1 Right triangle trigonometry applications: **pp 518**

7.2 The Law of Sines: **pp531**

7.3 The Law of Cosines: **pp543**

7.4 Area of a Triangle: **pp 549 *****