

Pre-Calc/ Col. Prep. Math Lesson Plans Week 11

Teacher: Ngoma Botumile A

Subject: Pre Calc. & Col. Prep. Math

Week of: 10/31-11/04/2016

Grade: 11 & 12

Day/Date: Tuesday, 11/01/ 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 6.5 to 6.6 pp 483

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 11.
3. Collect test questions
4. Complete independent study section 6.6 page 493
5. Start section indep. study 7.1 and 7.2 page 518.
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#11, Due Friday @ 11:59pm and **Project Due Friday week 11.**

Evaluation/Exit Ticket: 5-Minutes Summary of what you have learned today. (1-minute discussion and 4-minute 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:

Projectile motion

Angle of depression

Angle of elevation pp 523

Direction, bearing pp 525

Oblique triangle pp 531

Essential Understanding/Guiding Questions:

1. How does projectile motion connect to trig functions?
2. How would you explain angle of depression?

Notebook check: Thursday

Binder check: Friday

1. Pass K, NS, G grid for Binder check

Day/Date: Thursday: 11/03/2016

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 independently study application of trig functions law of cosine and area of triangle sections 7.3 and 7.4 pp 543

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. Teacher talk sections 7.3 to 7.4
3. Start group study sections 7.3 to 7.4 pp 543.
4. Notebook check
5. See Problem solving: Create a team of 4 and see Ngoma for week 13 Test and Project.
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#11, Due Friday @ 11:59pm and **Project Due Friday week 11.**

Evaluation/Exit Ticket: 5-Minutes Summary of what you have learned today. (1-minute discussion and 4-minute 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:

Law of cosines
Law of sines
Area of a triangle

Essential Understanding/Guiding Questions:

3. How does area of a triangle connect to trig functions?
4. How would you explain angle of elevation?

Problem solving:

PowerPoint Take home test and Video Project grade week 13.

- 1) page 530 Pr 75
- 2) Page 540 Pr 42
- 3) Page 541 Pr 46
- 4) Page 541 Pr 48

2. Pass K, NS, G grid for Binder check

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 independently study application of trig functions law of cosine and area of triangle sections 7.3 and 7.4 pp 543

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. Teacher talk sections 7.3 to 7.4
3. Start group study section sections 7.3 to 7.4 pp 543
4. Binder check
5. See Problem solving: Create a team of 4 and see Ngoma for week 13 Test and Project.
6. Saturday tutorials 9:30am to 12:30pm, UH math club practice.
Remember to include the answers to essential understanding questions in your Exit ticket

Homework: POW#11, 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:

Law of cosines
Law of sines
Area of a triangle

Essential Understanding/Guiding Questions:

5. How does area of a triangle connect to trig functions?
6. How would you explain angle of elevation?

Problem solving:

PowerPoint Take home test and Video Project grade week 13.

- 5) page 530 Pr 75
- 6) Page 540 Pr 42
- 7) Page 541 Pr 46
- 8) Page 541 Pr 48

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 *****