**Edwards ♥ 2016-2017 ♥ B/A Day Schedule ♥ Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ ♥ Block\_\_\_\_\_\_**

**Geometry Honors Unit 6 Syllabus**

**UNIT 6/CHAPTER 8: Right Triangles**

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| **HOMEWORK POLICY:** *In order to receive a 3, you must do the following:* |
| 1. Write your name and date along with the assignment in the top margin. All work must be done in pencil or black pen.
2. All problems/pictures must be copied (except word problems). Your pictures/work should verify your answers.
3. Every problem must be attempted to the best of your ability. Use your book and notes for assistance.
4. All work must be shown, and it should be neat and organized (hint: circle or underline your answers)
5. All book work odd problems should be checked in the back of the book and corrected using a non-black pen.
6. All worksheet problems should be checked on cindyedwards.weebly.com and fully corrected in a non-black pen.
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| **DATE** | **TEXT** | **OBJECTIVES** | ***IXL*** | **HOMEWORK ASSIGNMENT** | **GRADE** |
| Wed/Thu,Jan. 25/26 |  | **Test on Unit 5**Simplifying Radicals Review WS***= 5 point CLASSWORK grade*** |  | IXL Algebra I: Simplify Radicals Do EE.1, EE.2, EE.3, & EE.4 Must score at least 80% on each! |  |
| Fri/ThuJan. 27/Feb. 2 ***Day 1*** | 8-1 | Geometric Mean*A Day students will also need to do* ***Day 2:*** *8-2 Pythagorean Theorem/Converse in order to catch up with the B day students!* |  | p. 535-36 #9-37 odd |  |
| Mon/Tue,Jan. 30/31 |  | Geometry Mid-Assessment |  | Finish the Simplifying Review WSTake 8-2 Notes to prepare for class |  |
| Wed/Thu,Feb. 1/2***Day 2*** | 8-2 | Pythagorean Theorem/Converse ***Feb. 1: CAV Connection Day***  | ***Q.1 – Q.3*** | p. 546-47 #9-29 odd, 38-40, & 43 |  |
| Fri/Mon.Feb. 3/6***Day 3*** | 8-3 | Special Right Triangles ***Feb. 6: Report Cards Issued*** | ***Q.4*** | 8-3 Special Right Triangles HW |  |
| Tue/Wed,Feb. 7/8***Day 4*** | 8-1 to 8-3 | Review 8-1 to 8-38-2 & 8-3 Review WS ***= 5 point CLASSWORK grade*** |  | 8-1 & 8-3 Review Worksheet |  |
| Thu/Fri,Feb 9/10***Day 5*** | 8-4 | Trigonometry | ***R.1******R.6-R.10*** | p. 567-69 #17-45 odd, 34 & 46 |  |
| Mon/Tue,Feb. 13/14***Day 6*** | 8-5 | Angles of Elevation & Depression8-4 Trigonometric Review ***= 5 point CLASSWORK grade*** |  | 8-5 Angles of Elevation & Depression HW Worksheet  |  |
| Wed/Thu,Feb. 15/16***Day 7*** | 8-1to8-5 | Unit 6 Review |  | Unit 6 Test Review Worksheet |  |
| Fri/Mon,Feb 17/20***Day 8*** | 8-1to8-5 | **Test on Unit 6**  |  | **TOTAL POINTS:** |  |

In order to be successful in this unit, you must be able to solve trigonometric problems using your calculator. Please remember to bring it to class every day and set it to degree mode!

![bullseye[1]]()**Unit 6: Right Triangles**

**UNIT 6 LEARNING TARGETS: STEM Problems will be embedded throughout.**

**Target 1:** ♥ I can write a radical expression in simplified form

 **♥** I can find the geometric mean of two numbers

**♥** I can find missing lengths of sides formed by an altitude drawn to the hypotenuse of a right

 triangle using geometric means

**Target 2: ♥** I can use the Pythagorean Theorem and its converse to solve problems.

♥ I can recognize Pythagorean triples

♥ I can determine whether a triangle is acute, obtuse, or right when given the length of its sides.

**Target 3:** ♥ I can apply properties of special right triangles to find missing sides of triangles.

♥ I can apply properties of special right triangles to solve real-world problems.

**Target 4:** ♥ I can solve problems using sine, cosine, and tangent functions of acute angles in right triangles.

♥ I can solve real-world problems involving angles of elevation and depression.

♥ I can use the relationship between the sine and cosine of complementary angles.

**UNIT 6 ENDURING UNDERSTANDINGS: The properties of right triangles are used to solve real world situations.**

1. Certain right triangles have properties that allow short cuts to determine side lengths.
2. If certain combinations of side lengths and angle measures of a right triangle are known, then ratios may be used to find other side lengths and angle measures.

**ESSENTIAL QUESTIONS: How are right triangles used to solve real world problems?**

1. How are the sides of right triangles related?
2. Under what conditions are trigonometric ratios used?
3. How are angles of elevation and depression used to find horizontal distance and vertical height?

**SOL Objectives (2009):**

**G.8** The student will solve real-world problems involving right triangles by using the Pythagorean Theorem and its converse, properties of special right triangles, and right triangle trigonometry.

**Virginia Beach Objectives:**

**GH.TR.6.1** The student will use the Pythagorean Theorem and its converse to solve problems involving Science, Technology, Engineering and Mathematics (STEM), and recognize Pythagorean Triples. (SOL G.8)

**GH.TR.6.2** The student will apply properties of special right triangles to problems involving Science, Technology, Engineering and Mathematics (STEM), and find decimal approximations for the solutions. (SOL G.8)

**GH.TR.6.3** The student will solve problems involving Science, Technology, Engineering and Mathematics (STEM), using sine, cosine and tangent functions of acute angles in right triangles. (SOL G.8