Precalculus Assignments Chapter 4.1 - 4.3

See all state frameworks online at: <https://bit.ly/2bmrqQx>

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| **Day 1** | Handouts, Get to know, Check out textbooks, Start Section 4.1. |
| **Day 2** | Section 4.1 Objectives: *Students will describe angles, use radian measure, and use degree measure and convert between degree and radian measure.*  - Section 4.1 “Radian and Degree Measure” Textbook Assignment:  Part 1: Pages 267-269, Vocabulary Check #s: 1-5, Exercise #s: 8, 11-14, 15, 17, 19, 25-26, 28-29, 33, 35, 37, 40, 43, 47, and 49.  - Worksheet 4.1 #1 - 8 Check Solutions at: <http://bit.ly/2vRNKcb> |
| **Day 3** | **- Quiz first half of Section 4.1 (Calculator Allowed)**  - Continue Section 4.1  - Part 2: Page 268 #s: 55, 60, 61-67, 71, 73-74, and 78. (Odd Solutions: <https://bit.ly/2uZKfyC>) (Instructional Videos: <https://bit.ly/2Ab34Vp>)  -Worksheet 4.1 #9 -12 Check Solutions at: <http://bit.ly/2vRNKcb> |
| **Day 4** | **- Quiz Section 4.1 (Calculator Allowed)**  - Start Section 4.2 - Build the Unit Circle |
| **Day 5-6** | Section 4.2 Objectives: *Students will identify a unit circle and describe its relationship to real numbers, evaluate trigonometric functions using the unit circle, use domain and period to evaluate sine and cosine functions, and use a calculator to evaluate trigonometric functions.*  - Section 4.2 “Trig Functions: The Unit Circle” Textbook Assignment: Pages 275-276, Vocabulary Check #s: 1 and 3. Exercise #s: 7, 9, 11, 13, 15, 19, 23, 26, 29, 31, 33, 36-42, 43, 45, 47-48, 51, 53, and 54. (Odd Solutions: <https://bit.ly/2uRHD6y>) (Instructional Videos: <https://bit.ly/2v3L35v>)  - Unit circle worksheet.  - Worksheet 4.2 A and Worksheet 4.2 B. (Check Solutions at: <http://bit.ly/2vRXQtR> and <http://bit.ly/2hO4ITR>)  **Webassign 4.1-4.2 Due** |
| **Day 7** | **- Quiz Section 4.2 (Calculator Allowed)** - Start Section 4.3 - Review basic (sin, cos, tan) |
| **Day 8** | Section 4.3 Objectives: *Students will evaluate trigonometric functions of acute angles, use*  *the fundamental trigonometric identities, use a calculator to evaluate trigonometric functions, use*  *trigonometric functions to model and solve real-life problems.*  - Section 4.3 “Right Triangle Trigonometry” Textbook Assignment:  Pages 284-287, Vocabulary Check #s: 1, 2 and 4. Exercise #s: 5, 7, 11, 15, 17, 23-28, 38-40, 53, 55, 57, 59, 64, 66, 65, 67, 68, 75, 77, 78, and 81. (Odd Solutions: <https://bit.ly/2mGJd6N>) (Instructional Videos: <https://bit.ly/2LpUIyv>) |
| **Day 9** | **- Basic Trig Identities Quiz 4.3**  - Section 4.3 Beginner Trig Identities Worksheet  - 4.3 Section Trig Identities Worksheet (Possible Solutions at: <http://bit.ly/1MmLNFN>) |
| **Day 10** | - Finish 4.3 Trig Identities Worksheet  - Test Review Worksheet for 4.1 – 4.3 #1. (Check Solutions at: <http://bit.ly/1JfztrQ>) **Webassign 4.3 Due** |
| **Day 11** | **- Quiz Section 4.3 (Part 1 with allow a Calculator and Part 2 does not allow a Calculator)**  - Test Review worksheet for 4.1 – 4.3 #2. (Check Solutions at: <http://bit.ly/2gY6YI2>) |
| **Day 12** | **- Test Sections 4.1 -4.3 Part 1 without Calculator and Part 2 with Calculator**  - Start Section 4.4 |

Strand: Trigonometry

Content Standard 3: Students will develop and apply the definitions of the six trigonometric functions and use the definitions to solve problems and verify identities.  
  
Content Standard 4: Students will solve trigonometric equations and sketch the graph of periodic trigonometric functions.

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| T.3.PC.1 | Understand radian measure of an angle as the length of the arc on the unit circle subtended by the angle. |
| T.3.PC.2 | Explain how the unit circle in the coordinate plane enables the extension of trigonometric functions to all real numbers, interpreted as radian measures of angles traversed around the unit circle. |
| T.3.PC.3 | (+) Use special right triangles to determine geometrically the exact values of sine, cosine, tangent for    (+) Use the unit circle to express the values of sine, cosine, and tangent for , and in terms of their exact values for , where is any real number. |
| T.3.PC.4 | (+)Develop the Pythagorean identity, sin2(𝜃) + cos2(𝜃) = 1.  (+)Given sin(𝜃) , cos(𝜃), or tan(𝜃) and the quadrant of the angle, use the  Pythagorean identity to find the remaining trigonometric functions. |
| T.3.PC.9 | Define and use reciprocal functions, cosecant, secant, and cotangent to solve problems |
| T.4.PC.4 | (+) Use inverse functions to:  Solve trigonometric equations that arise in modeling context(s)\*;  Evaluate the solutions of trigonometric equations, with or without technology, and  Interpret the solutions of trigonometric equations in terms of the context(s).\* |