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| **LG #** | **P04** | **Standards:** | **F-TF.1.1, F-TF.1.2., F-TF.1.3, F-TF.1.4** |
| **4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond instruction to the standard.****The student will be able to:*** Justify, algebraically, the symmetry of trigonometric functions.

**No major errors or omissions regarding the score 4.0 content.** |
| **3.5** | In addition to 3.0, in-depth inferences and applications with partial success. |
| **3.0** | **Students will be able to extend the domain of trigonometric functions using the unit circle**.**The student will be able to:*** Understand radian measure of an angle as the length of the arc on the unit circle subtended by the angle (F-TF.1.1)
* Explain how the unit circle in the coordinate plane enables the extension of trigonometric functions to all real numbers (F-TF.1.2.)
* Use the unit circle to express the values of sine, cosine, and tangent for π–x, π+x, and 2π–x in terms of their values for x, where x is any real number (F-TF.1.3)
* Use the unit circle to explain symmetry (odd and even) and periodicity of trigonometric functions **(F-TF.1.4)**

**No major errors or omissions regarding the score 3.0 content (simple or complex).** |
| **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of 3.0 content. |
| **2.0** | **The student recognizes and describes specific terminology such as:**

|  |  |  |
| --- | --- | --- |
| * Radians
 | * Unit Circle
 | * Subtended
 |
| * Counterclockwise
 | * Special Triangles
 | * Sine, Cosine, Tangent
 |
| * Periodicity
 | * Symmetry
 | * Even function
 |
| * Odd Function
 | * Coordinate Plane
 | * Coterminal Angles
 |

**The student will be able to:*** Convert between degrees and radians (F-TF.1.1)
* Use special triangles to determine geometrically the values of sine, cosine, tangent for π/3, π/4 and π/6 (F-TF.1.3)
 |
| **1.5** | Partial knowledge of the score 2.0 content, but major errors or omissions regarding score 3.0 content. |
| **1.0** | With partial understanding of some of the simpler details and processes and some of the more complex ideas and processes. |
| **0.5** | With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes. |
| **0.0** | Even with help, no understanding or skill is demonstrated |