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| **LG #** | **P08** | **Standards:** | **G-SRT.3.8, G-SRT.4.9, G-SRT.4.10, G-SRT.4.11** |
| **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:*** Construct triangles to illustrate and then prove algebraically the ambiguous case of Law of Sines (SSA).

**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 define trigonometric ratios and apply trigonometry to general triangles.****The student will be able to:*** Use trigonometric ratios and the Pythagorean Theorem to solve right triangles in applied problems (G-SRT.3.8)
* Derive the formula A = 1/2 ab sin(C) for the area of a triangle by drawing an auxiliary line from a vertex perpendicular to the opposite side (G-SRT.4.9)
* Prove the Laws of Sines and Cosines. (G-SRT.4.10)
* Use the Law of Sines to determine the number of possible triangles (G-SRT.4.10)
* Understand and apply the Law of Sines and the Law of Cosines to find unknown measurements in right and non-right triangles(e.g., surveying problems, resultant forces) (G-SRT.4.11)

**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:**

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| * Pythagorean Theorem
 | * Ambiguous case
 | * Theta $(θ)$
 |
| * Trigonometric ratios
 | * Angle of Elevation
 | * Angle of Depression
 |
| * Law of Sines
 | * Law of Cosines
 | * Auxiliary line
 |

**The student will be able to:*** Use trigonometric ratios and the Pythagorean Theorem to solve right triangles(G-SRT.3.8)
* Use Laws of Sines and Cosines to solve problems (G-SRT.4.10)
* Find unknown measurements in right and non-right triangles (G-SRT.4.11)
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| **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 |