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| --- | --- | --- | --- |
| **LG #** | **812** | **Standards:** | **8.G.2.6, 8.G.2.7, 8.G.2.8** |
| **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:*** Adapt the Pythagorean Theorem to use in scale drawings, map reading, and indirect measurements.

**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 understand and apply the Pythagorean Theorem.****The student will be able to:*** [Explain a proof of the Pythagorean Theorem. (8.G.2.6)](http://www.cpalms.org/Public/PreviewResource/Preview/70737)
* [Explain a proof of the converse of Pythagorean Theorem. (8.G.2.6)](http://www.cpalms.org/Public/PreviewResource/Preview/70752)
* [Calculate the length of a leg of a right triangle using Pythagorean Theorem. (8.G.2.7)](http://www.cpalms.org/Public/PreviewResource/Preview/70878)
* [Calculate the length of the hypotenuse of a right triangle using Pythagorean Theorem. (8.G.2.7)](http://www.cpalms.org/Public/PreviewResource/Preview/70884)
* Solve real-world and mathematical problems using Pythagorean Theorem in two and [three dimensions](http://www.cpalms.org/Public/PreviewResource/Preview/70896). ([8.G.2.7](http://www.cpalms.org/Public/PreviewResource/Preview/70904))
* [Calculate the distance between two points in a coordinate plane using the Pythagorean Theorem.](http://www.cpalms.org/Public/PreviewResource/Preview/64705) ([8.G.2.8](http://www.cpalms.org/Public/PreviewResource/Preview/64709))

**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:**

|  |  |  |
| --- | --- | --- |
| * Pythagorean Theorem
 | * Hypotenuse
 | * Diagonal
 |
| * Converse
 | * Right angle
 | * Ordered pair
 |
| * Proof
 | * Square root
 | * Coordinate plane
 |
| * Leg
 | * Radical
 |  |

**The student will be able to:*** Identify squaring and taking the square root as inverse operations, and apply this to solving equations. (8.EE.1.2 🡪 LG 802)
* Evaluate squares and square roots. (8.EE.1.2 🡪 LG 802)
* Explain how to identify the legs and hypotenuse of a right triangle. (8.G.2.6)
* [Calculate the lengths of the legs of a right triangle on the coordinate plane. (8.G.2.8)](http://www.cpalms.org/Public/PreviewResource/Preview/64711)
 |
| **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 |