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| **LG #** | **803** | **Standards:** | **8.EE.1.3, 8.EE.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:*** Connect properties of scientific notation to applications within scientific context (i.e. distances in solar system, size of atoms, etc.)

**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 apply integer exponents to perform operations involving scientific notation.****The student will be able to:*** [Compare the magnitude of two or more numbers written in scientific notation.](http://www.cpalms.org/Public/PreviewResource/Preview/56083) ([8.EE.1.3](http://www.cpalms.org/Public/PreviewResource/Preview/55434))
* Perform operations ([addition, subtraction](http://www.cpalms.org/Public/PreviewResource/Preview/62509), [multiplication, and division](http://www.cpalms.org/Public/PreviewResource/Preview/62549)) with numbers expressed in scientific notation[, including problems where both decimal and scientific notation are used](http://www.cpalms.org/Public/PreviewResource/Preview/62432), by applying laws of exponents. (8.EE.1.4)
* Determine appropriate units of measurement for very large or vary small quantities. (8.EE.1.4)
* [Interpret scientific notation that has been generated by technology. (8.EE.1.4)](http://www.cpalms.org/Public/PreviewResource/Preview/58623)

**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:**

|  |  |  |
| --- | --- | --- |
| * Scientific notation
* Standard form of scientific notation
 | * Expanded form of scientific notation
* Base
 | * Powers of 10
* Magnitude
* Significand
 |

**The student will be able to:*** Understand base ten number system and place value. (8.EE.1.3, 8.EE.1.4)
* [Rewrite numbers in standard form in scientific notation. (8.EE.1.3)](http://www.cpalms.org/Public/PreviewResource/Preview/55431)
* Expand numbers written in scientific notation into standard form. (8.EE.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 |