|  |  |  |  |
| --- | --- | --- | --- |
| **LG #** | **A110** | **Standards:** | **F-LE.1.1, F-LE.1.2, F-LE.1.3, F-LE.2.5** |
| **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:*** Collect and interpret exponential growth or decay data relevant to other content areas, i.e. polar ice caps, cell growth, population density, 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 construct and compare linear and quadratic models and interpret parameters in context.****The student will be able to:*** [Prove that linear functions grow by equal differences over equal intervals. (F-LE.1.1a)](http://www.cpalms.org/Public/PreviewResource/Preview/69183)
* [Prove that exponential functions grow by equal factors over equal intervals. (F-LE.1.1a)](http://www.cpalms.org/Public/PreviewResource/Preview/69248)
* Construct linear functions [given a graph](http://www.cpalms.org/Public/PreviewResource/Preview/59820), [a description of a relationship](http://www.cpalms.org/Public/PreviewResource/Preview/60540), or [a table of values](http://www.cpalms.org/Public/PreviewResource/Preview/59834). (F-LE.1.2)
* Construct exponential functions [given a graph](http://www.cpalms.org/Public/PreviewResource/Preview/60542), [a description of a relationship](http://www.cpalms.org/Public/PreviewResource/Preview/59826), or [a table of values](http://www.cpalms.org/Public/PreviewResource/Preview/59832). (F-LE.1.2)
* [Explain using graphs and tables how a quantity increasing exponentially eventually exceeds a quantity increasing linearly, quadratically, or (more generally) as a polynomial function.](http://www.cpalms.org/Public/PreviewResource/Preview/60543) ([F-LE.1.3](http://www.cpalms.org/Public/PreviewResource/Preview/69347))
* [Interpret the parameters in a linear function in terms of a context (slope and y-intercept).](http://www.cpalms.org/Public/PreviewResource/Preview/56667) ([F-LE.2.5](http://www.cpalms.org/Public/PreviewResource/Preview/56672))
* [Interpret the parameters in an exponential function in terms of a context (initial value and growth rate or decay). (F-LE.2.5)](http://www.cpalms.org/Public/PreviewResource/Preview/69917)

**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:**

|  |  |  |
| --- | --- | --- |
| * Interval
 | * Parameter
 | * Growth Rate
 |
| * Decay Rate
 | * Initial Value
 | * Exponential Function
 |
| * Linear Function
 | * Quadratic Function
 | * Slope
 |
| * Y- intercept
 |   |  |

**The student will be able to:*** [Distinguish between situations that can be modeled with linear functions and with exponential functions. (F-LE.1.1)](http://www.cpalms.org/Public/PreviewResource/Preview/69163)
* [Recognize situations in which one quantity changes at a constant rate per unit interval relative to another. (F-LE.1.1b)](http://www.cpalms.org/Public/PreviewResource/Preview/69333)
* [Recognize situations in which a quantity grows or decays by a constant percent rate per unit interval relative to another. (F-LE.1.1c)](http://www.cpalms.org/Public/PreviewResource/Preview/69333)
 |
| **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 |