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|  **LG #** | **AF03** | **Standards:** | **F-IF.3.7e, F-IF.3.8b, F-LE.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:*** Construct an even or odd function using translations, dilations and reflections from a given transformed function

**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 write exponential and logarithmic functions in equivalent forms and graph with and without technology.****The student will be able to:*** Graph exponential and logarithmic functions, showing intercepts and end behavior (F-IF.3.7e)
* Write a function defined by an expression in different but equivalent forms to reveal and explain different properties of the function using the properties of exponents to interpret expressions for exponential functions. For example, identify percent rate of change in functions such as $y=(1.02)^{t}, y=(1.01)^{12t}, y=(1.2)^{{t}/{10}}$ (F-IF.3.8b)
* Express as a logarithm the solution to $ab^{ct}=d$, where a, c, and d are numbers and the base b is 2, 10, or e (F-LE.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:**

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| * Exponent
 | * Logarithm
 | * Intercepts
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| * End Behavior
 | * Asymptote
 | * Exponential Growth
 |
| * Exponential Decay
 | * Rate of Change
 | * Models
 |
| * Base
 | * Exponent
 | * Common Logarithm
 |
| * Natural Logarithm
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**The student will be able to:*** Evaluate Logarithms using technology(F-LE.1.4)
* Classify exponential functions as exponential growth or decay (F-IF.3.8b)
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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 |