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| **LG #** | **MCR13** | **Standards:** | **F-IF.2.4, F-IF.2.5, F-IF.2.6** |
| **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:*** Demonstrate that the rate of change can be written in terms of the difference quotient, $\frac{∆y}{∆x}=\frac{f\left(x+h\right)-f(x)}{h}$-.
* Prove the slope formula for a linear function using the difference quotient.

**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 interpret functions that arise in real world contexts, including restricting domain/range and interpreting average rate of change.****The student will be able to:*** Interpret key features of graphs and tables such as intercepts, increasing/decreasing intervals, positive/negative values, relative maximums/minimums, symmetries, end behavior, and periodicity. (F-IF.2.4)
* Sketch graphs showing key features given a verbal description of the relationship.
* (F-IF.2.4)
* Determine appropriate values of the domain of a function in terms of the context of the problem. For example, discrete vs. continuous, positive numbers vs. all real numbers, etc. (F-IF.2.5)
* Interpret the average rate of change of a function (presented as a graph or a table) over a specified interval. (F-IF.2.6)
* Estimate the rate of change from a graph. (F-IF.2.6)

**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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| * Increasing
 | * Range
 | * Interval
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| * Decreasing
 | * Symmetries
 | * Odd/Even Functions
 |
| * Periodicity
 | * End Behavior
 | * Domain
 |
| * Average Rate of Change
 | * Relative Minimums/Maximums
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**The student will be able to:*** Identify key features of graphs and tables such as intercepts, increasing/decreasing intervals, positive/negative values, relative maximums/minimums, symmetries, end behavior, and periodicity. (F-IF.2.4)
* Calculate the average rate of change of a function (presented as a graph or a table) over a specified interval. (F-IF.2.6)
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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 |