**GSE Algebra 2 Unit 4: Rational and Radical Relationships**

**Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

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| **Unit: 4B** | **Homework**: **4** |
| **Standard**:  **Interpret functions that arise in applications in terms of the context**   * **MCC9**-**12.F.IF.4** For a function that models a relationship between two quantities, interpret key features of graphs and tables in terms of the quantities, and sketch graphs showing key features given a verbal description of the relationship. Key features include: intercepts; intervals where the function is increasing, decreasing, positive, or negative; relative maximums and minimums; symmetries; and end behavior. *(Limit to radical and rational functions.)*   **Analyze functions using different representations**   * **MCC9**-**12.F.IF.7d (+)** Graph rational functions, identifying zeros and asymptotes when suitable factorizations are available, and showing end behavior. | |
| **Essential Question:**  What are the characteristics of the graph of a rational function and what is the significance of each characteristic? | |
| **Key Words**:  Asymptote, degree, factor, factoring, horizontal asymptote, rational function, vertical asymptote, zero | |
| **Recommended Resources:**   1. http://www.walch.com/rr/00207 2. http://www.walch.com/rr/00208 3. http://www.walch.com/rr/00209 4. http://www.walch.com/rr/00210 | |
| Sketch the graph of the given rational function on a coordinate plane. State the asymptotes and zeros, if any. State the end behavior. | |
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