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| **Unit 7/8 Exponential/Logarithms** | | |
| **Concepts**   * Day 1- Sequences * Day 2- Series * **Honors Day 3- Sequences and Series continued** * Day 3- Exponentials- properties, interest, intro to “e” * Day 3- Graphing Exponentials * Day 1- Logarithms, inverses, converting between two forms * Day 2- Logarithms, properties * Day 3- Logarithms, solving logarithmic equations * Day 4- Logarithms, graphing * Day 5- Modeling | **Core**  F.IF.7  F.BF.4  F.LE.4  F.IF.7  A.REI.11  F.BF.1  A.SSE.4  Objectives:  I can calculate terms of sequences  I can write a series with sigma notation  I can derive the formula for the sum of a geometric series (when the common ratio is not 1)  I can use the formula of a geometric series to solve problems  I can apply exponential properties and use them  I can graph exponential functions given an equation  Vocabulary: sequence, series, sigma, summation, “e”, asymptote, exponentials growth, decay, recursive, explicit  I understand that the logarithm is the inverse of an exponential  **I can verify an inverse function using composition**  I can convert between logarithm and exponential form  I can graph logarithmic functions.  I can solve exponential and logarithmic equations  I can use exponentials and logarithms to model real world problems  I can solve for a different variable in an exponential literal equation  Vocabulary: logarithm, inverse, base, argument, exponent, change of base formula, asymptote, common log, product/sum/difference/quotient/power properties, inverse/identity property, natural log | **Resources**    Financial Task (house car)  Earthquake task  pH tasks  Day 1- 12.1, 12.2  Day 2- 12.3  Day 3- Module 13  Day 1- 15.1  Day 2- 16.1  Day 3- 16.2  Day 4- 15.2  Day 5- Module 14 (throughout) |