Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Block: \_\_\_\_\_\_\_

Algebra 2 Honor Spiral 23 - Review

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| Rational Equations; Sequences | |
| 1. Give the next two terms of the sequence below, then write the general rule.   3, -7, -17, … | 4. Solve the rational equations. Be sure to check for extraneous solutions.  . |
| 2. Given the sequence below, write the general rule (a­n).  1/3, 2, 12, 72 …  3. Write a general rule for the sequence below. Then find the 8th term.  800, -400, 200, 100 … |
| Series | |
| Find the sum of the series.  5.  6.  7. | Find the sum of the series, if possible:  8.  9. |
| Exponential and Logarithmic Functions - Graphs | |
| Graph the Exponential function. Include at least three points and identify any asymptotes       |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | |  | |  |  | | --- | --- | | x | y | |  |  | |  |  | |  |  | |  |  | |  |  | | | Graph the Logarithmic function. Include at least three points and identify any asymptotes  11.   |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | |  | |  |  | | --- | --- | | x | y | |  |  | |  |  | |  |  | |  |  | |  |  | | |
| Logarithm Basics | |
| 12. Convert Each Exponential to Log form. | 13. Evaluate Each Logarithm |
| Exponential and Logarithmic Equations and Models:  A=P(1+r)n, A=P(1+r/n)nt, A=Pert | |
| 14. Solve each equation: | 15. Write an equation to fit each model and use it to answer the question.  Mr. Butterworth started a new colony of amoebas with 24 amoebas. After 2 days, the population, which grows continuously, had tripled. How many amoebas would he have after 23 days?  Equation: Amoebas:  Mr. Avigian invested the fortune he earned from his brilliant acting career in a bank account that pays 4% interest, compounded quarterly. If he started with $1,000,000, how much will he have when he retires in six years, if he doesn’t make any additional deposits?  Equation: Money: |