Unit 5 Warm Up: Exponential and Logarithmic Functions Algebra 2 Kitt

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Period:\_\_\_\_\_\_\_\_

**5.1 Solving Logarithms/Exponentials with Common Bases**

1. Evaluate the following logarithms:

 A. B. C.

**5.2 Properties of Logarithms and Natural Logs**

2. Use the properties of logarithms to condense the following: .

3. Use the properties of logarithms to expand the following:

4. Evaluate the following using properties of logarithms

5. Evaluate the following using properties of natural logarithms:

**5.3 Solving Logarithms and Natural Log Equations**

6. Solve the following equations:

A. B.

**5.4 Solving Exponential Equations**

7. Solve the following equations:

 A. B.

**5.5 Graphing Exponential and Logarithm Functions**

8. Graph the following functions:

 A. B.

 

Domain:\_\_\_\_\_\_\_\_ Domain:\_\_\_\_\_\_\_\_

Range:\_\_\_\_\_\_\_\_\_ Range:\_\_\_\_\_\_\_\_\_

Asymptote:\_\_\_\_\_\_\_ Asymptote:\_\_\_\_\_\_\_

**5.6 Exponential Growth and Decay and**

9. The population of Denver starts off at 20,000, and grows by 13% each year. Write an exponential growth model and find the population after 10 years.

10. A car bought for $13,000 depreciates at 12% per annum. What is its value after 7 years?

11. Suppose you invest $1050 at an annual interest rate of 5.5% compounded continuously. How much will you have in the account after five years?

13. An amount of $3,000.00 is deposited in a bank paying an annual interest rate of 3 %, compounded continuously. How long would it take for the money to double?