HW 9-2 Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Secondary III Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period:\_\_\_\_\_\_\_\_

**Properties of Logarithms**

Simplify and evaluate the following expressions by using properties of logarithms

1.  2.  3. 

4.  5. 

Write each expression as a sum and/or difference of logarithms. Write exponents as coefficients.

6.  7.  8. 

9.  10. 

Write each expression as a single logarithm

11.  12. 

13.  14. 

15. 

Use the Change-of-Base to write the following in only common logarithms. Then use your calculator to evaluate each.

16.  17.  18.  19. 

Review

Determine how many terms in the series and then find the sum

1. 3, 6, 12, …, 12288 2. 5, 15, 45, …., 98415

1. 3

3. 2

5. 1

7. 

9. 

11. 2

14. 

17. .528

19. -.792