

CW# _____

Math 3

Name: _____

Logarithms Practice #2

Date: _____

Period: A1 A2 A3 B1 B2 B3

1. (NEW) Solve for x. (Make sure to isolate the logarithm part of the equation before rewriting in exponential form.)

a. $x = \log_3 9 + 2$

b. $2 \cdot \log_x 32 = 10$

c. $-\log_7 x = 1$

2. (NEW) Use the properties of logarithms to rewrite each of the following expressions as a single logarithm, if possible.

a. $\log_{1/2}(4) + \log_{1/2}(2) - \log_{1/2}(5)$

b. $\log_2(M) + \log_3(N)$

d. $12\log_5(x) + 2\log_5(x)$

c. $\log(k) + x \log(m)$

3. (NEW) Solve each of the following equations to the nearest 0.001. (HINT: From exponential form, take log of both sides and use your calculator.)

a. $(5.825)^{(x-3)} = 120$

b. $18(1.2)^{(2x-1)} = 900$

4. (NEW) Sketch the graph of $y = \log_4(x + 7) + 2$ and describe the transformation from its parent graph.

5. (NEW) Complete the table below. Write an equation that represents this relationship.

x	1	3	9	27		243			
y			2		4		6	7	8

