

8.3 Properties of Logarithms

CA #2

Name: _____

Directions #1-3: Expand each logarithm.

1) $\log_2 5h^3$

2) $\log_5 \sqrt[3]{x}$

3) $\log \frac{n^3}{m^6}$

Directions #4-5: Condense each logarithm.

4) $3 \log_4 x + 5 \log_4 y$

5) $9 \log_6 g - 3 \log_6 h$

Directions #6-9: Simplify.

6) $\log_3 72.9 + \log_3 20 - \log_3 2$

7) $\log_2 80 + \log_2 32 - \log_2 5$

8) $\log_5 5^{2x+3} + \log 10^{6x}$

9) $\log_{(2x+3)}(2x+3)^{5x} - \log_9 9^{4x-8}$

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Corrective Assignment Answers

1) $\log_2 5 + 3 \log_2 h$ 2) $\frac{1}{3} \log_5 x$ 3) $3 \log n - 6 \log m$ 4) $\log_4 x^3 y^5$ 5) $\log_6 \frac{g^9}{h^3}$

6) 6 7) 9 8) $8x + 3$ 9) $x + 8$