

Name _____ Date _____ Pd _____

6.5 Properties of Logarithmic Functions and Change of Base Formula DAY ONE CYU

Use when you get it right all by yourself

S Use when you did it all by yourself, but made a silly mistake

H Use when you could do it alone with a little help from teacher or peer

G Use when you completed the problem in a group

X Use when a question was attempted but wrong (get help)

N Use when a question was not even attempted

CONCEPTS	BASIC	INTERMEDIATE	ADVANCED
Properties of Logarithms		1 - 12	
Expanding Logarithms		1 - 6	
Condensing Logarithms		7 - 12	
Change of Base Formula	13 - 16		
CRF	1 - 16		
Rounding	13 - 16		

Properties of Logarithmic Functions:

Expand each logarithmic expression completely. No decimals.

1. $\log\left(\frac{6}{11}\right)^5$

2. $\log(3 \cdot 2^3)$

3. $\log\frac{2^4}{5}$

4. $\log\frac{x}{y^6}$

5. $\log(a \cdot b)^2$

6. $\log\sqrt[3]{x \cdot y \cdot z}$

Condense the logarithmic expression into a single logarithm.

7. $4 \log 3 - 4 \log 8$

8. $\log 2 + \log 11 + \log 7$

9. $\frac{2\log 7}{3}$

10. $6\log_3 u - 6\log_3 v$

11. $20\log_6 u + 5\log_6 v$

12. $\ln x - 4\ln y$

Change of Base Formula

Write your answer in CRF and rounded to the 1000th place.

13. $\log_4 5$

14. $\log_2 2.1$

15. $\log_6 3.55$

16. $\log_6 13$

CYU Reflection: *How far can you go: basic, intermediate, or advanced?*

Rate your mastery level!

How confident are you with the skills this CYU covered? Circle the score you would give yourself.

