

Properties of Logarithms I

Apply properties of logarithms to simplify.

1. $\log_4(4^5)$

8. $\log_a(a^{10}) + 10$

2. $12^{\log_{12}(11)}$

9. $\frac{1}{2}\log_b(b^{22})$

3. $\log_2(1)$

10. $25 - \log_m(1)$

4. $\log_{10}(-2)$

11. $\log_4(0)$

5. $\log_7(7^x)$

12. $a^{\log_a(d)} + \log_b(b^c)$

6. $3\log_6(6^9)$

13. $2(\log_4(4^5) + \log_2(2^x))$

7. $4 + 3\log_8(1)$

14. $3^{\log_3(3^2)}$