

Logarithms Formula

1. If $\log_a b = n$ then $a^n = b$

2. $\log_a 1 = 0$

3. $\log_a a = 1$

4. If $\log_a x = \log_a y$ then $x = y$

5. $\log_a mn = \log_a m + \log_a n$

6. $\log_a \frac{m}{n} = \log_a m - \log_a n$

7. $\log_a m^n = n \log_a m$

8. $a^{\log_a x} = x$

9. $\log_a m = \frac{\log_b m}{\log_b a}$

10. $\log_b m = \log_a m \times \log_b a$

11. $\log_b a \times \log_a b = 1$

12. $\log_b a = \frac{1}{\log_a b}$