

↳ AWS of LOGARITHMS

$$1. \log_A(J) = \omega \quad \leftrightarrow \quad A^\omega = J$$

$$2. \log_A(A^\omega) = \omega$$

$$3. A^{\log_A(J)} = J$$

$$4. \log_A(J \cdot K) = \log_A(J) + \log_A(K)$$

$$5. \log_A\left(\frac{J}{K}\right) = \log_A(J) - \log_A(K)$$

$$6. \log_A(J^K) = K \cdot \log_A(J)$$

$$7. \log_C(J) = \frac{1}{\log_A(C)} \cdot \log_A(J)$$