Product to Sum property: $\log_b(x) + \log_b(y) = \log_b(x \cdot y)$

Quotient to Difference property: $\log_b(x) - \log_b(y) = \log_b\left(\dfrac{x}{y}\right)$

Conversion between log and exponential: $b^x = y \Leftrightarrow \log_b(y) = x$

Change of base formula: $\log_b(y) = \dfrac{\log(y)}{\log(b)} = \dfrac{\ln(y)}{\ln(b)}$

Equivalences: $\log_b(x) = \log_b(y) \Leftrightarrow x = y$

Power property: $\log_b(a^x) = x \cdot \log_b(a)$

Inverses: $b^{\log_b(x)} = x = \log_b(b^x)$