

I Logarithms are important functions for solving equations with exponents.

e.g. $128 = 2^{n-1}$ Two types of logarithms can

$$\log(128) = \log(2^{n-1}) \text{ be used } \log_{10}$$

$$\frac{\log(128)}{\log(2)} = \frac{(n-1)\log(2)}{\log(2)} \quad \ln_e$$

$$\frac{\log(128)}{\log(2)} = (n-1)$$

$$\frac{\log(128)}{\log(2)} = n-1$$

$$8 = n //$$

The important rule to remember is

$$\log(x^y) \text{ is } y \log x$$