

More on Logarithms and Exponentials:

1. If $b > 0$ and $b \neq 1$, then the function defined by

$$f(x) = \log_b x$$

where x is any positive real number, is called the **logarithmic function with base b** .

2. $\log_{10} x = \log x$

3. If $x > 0$, $y > 0$, and $b \neq 1$, then $x = y$ if and only if $\log_b x = \log_b y$.

4. After t years the total amount of money accumulated A , compounded n times a year with an interest rate of r is given by

$$A = P \left(1 + \frac{r}{n} \right)^{nt}$$