

General Formulas

Circumference of a circle

$$O = 2 \cdot \pi \cdot r$$

Area of a circle

$$A = \pi \cdot r^2$$

Surface area of a ball

$$A = 4 \cdot \pi \cdot r^2$$

Volume of a ball

$$V = \frac{4}{3} \cdot \pi \cdot r^3$$

Volume of a cylinder (base \cdot height)

$$V = A \cdot h$$

Logarithms

$$\log(a \cdot b) = \log(a) + \log(b)$$

$$\log(a^c) = c \cdot \log(a)$$

$$\lg(a) = d \implies a = 10^d$$

$$\ln(a) = d \implies a = e^d$$