
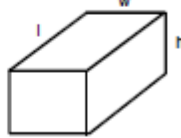

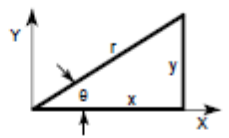


Basic Math / Geometry Review

EXPONENTS	LOGARITHMS	TRIGONOMETRIC FUNCTIONS
$a^x a^y = a^{x+y}$ $a^x / a^y = a^{x-y}$ $(a^x)^y = a^{xy}$ $a^0 = 1$ <p>Example:</p> $\frac{x}{\sqrt{x}} = x x^{-\frac{1}{2}} = x^{(1-\frac{1}{2})} = x^{\frac{1}{2}} = \sqrt{x}$	$\log(xy) = \log x + \log y$ $\log(x/y) = \log x - \log y$ $\log(x^N) = N \log x$ <p>If $z = \log x$ then $x = 10^z$</p> <p>Examples: $\log 1 = 0$ $\log 1.26 = 0.1$; $\log 10 = 1$</p> <p>if $10 \log N = \text{dB\#}$, then $10^{(\text{dB\#}/10)} = N$</p>	$\sin x = \cos(x-90^\circ)$ $\cos x = -\sin(x-90^\circ)$ $\tan x = \sin x / \cos x = 1 / \cot x$ $\sin^2 x + \cos^2 x = 1$

A radian is the angular measurement of an arc which has an arc length equal to the radius of the given circle, therefore there are 2π radians in a circle. One radian = $360^\circ/2\pi = 57.296\dots^\circ$

ELLIPSE	RECTANGULAR SOLID	CYLINDER	ANGLES
 <p>Area = $\pi a b$ Approx circumference = $2\pi \sqrt{\frac{a^2 + b^2}{2}}$</p>	 <p>Area = lw Volume = lwh</p>	 <p>Volume = $\pi r^2 h$ Lateral surface area = $2\pi r h$</p>	 <p>$\sin \theta = y/r$ $\cos \theta = x/r$ $\tan \theta = y/x$ $r^2 = x^2 + y^2$</p>