BASIC GEOMETRIC EQUATIONS

PERIMETER:

a)	Rectangle:	$P = 2(b + h)$	b=base, h=height
b)	Circle (circumference):	$C = 2\pi r$	r=radius

SURFACE AREA:

a)	Rectangle:	$A_r = bh$
b)	Trapezoid:	$A_{trap} = 1/2\ h(b_1 + b_2)$ (bases are parallel)
c)	Triangle:	$A_{tri} = 1/2\ bh$
d)	Circle:	$A_{cir} = \pi r^2$
e)	Right Prism:	A_{box} = sum of all 6 rectangular sides
f)	Cylinder:	$A_{cyl} = 2\pi r^2 + 2\pi rh$
g)	Sphere:	$A_s = 4\pi r^2$
h)	Pyramid:	$A_p = B + 1/2\ p\ell$ ℓ=slant height, p=perimeter, B = area of base
i)	Cone:	$A_{cone} = \pi r^2 + \pi r\ell$

VOLUME:

a)	Right Prism:	$V_{box} = bhw$	w=width
b)	Cylinder:	$V_{cyl} = \pi r^2 h$	
c)	Sphere:	$V_s = 4/3\ \pi r^3$	
d)	Pyramid:	$V_p = 1/3\ Bh$	
e)	Cone:	$V_{cone} = 1/3\ Bh$	

PYTHAGOREAN THEOREM:

$\mathbf{c^2 = a^2 + b^2} \rightarrow c = \sqrt{a^2 + b^2}$, $a = \sqrt{c^2 - b^2}$, $b = \sqrt{c^2 - a^2}$