Cheat Sheet C4

Geometric Formulas

2 Dimensions				3 Dimensions				
		Perimeter	**Area**			**Lateral Area**	**Surface Area**	**Volume**
		distance around the outside (the fence)	*space on the inside (the yard)*			*the area of the sides of an object (bases not included)*	*the total area of the outside of an object*	*the space inside of a container*
Rectangle		$2l + 2w$	l x w	Rectangular Prism			2 x (l x w) of top + 2 x (l x w) of side + 2 x (l x w) of front	area of the Base x height BH
Triangle		$s_1+s_2+s_3$	½ bh	Triangular Prism			bh (of triangle) + (l x w) of side$_1$ + (l x w) of side$_2$ + (l x w) of side$_3$	area of the Base x height BH
Square		4s	s^2	Right Prisms		perimeter of the Base x height Ph	lateral surface area + 2 (area of the Base) $Ph + 2B$	area of the Base x height BH
Circle		$2\pi r$ or πd (Circumference)	πr^2	Cylinder		area of the lateral space (rectangle) $2\pi rh$	lateral surface area + 2 (area of the Base) $2\pi rh + 2\pi r^2$	area of the Base x height $\pi r^2 H$
Parallelogram		$2s_1+2s_2$	bh	Pyramid		½ perimeter of the Base x slant height $\frac{1}{2}Pl$	lateral surface area + area of the Base $\frac{1}{2}Pl + B$	⅓ area of the Base x height $\frac{1}{3}BH$
Trapezoid		$s_1+s_2+s_3+s_4$	$\frac{1}{2}(b_1 + b_2)h$	Cone		Pi x radius x slant height πrl	lateral surface area + area of the Base $\pi rl + \pi r^2$	⅓ area of the Base x height $\frac{1}{3}BH$
				Sphere			$4\pi r^2$	$4/3\pi r^3$

l = length
w = width
b = base of the triangle
h = perpendicular height of the triangle
s = side length

d = diameter
r = radius

H = perpendicular height of the 3 dimensional figure/altitude
l = slant height
P = perimeter
B = area of the base
L = lateral surface area
S = total surface area
V = volume