Topic	Customary/Metric Conversion Facts	
Length	1 in. = 2.540 cm	1 cm ≈ 0.3937 in.
	1 ft ≈ 0.3048 m	1 m ≈ 3.28 ft
	1 yd ≈ 0.9144 m	1 m ≈ 1.094 yd
	1 mi ≈ 1.6093 km	1 km ≈ 0.6214 mi
Weight	1 oz ≈ 28.3 g	1 g ≈ 0.0353 oz
	1 lb ≈ 0.4536 kg	1 kg ≈ 2.205 lb
Capacity	1 qt ≈ 0.9464 L	1 L ≈ 1.057 qt
	1 gal ≈ 3.785 L	1 L ≈ 0.2642 gal
	1 fl oz ≈ 29.574 mL	1 mL ≈ 0.03381 fl oz
Area	$1\,\text{in}^2 \approx 6.4516\,\text{cm}^2$	
	$1\,\text{ft}^2 \approx 929\,\text{cm}^2$	
	$1\,\text{yd}^2 \approx 8{,}361\,\text{cm}^2$	
	1 ha (hectare) = $1\ \text{hm}^2 \approx 2.47$ acres	
	$1\,\text{mi}^2 \approx 2.59\,\text{km}^2$	
Volume	$1\,\text{in}^3 \approx 16.3871\,\text{cm}^3$	
	$1\,\text{ft}^3 \approx 28{,}317\,\text{cm}^3$	
	$1\,\text{yd}^3 \approx 0.7646\,\text{m}^3$	
	$35.3\,\text{ft}^3 \approx 1\,\text{m}^3$	
Temperature	F = 1.8C + 32	$C = \frac{F - 32}{1.8}$
	K = C + 273.15	C = K – 273.15

Area of a regular polygon $A = \frac{1}{2} \times s \times a \times n$ or $\frac{1}{2} \times a \times p$, where a = the length of the apothem, s = the length of a side, p = the perimeter, and n = the number of sides.

Equation of a circle $(x - h)^2 + (y - k)^2 = r^2$, where the Center is (h, k) and the radius is r.

Distance formula $d = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$, where one point is given by the ordered pair (x_1, y_1), and the other point is (x_2, y_2).

Hero's Formula $A = \sqrt{s(s - a)(s - b)(s - c)}$, where $s = \frac{1}{2}(a + b + c)$ for the area of a triangle with sides a, b and c.

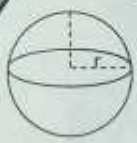
* Area of kite
$A = \frac{1}{2} \cdot d \cdot d'$ (1 diagonal * the other)

* Area of trapezoid
$\frac{1}{2} h(b_1 + b_2)$

Volume & Surface Area

Formula Cheat Sheet

Sphere

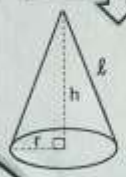


Volume
$\frac{4}{3} \cdot \pi \cdot r^3$

Surface Area
$4 \cdot \pi \cdot r^2$

Surface area is in square units!

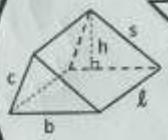
Cone



Volume
$\frac{1}{3} \cdot \pi \cdot r^2 \cdot h$

Surface Area
$\pi \cdot r^2 + \pi \cdot r \cdot \ell$

Triangular Prism



Volume
$(\frac{1}{2} \cdot b \cdot h) \cdot \ell$

Surface Area
$b \cdot h + \ell \cdot s + \ell \cdot b + \ell \cdot c$

Cylinder

Volume
$\pi \cdot r^2 \cdot h$

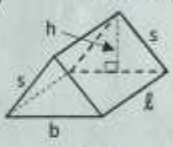
Surface Area
$2 \cdot \pi \cdot r^2 + 2 \cdot \pi \cdot r \cdot h$

Cube

Volume
$s \cdot s \cdot s = s^3$

Surface Area
$6 \cdot s \cdot s = 6 \cdot s^2$

If Isosceles



Volume
$(\frac{1}{2} \cdot b \cdot h) \cdot \ell$

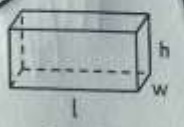
Surface Area
$b \cdot h + 2 \cdot \ell \cdot s + \ell \cdot b$

Rectangular Pyramid

Volume
$\frac{1}{3} \cdot l \cdot w \cdot h$

Surface Area
$l \cdot w + \ell \cdot w + b \cdot l$

Rectangular Prism



Volume
$l \cdot w \cdot h$

Surface Area
$2 \cdot l \cdot w + 2 \cdot l \cdot h + 2 \cdot w \cdot h$

Volume is in cubic units!

* SA of right square pyramid
$\frac{1}{2} p\ell + s^2$

Volume of $= \frac{1}{3} Bh$