Math Formula Sheet

	Common Imperial	**Imperial and SI**	**SI**
Length	1 mile = 1760 yards 1 mile = 5280 feet 1 yard = 3 feet 1 yard = 36 inches 1 foot = 12 inches	1 mile ≈ 1.609 km 1 yard = 0.9144 m 1 foot = 30.48 cm 1 inch = 2.54 cm	1 km = 1000 m 1 m = 100 cm 1 cm = 10 mm
Mass (Weight)	1 ton = 2000 pounds 1 pound = 16 ounces	2.2 pounds ≈ 1 kg 1 pound ≈ 454 g 1 ounce ≈ 28.35 g	1 t = 1000 kg 1 kg = 1000 g
Volume	1 gallon = 4 quarts 1 gallon (UK) ≈ $\frac{6}{5}$ gallons (US) 32 fluid ounces = 1 quart	1.06 quarts (US) ≈ 1 L 0.26 gallons (US) ≈ 1 L 3.52 fluid ounces (UK) ≈ 100 mL 3.38 fluid ounces (US) ≈ 100 mL	
Common Abbreviations	mile = mi yard = yd feet = ' or ft inch = " or in ton = tn pound = lb ounce = oz fluid ounce = fl oz		kilometre = km metre = m centimetre = cm millimetre = mm tonne (metric ton) = t gram = g litre = L millilitre = mL
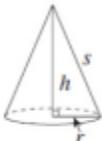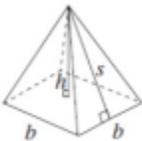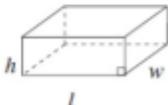
Geometric Figure	Surface Area	Volume
Cylinder	$A_{top} = \pi r^2$ $A_{base} = \pi r^2$ $A_{side} = 2\pi rh$ $SA = 2\pi r^2 + 2\pi rh$	$V = (\text{area of base}) \times h$
Sphere	$SA = 4\pi r^2$ **or** $SA = \pi d^2$	$V = \dfrac{4}{3}\pi r^3$
Cone	$A_{side} = \pi rs$ $A_{base} = \pi r^2$ $SA = \pi r^2 + \pi rs$	$V = \dfrac{1}{3} \times (\text{area of base}) \times h$
Square-Based Pyramid	$A_{triangle} = \dfrac{1}{2} bs \;\; (\text{for each triangle})$ $A_{base} = b^2$ $SA = 2bs + b^2$	$V = \dfrac{1}{3} \times (\text{area of base}) \times h$
Rectangular Prism	$SA = wh + wh + lw + lw + lh + lh$ **or** $SA = 2(wh + lw + lh)$	$V = (\text{area of base}) \times h$
General Right Prism	$SA = \text{the sum of the areas of all the faces}$	$V = (\text{area of base}) \times h$
General Pyramid	$SA = \text{the sum of the areas of all the faces}$	$V = \dfrac{1}{3} \times (\text{area of base}) \times h$