$SA = 2\square + \square + \square + \square + \square$ $V = \left(\dfrac{a+b}{2}\right)\ell$

$SA = 2\left(\dfrac{a+b}{2}\right) + a\ell + b\ell + S_1\ell_1 + S_2\ell_2$

$-OR-$

$SA = (a+b) + a\ell + b\ell + S_1\ell_1 + S_2\ell_2$

Geometric Figure	Surface Area	Volume
Cylinder	$SA = 2\varnothing + \boxed{}$ $SA = 2\pi r^2 + \pi D h$ $-OR-$ $SA = 2\pi r^2 + 2\pi r h$	$V = \pi r^2 h$
RECTANGULAR PYRAMID	$SA = \square + 2\triangle + 2\triangle$ $SA = b_1 \times b_2 + 2\left(\dfrac{b_1 S_1}{2}\right) + 2\left(\dfrac{b_2 S_2}{2}\right)$ $-OR-$ $SA = b_1 b_2 + b_1 S_1 + b_2 S_2$	$V = \dfrac{b_1 b_2 h}{3}$
Cone	$SA = \varnothing + \triangle$ $SA = \pi r^2 + \pi r S$	$V = \dfrac{\pi r^2 h}{3}$
Square-based pyramid	$SA = \square + 4\triangle$ $SA = b^2 + 4\left(\dfrac{bS}{2}\right)$ $-OR-$ $SA = b^2 + 2bS$	$V = \dfrac{b^2 h}{3}$
Rectangular prism	$SA = 2\square + 2\square + 2\square$ $SA = 2hw + 2\ell h + 2\ell w$	$V = \ell w h$
Triangular prism	$SA = 2\triangle + \square + \square + \square$ $\Rightarrow SA = 2\dfrac{bh}{2} + a\ell + b\ell + c\ell$ $\Rightarrow SA = 2\dfrac{bh}{2} + h\ell + b\ell + c\ell$	$V = \dfrac{bh\ell}{2}$

APPRENTICESHIP AND WORKPLACE MATHEMATICS 10

DATA PAGES

UNIT CONVERSION

	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 foot = .3048m	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

Temperature
$C = \dfrac{5}{9}(F - 32)$
$F = \dfrac{9}{5}C + 32$

METRIC

10 mm	1 cm
100 cm	1 m
1000 m	1 km

IMPERIAL

12 in	1 ft
3 ft	1 yard
5280 ft	1 mile
1760yd	1 mile
36 in	1 yard

IMPERIAL TO METRIC

1 inch	2.54 cm
1 foot	30.48 cm
1 foot	0.3048 meter
1 yard	91.44 cm
1 yard	0.9144 meter
1 mile	1.609 km

MASS

1 pound	16 ounces
1 ton (imperial)	2,000 pounds
1 kg	2.2 pounds
1 oz	28.35 grams
1 kg	1000 grams
1 tonne (metric)	1000 kg
1 gram	1000 mg

CAPACITY

1 gallon	3.785 litre
1 gallon	4 quarts
1 quart	32 fluid ounces
1 pint	16 fluid ounces
2 pint	1 quart
1 litre	1000 mL
1000 litres	1 kilolitres

VOLUME TO CAPACITY CONVERSION

1 cm^3	1 millilitre

Temperature

Celcius to Fahrenheit	9/5 x C + 32
Fahrenheit to Celcius	5/9 (F-32)

COOKING CONVERSIONS

1 cup	8 fluid ounces
1 quart	4 cups
1 cup	236.6 mL
1 cup	16 tablespoons
1 tablespoon	3 teaspoons