Mathematics 10C Formula Sheet

Imperial Conversions

12 inches(in)=1 foot(ft)	8 fluid oz(fl. oz.)=1 cup(c)
3 feet (ft)=1 yard(yd)	2 cups(c)=1 pint(pt)
5280 feet(ft)=1 mile(mi)	2 pints(pt)=1 quart(qt)
16 ounces(oz)=1 pound(lb)	4 quarts(qt)=1 gallon(gal)
2000 pounds(lb)=1 ton(T)	

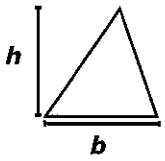
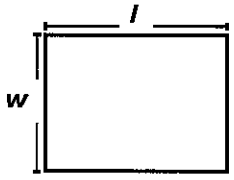
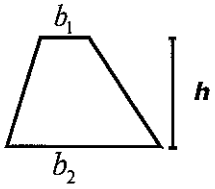
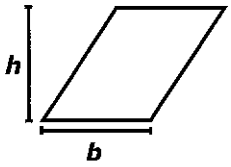
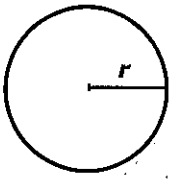
Metric Conversions

Kilo, Hecta, Deca, {grams, litres, metres} deci, centi, milli

1 kilometre(km)=1000 metres(m)	1 kilogram(kg)=1000 grams(g)	1 Litre(L)=1000 millilitres(ml)
1 metre(m)=100 centimetres(cm)	1 gram(g)=1000 milligrams(mg)	
1 metre(m)=1000 millimetres(mm)		

Metric to Imperial Conversions

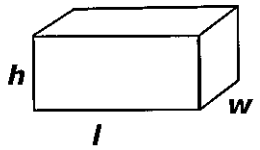
1 inch (in)=2.54 centimetres(cm)	1 metre(m)=3.281 feet(ft)
1 foot(ft)=30.48 centimetres(cm)	1 centimetre(cm)=0.397 inches(in)
1 yard(yd)=0.9144 metres(m)	1 kilometre(km)=0.6214 miles(mi)
1 millimetre(mm)=0.0394 inches(in)	1 mile(mi)=1.609 kilometres(km)

2-Dimensional Shape	Formula
Triangle 	$Area = \frac{1}{2}bh$
Rectangle 	$Area = lw$
Trapezoid 	$Area = \frac{1}{2}(b_1 + b_2)h$
Parallelogram 	$Area = bh$
Circle 	$Area = \pi r^2$ $Circumference = 2\pi r$

Surface Area and Volume

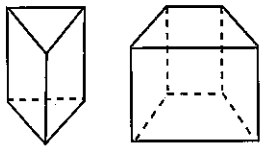
3 Dimensional Figure

Rectangular Prism



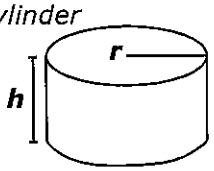
$$V = lwh = length \times width \times height$$

General Prisms



$$V = Bh = \text{area of base} \times \text{height}$$

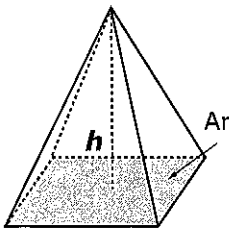
Right Circular Cylinder



$$V = \pi r^2 h$$

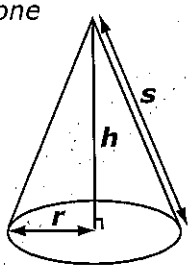
$$SA = 2\pi r^2 + 2\pi rh$$

Right Pyramid



$$V = \frac{1}{3}Bh = \frac{1}{3} \times \text{area of base} \times \text{height}$$

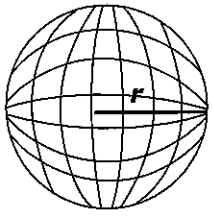
Right Circular Cone



$$V = \frac{1}{3}Bh = \frac{1}{3} \times \text{area of base} \times \text{height}$$

$$SA = \pi r^2 + \pi rs$$

Sphere



$$V = \frac{4}{3}\pi r^3$$

$$SA = 4\pi r^2$$

Slope of a Line

$$m = \frac{rise}{run} = \frac{y_2 - y_1}{x_2 - x_1}$$

Slope-Intercept Equation for a Line

$$y = mx + b$$

Point-Slope Equation for a Line

$$y - y_1 = m(x - x_1)$$

Basic Trigonometric Ratios

$$\cos\ \theta = \frac{\text{adjacent}}{\text{hypotenuse}}$$

$$\sin\ \theta = \frac{\text{opposite}}{\text{hypotenuse}}$$

$$\tan\ \theta = \frac{\text{opposite}}{\text{adjacent}}$$

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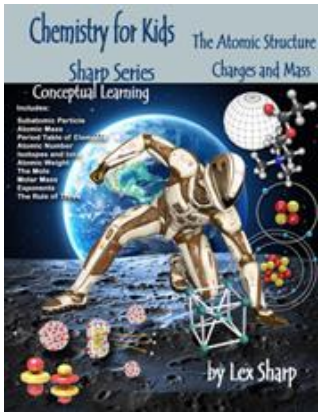

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