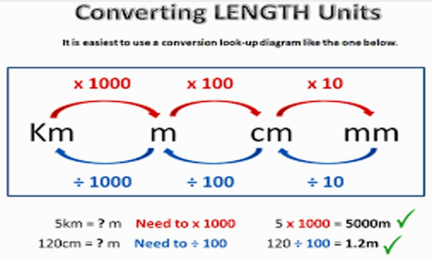
Cheatography

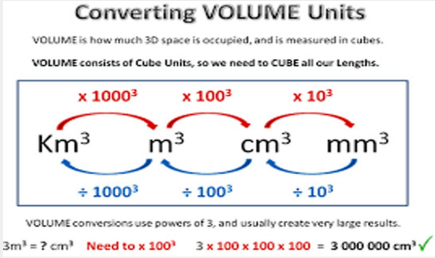
Year 9 Mathematics Cheat Sheet

by Phoebe Zhang (Phoebe12) via cheatography.com/30133/cs/16011/

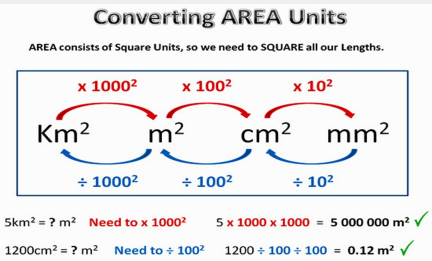
Length



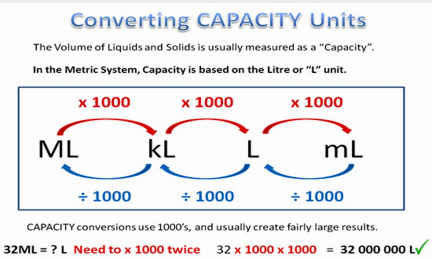
Volume



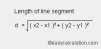
Area



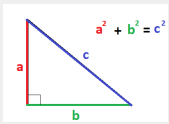
Capacity



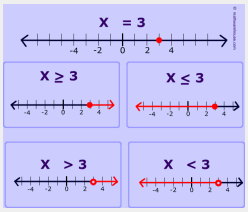
Length of Segment



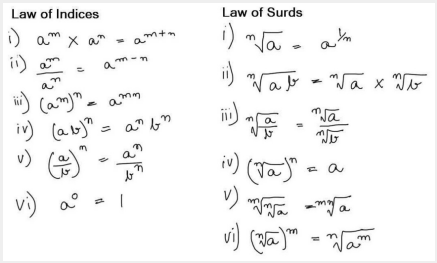
Pythagorean Theorem



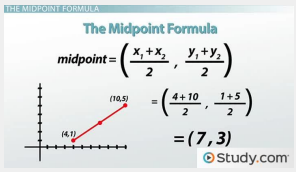
Inequalities



Laws of Indices and Surds



Midpoint



Area

Trapezoid	A + (b1 + b2 ÷ 2)*h

Volume

Cube	$V = s^3$
Cuboid	V = lwh
Prism	V = Bh
Cylinder	$V = \pi r^2 h$
Hollow Cylinder	$V = \pi R^2 h - \pi r^2 h$
Cone	$V = 1/3 * \pi r^2 h$
Pyramid	V = 1/3*Bh
Sphere	$V = 4/3 * \pi r^3$
Hemisphere	$V = 2/3 * \pi r^3$

Surface Area

Cube	$TSA = 6s^2$
Cuboid	TSA = 2(lw + lh + wh)
Prism	TSA = 2B + ph
Cylinder	$TSA = 2\pi^2 + 2\pi rh$
Hollow Cylinder	$TSA = 2\pi rh + 2\pi Rh + 2(\pi R^2 - \pi r^2)$
Cone	$TSA = \pi r^2 + \pi rs$
Regular Pyramid	TSA = area of base + 1/2*ps
Square Pyramid	$TSA = b^2 = 2bs$
Sphere	$TSA = 4\pi r^2$
Hemisphere	$TSA = 3\pi r^2$

B = area of base
p = perimeter of base
h = height
R = radius of the outer surface
r = radius of the inner surface
s = slant height
b = length of the base

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Chapter 4 Summary

The gradient of a horizontal line (y = ...) has a gradient of zero.

The gradient of a vertical line (x = ...) has an undefined gradient.

Perpendicular lines are at right angles. Their gradients m^1 and m^2 are such that $m^1m^2 = -1$, i.e. $m^2 = -1 \div m^1$

y = mx passes through the origin, substitute x = 1 to find another point.

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