Geometry

Data Sheet 1

Emirate Standardized Test EmSaT 2016©

Perimeter (P) and Circumference (C):

Quantity	*Formula*
Perimeter of a square	$P = 4d$
Perimeter of a quadrilateral	$P = s_1 + s_2 + s_3 + s_4$
Perimeter of a triangle	$P = s_1 + s_2 + s_3$
Perimeter of Trapezoid	$P = \frac{h(b_1 + b_1)}{2}$
Circumference of a circle	$C = 2\pi r$

Volume (V):

Quantity	*Formula*
Volume of a cube	$V = s^3$
Volume of a rectangular prism	$V = lwh$
Volume of a right cylinder	$V = \pi r^2 h$
Volume of a sphere	$V = \frac{4}{3}\pi r^3$
Volume of a cone	$V = \pi r^2 \frac{h}{3}$
Volume of a rectangular pyramid	$V = \frac{lwh}{3}$
Volume of a triangular prism	$V = \frac{bhl}{2}$

Area (A):

Quantity	*Formula*
Area of square	$A = s^2$
Area of a rectangle	$A = l * w$
Area of a circle	$A = \pi r^2$
Area of a triangle	$A = \frac{bh}{2}$
Area of a parallelogram	$A = bh$
Area of trapezoid	$A = \frac{a+b}{2}h$
Area of a rhombus	$A = \frac{pq}{2}$
Area of Ellipse	$A = \pi r_1 r_2$
Area of Cube	$A = 6s^2$

Surface area (SA):

Quantity	*Formula*
Surface area of rectangular prism	$SA = 2(wl + hl + hw)$
Surface area of a cube	$SA = 6s^2$
Surface area of cylinder	$SA = 2\pi rh + 2\pi r^2$
Surface area of a sphere	$SA = 4\pi r^2$
Surface area of cone	$SA = \pi rs$

Units Conversion:

1 cm = 10 mm 1 m = 100 cm 1 m = 1000 mm 1 km = 1000 m 1 ft = 12 in 1 yard = 3 ft 1 mile = 5280 ft 1 in = 2.54 cm 1 yd = 0.914 m 1 km = 0.621 miles	1 g = 1000 mg 1 kg = 1000 g 1 mg = 1000 µg 1 lb = 16 oz 1 kg = 2.20 lb 454 g = 1 lb 1 ton = 907.2 kg	1 mL = 1 cm^3 1 dL = 100 mL 1 L = 10 dL 1 L = 1000 mL 1 pint = 2 cups 1 qt = 4 cups 1 gallon = 4 qts 946 mL = 1 qt 1 L = 1.06 qt	K = °C + 273.15 °C = (F - 32) x 5/9 1 cal = 4.184 J	1 psi = 0.068 atm 1 atm = 101.325 kPa 1 atm = 760 mmHg 1 atm = 1.01325 bar 1 mmHg = 1 torr