

Mathematics in Grade 8 – Formula Sheet



Measurement			
Length	$1 \text{ km} = 1000 \text{ m}$	$1 \text{ m} = 100 \text{ cm}$	$1 \text{ cm} = 10 \text{ mm}$
Area		$1 \text{ m}^2 = 10000 \text{ cm}^2$	
Volume		$1 \text{ m}^3 = 1000000 \text{ cm}^3$	
Mass	$1 \text{ kg} = 1000 \text{ g}$		
Capacity	$1 \text{ L} = 1000 \text{ mL}$		

2-D Geometric Shapes			
Name	Diagram	Perimeter (P)	Area (A)
Triangle b = base h = height		$P = a + b + c$	$A = \frac{b \times h}{2}$
Rectangle		$P = 2l + 2w$	$A = l \times w$
Square		$P = 4a$	$A = a \times a$
Parallelogram b = base h = height		$P = 2a + 2b$	$A = b \times h$
Circle d = diameter r = radius		$C = 2\pi r$	$A = \pi r^2$

3-D Geometric Solids			
Name	Diagram	Surface Area (SA)	Volume (V)
Right Cylinder		$SA = 2\pi r^2 + 2\pi rh$	$V = (\text{area of the base}) \times h$
General Right Prism		$SA = \text{the sum of the area of all faces}$	$V = (\text{area of the base}) \times h$

Curved Surface Area of a cylinder = the circumference of the base \times h