

GCSE Formulae to Remember

Area of a Circle	$A = \pi r^2$
Circumference of a Circle	$C = 2\pi r$ or $C = \pi d$
Area of a Sector	$A = \frac{\theta}{360} \times \pi r^2$
Arc Length	$C = \frac{\theta}{360} \times 2\pi r$ or $C = \frac{\theta}{360} \times \pi d$
Volume of a Prism	Area of Cross Section x Length
Volume of a Pyramid	$\frac{\text{Volume of Prism}}{3}$
Speed, Density and Pressure	
Pythagoras (Long Side)	Square Square Add Square Root
Pythagoras (Short Side)	Square Square Subtract Square Root
SOH CAH TOA	
Sine Rule (Length)	$\frac{a}{\sin(A)} = \frac{b}{\sin(B)}$
Sine Rule (Angle)	$\frac{\sin(A)}{a} = \frac{\sin(B)}{b}$
Cosine Rule (Length)	$a^2 = b^2 + c^2 - 2bc \cos(A)$
Cosine Rule (Angle)	$\cos(A) = \frac{b^2 + c^2 - a^2}{2bc}$
Area of any Triangle	$A = \frac{1}{2} ab \sin(C)$
The Quadratic Formula	$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$
Trig (Sin Cos Tan) Exact Values	
Equation of a Line	$y = mx + c$
Gradient between 2 points	$\frac{y_2 - y_1}{x_2 - x_1}$
Midpoint of 2 points	$\frac{x_2 + x_1}{2}, \frac{y_2 + y_1}{2}$