# IGCSE Mathematics

## Formula Sheet

## Area & Perimeter

Area of triangle $\quad A = \dfrac{1}{2}\,bh$

Area of circle $\qquad A = \pi r^2$

Circumference $\qquad C = 2\pi r$

## Algebra

Quadratic formula $\quad x = \dfrac{-b \pm \sqrt{b^2 - 4ac}}{2a}$

## Surface Area

Cylinder (curved) $\quad A = 2\pi rh$

Cone (curved) $\qquad A = \pi rl$

Sphere $\qquad\qquad A = 4\pi r^2$

## Trigonometry

Sine rule $\qquad\qquad \dfrac{a}{\sin A} = \dfrac{b}{\sin B} = \dfrac{c}{\sin C}$

Cosine rule $\qquad\quad a^2 = b^2 + c^2 - 2bc\cos A$

Area of triangle $\quad A = \dfrac{1}{2}\,ab\sin C$

## Volume

Prism $\qquad V = A_{\text{base}} \times l$

Pyramid $\quad V = \dfrac{1}{3}\,A_{\text{base}}\,h$

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

Cone $\qquad V = \dfrac{1}{3}\,\pi r^2 h$

Sphere $\qquad V = \dfrac{4}{3}\,\pi r^3$