# Formulae sheets

**Area of trapezium** = $\frac{1}{2}(a+b)h$
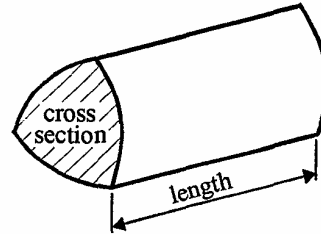


**Volume of prism** = area of cross-section × length
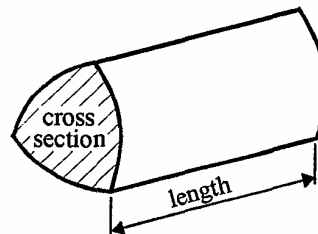
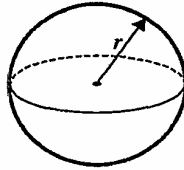EDEXCEL

GCSE Mathematics

Formulae sheet — Higher tier
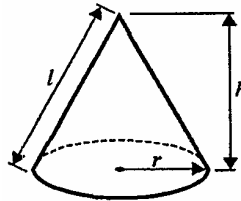
**Volume of prism** = area of cross-section × length

**Volume of sphere** = $\frac{4}{3}\pi r^3$
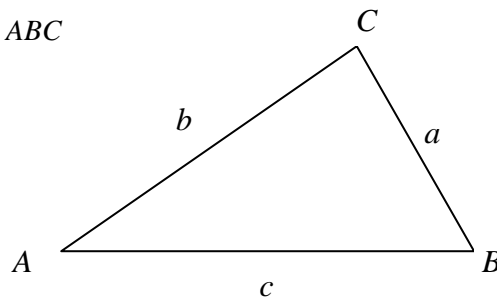
**Surface area of sphere** = $4\pi r^2$

**Volume of cone** = $\frac{1}{3}\pi r^2 h$

**Curved surface area of cone** = $\pi r l$

**In any triangle** $ABC$

**Sine Rule**: $\dfrac{a}{\sin A} = \dfrac{b}{\sin B} = \dfrac{c}{\sin C}$

**Cosine Rule**: $a^2 = b^2 + c^2 - 2bc\cos A$

**Area of a triangle** = $\frac{1}{2}ab\sin C$

**The Quadratic Equation**

The solutions of $ax^2 + bx + c = 0$, where $a \neq 0$, are given by $x = \dfrac{-b \pm \sqrt{(b^2 - 4ac)}}{2a}$