

**Paper Reference 4MA1/2H  
Pearson Edexcel  
International GCSE**

# **Mathematics A**

**PAPER: 2H**

**Higher Tier  
(Calculator)**

## **Formulae Pages**

**DO NOT RETURN THIS  
FORMULAE BOOKLET WITH  
THE QUESTION PAPER.**

**V68798RA**

# Arithmetic series

Sum to  $n$  terms,  $S_n = \frac{n}{2} [2a + (n - 1)d]$

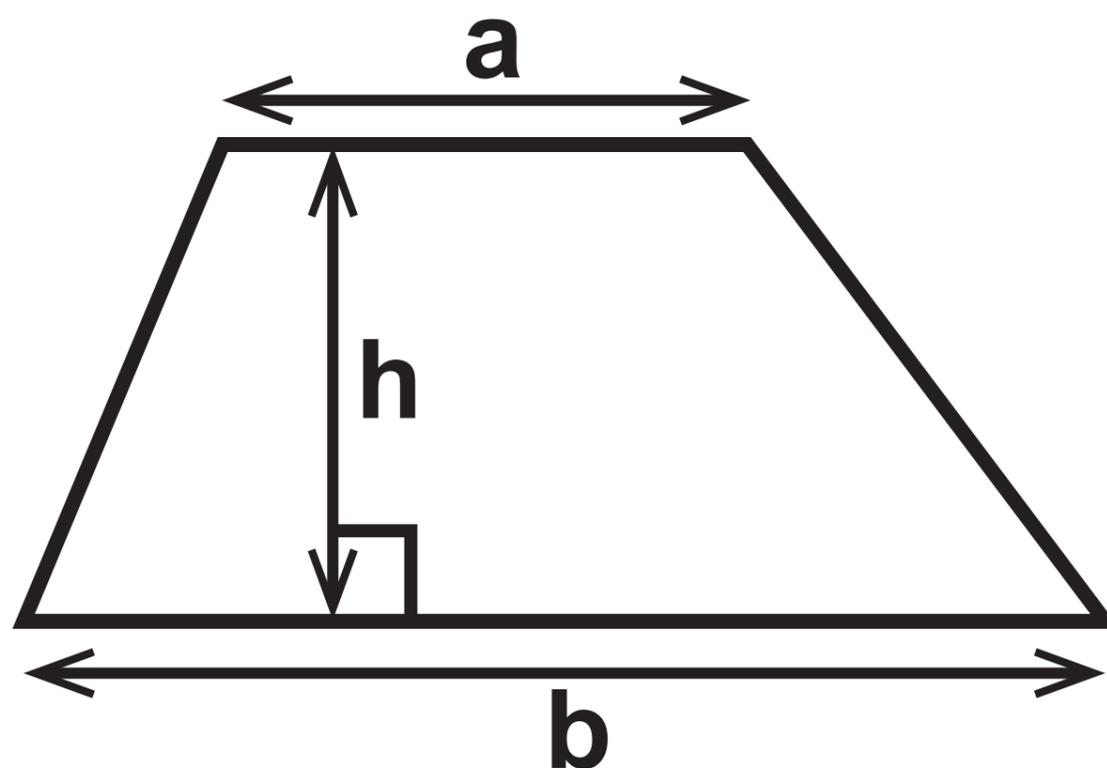
## The quadratic equation

The solutions of  $ax^2 + bx + c = 0$

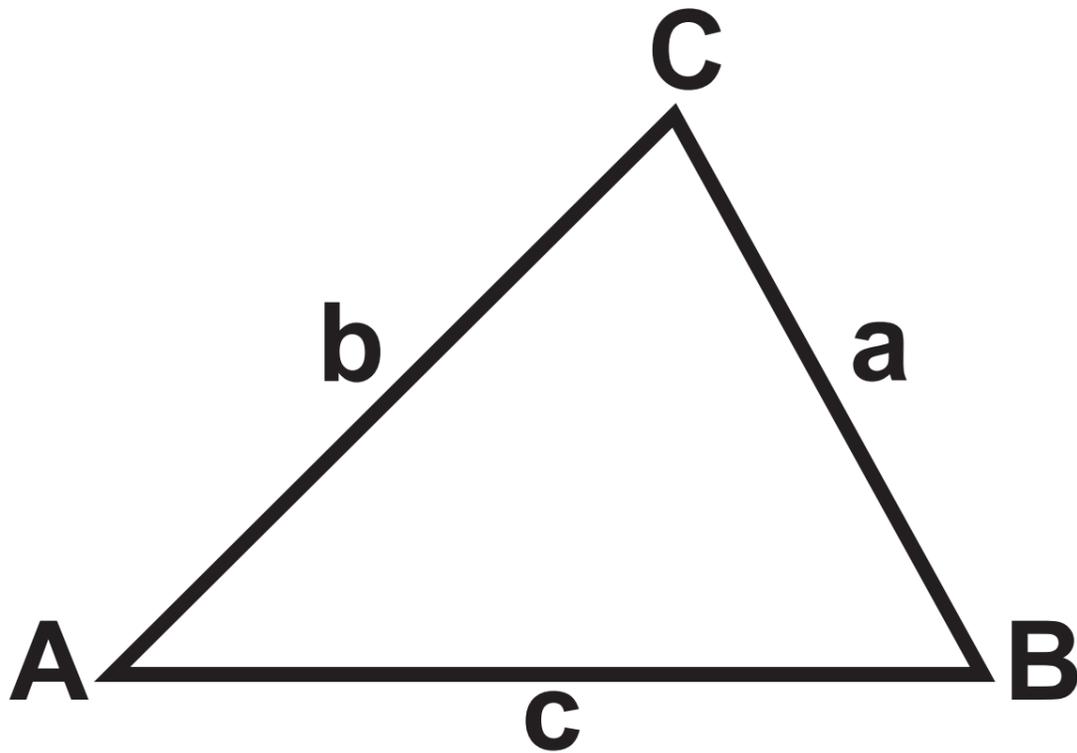
where  $a \neq 0$  are given by:

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

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



# Trigonometry



**In any triangle ABC**

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

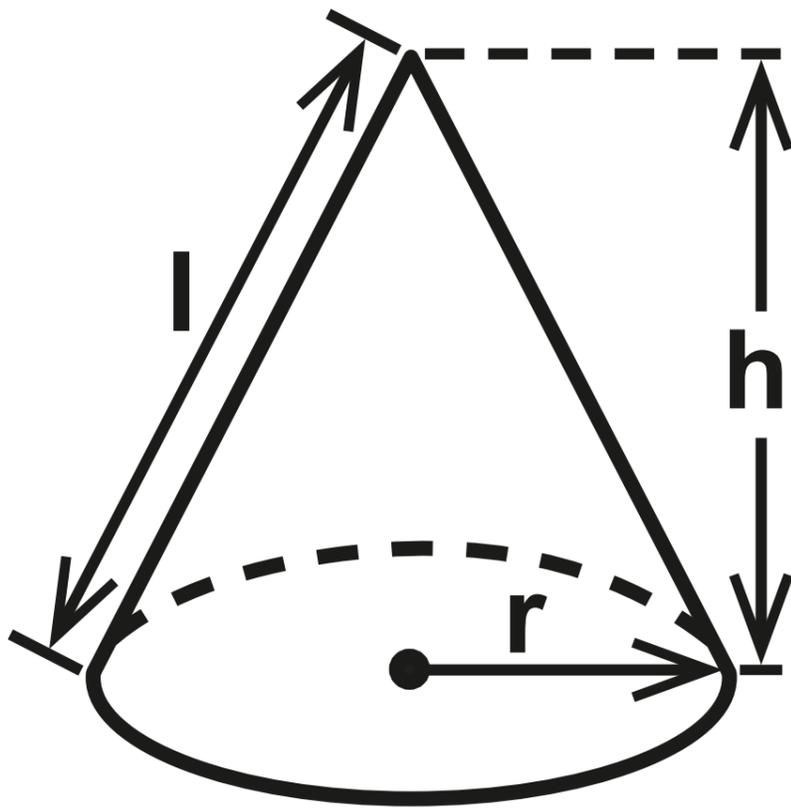
**Cosine Rule**  $a^2 = b^2 + c^2 - 2bc \cos A$

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

**Turn over**

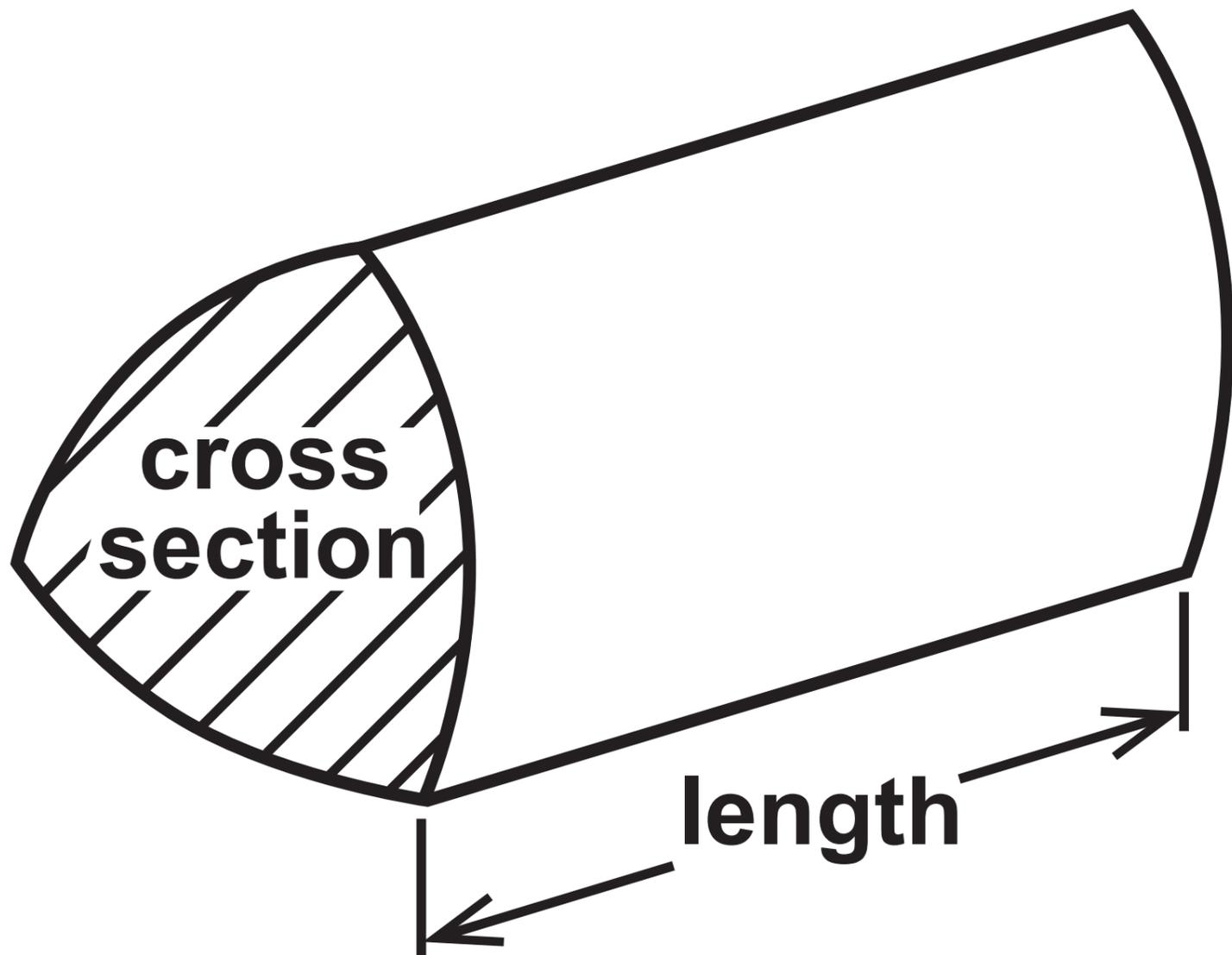
$$\text{Volume of cone} = \frac{1}{3} \pi r^2 h$$

$$\text{Curved surface area of cone} = \pi r l$$



# Volume of prism

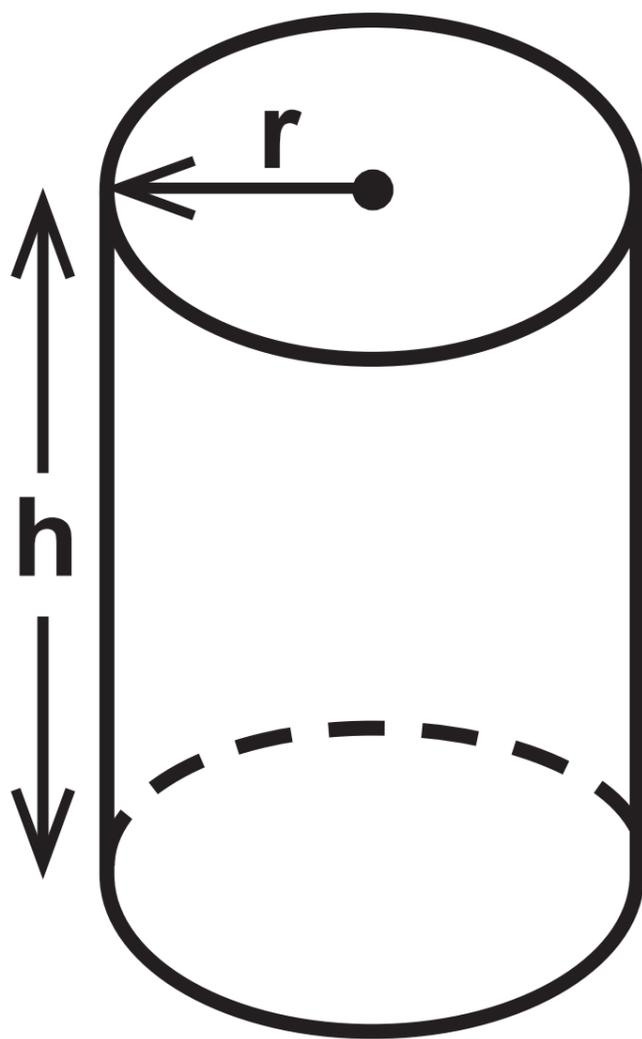
= area of cross section  $\times$  length



Turn over

**Volume of cylinder =  $\pi r^2 h$**

**Curved surface area of  
cylinder =  $2\pi r h$**



$$\text{Volume of sphere} = \frac{4}{3} \pi r^3$$

$$\text{Surface area of sphere} = 4\pi r^2$$

