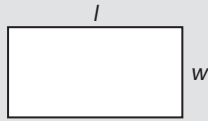


Pearson Edexcel GCSE (9–1) Mathematics

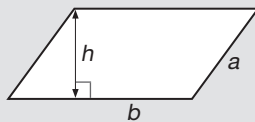
Foundation: need-to-know formulae

Areas

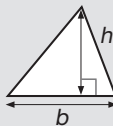
$$\text{Rectangle} = l \times w$$



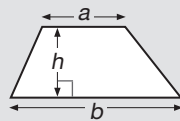
$$\text{Parallelogram} = b \times h$$



$$\text{Triangle} = \frac{1}{2} b \times h$$

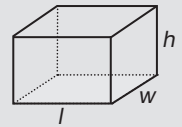


$$\text{Trapezium} = \frac{1}{2} (a + b)h$$

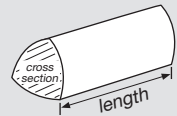


Volumes

$$\text{Cuboid} = l \times w \times h$$



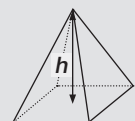
$$\text{Prism} = \text{area of cross section} \times \text{length}$$



$$\text{Cylinder} = \pi r^2 h$$



$$\text{Volume of pyramid} = \frac{1}{3} \times \text{area of base} \times h$$

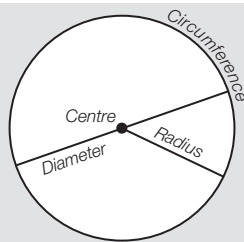


Circles

$$\text{Circumference} = \pi \times \text{diameter}, C = \pi d$$

$$\text{Circumference} = 2 \times \pi \times \text{radius}, C = 2\pi r$$

$$\text{Area of a circle} = \pi \times \text{radius squared}, A = \pi r^2$$



Compound measures

Speed

$$\text{speed} = \frac{\text{distance}}{\text{time}}$$



Density

$$\text{density} = \frac{\text{mass}}{\text{volume}}$$



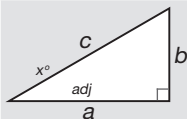
Pressure

The formula for pressure does not need to be learnt, and will be given within the relevant examination questions.

Pythagoras

Pythagoras' Theorem

For a right-angled triangle,
 $a^2 + b^2 = c^2$



Trigonometric ratios (new to F)

$$\sin x^\circ = \frac{\text{opp}}{\text{hyp}}, \cos x^\circ = \frac{\text{adj}}{\text{hyp}}, \tan x^\circ = \frac{\text{opp}}{\text{adj}}$$

