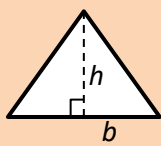
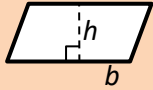


For GCSE (9-1) Mathematics, all students should know...



Area of triangle = $\frac{1}{2}bh$

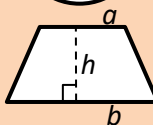


Area of parallelogram = bh

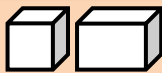


Circumference of circle = $\pi d = 2\pi r$

Area of circle = πr^2



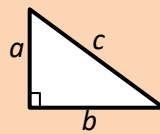
Area of trapezium = $\frac{1}{2}(a+b)h$



Volume of cuboids =
length \times width \times height

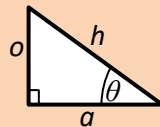


Volume of cylinders or prisms =
length \times area of cross section



For right-angled triangles, label the hypotenuse c & the other sides a and b

Pythagoras' theorem $a^2 + b^2 = c^2$



For right-angled triangles, label the hypotenuse h , the side adjacent to the angle a & the side opposite the angle o

sin $\theta = \frac{o}{h}$ **cos** $\theta = \frac{a}{h}$ **tan** $\theta = \frac{o}{a}$

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

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

Compound interest where P is principal amount

Amount = $P \left(1 + \frac{r}{100}\right)^n$ r is interest rate
 n is times interest applied

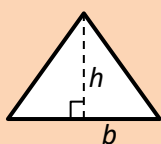
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GCSE (9-1)

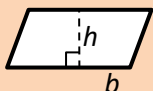
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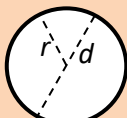
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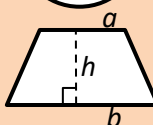


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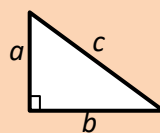
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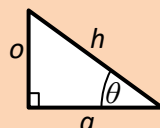


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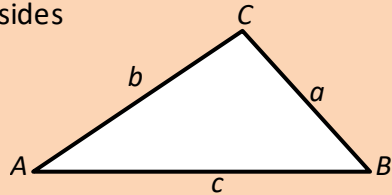
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For GCSE (9-1) Mathematics, Higher tier students should also know...

In any triangle ABC where a, b and c are the lengths of the sides



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

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

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

The quadratic formula

The solutions of $ax^2 + bx + c = 0$ where $a \neq 0$

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

Probability

$$P(A \text{ and } B) = P(A \text{ given } B) P(B)$$

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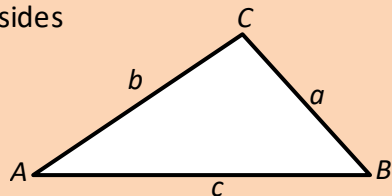
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GCSE (9-1)

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