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GCSE 2018/2019

MATHEMATICS FORMULAE

Dear Students,

For your GCSE Mathematics exam, you will have to remember lots of formulae. You will have covered these in class and will have used them over and over again to solve problems.

Make sure you have learnt these all thoroughly as you will need the correct formulae in order to answer the questions fully.

Here you will find a list of the ones you need for the foundation papers and the higher papers. Any formulae that are not listed here will be given to you in the exam next to the question.

Good luck and all the very best.

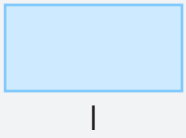
From the Maths team.

GCSE 9-1
Mathematics Formulae - Foundation

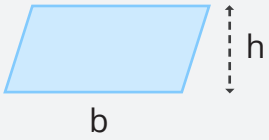
Formulae you NEED to remember

AREAS

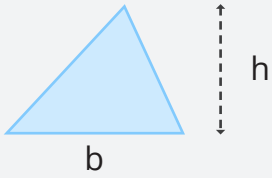
Rectangle = l x w



Parallelogram = b x h



Triangle = $\frac{1}{2}$ b x h



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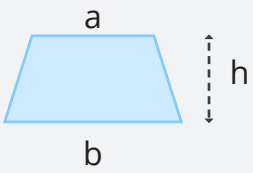
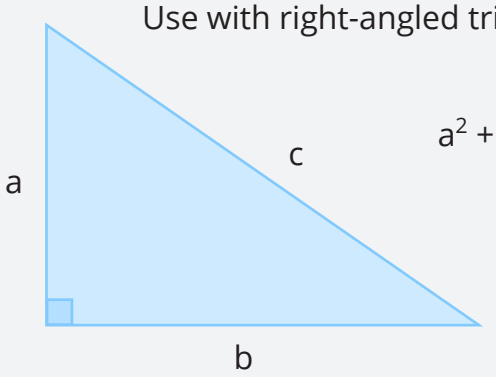


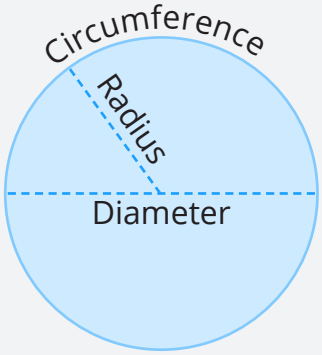
PYTHAGORAS THEOREM

Use with right-angled triangles



$a^2 + b^2 = c^2$

CIRCLES



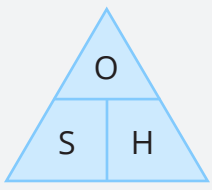
Area = πr^2

Circumference = π x diameter = π d

Circumference = 2 x π x radius = 2 π r

TRIGONOMETRY

Remember - SOH CAH TOA



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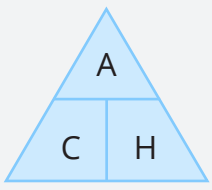

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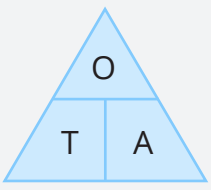

opp = Tan x adj

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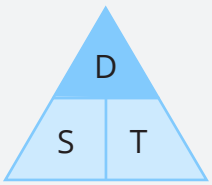
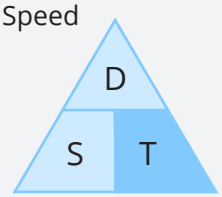
COMPOUND MEASURES

Distance = Speed x Time



$$\text{Time} = \frac{\text{Distance}}{\text{Speed}}$$



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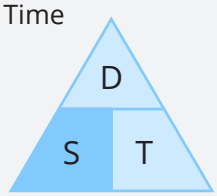
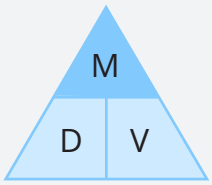


mass = Density x Volume



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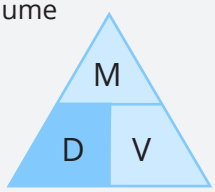

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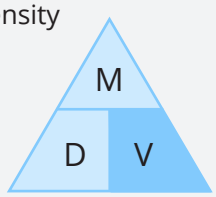

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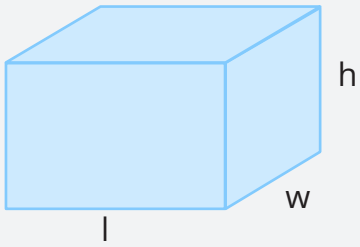

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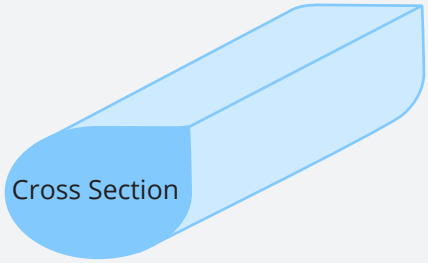
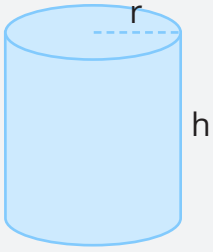
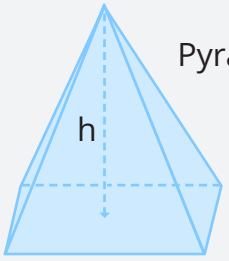


Prism = area of cross section x length



Cylinder = $\pi r^2 h$



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

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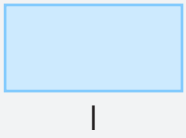
GCSE 9-1
Mathematics Formulae - Higher

Formulae you NEED to remember

AREAS

Rectangle = l x w



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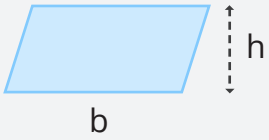

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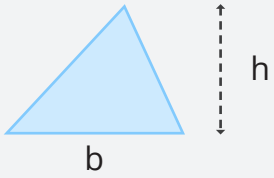

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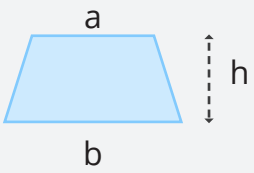

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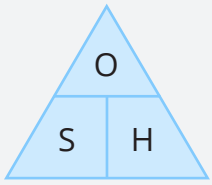

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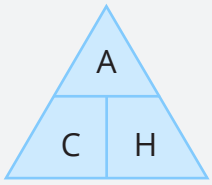

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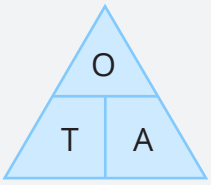

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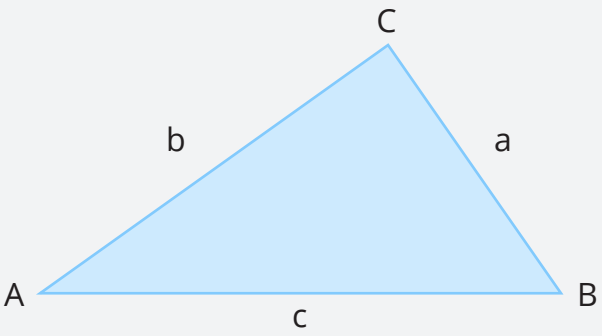
Sine Rule $\frac{a}{\text{Sin A}} = \frac{b}{\text{Sin B}} = \frac{c}{\text{Sin C}}$

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

Triangle = $\frac{1}{2}$ ab Sin C



QUADRATIC EQUATIONS

The solution to $ax^2 + bx + c = 0$ Where x = $\frac{-b + \sqrt{b^2 - 4ac}}{2a}$

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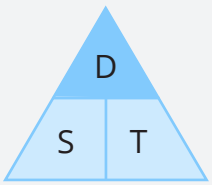

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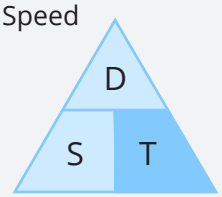

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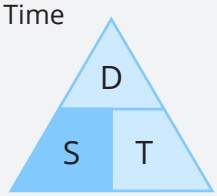

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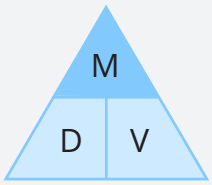

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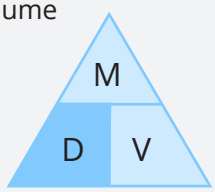

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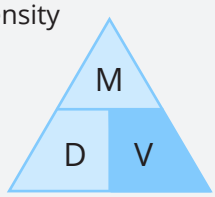

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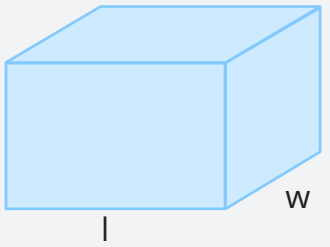

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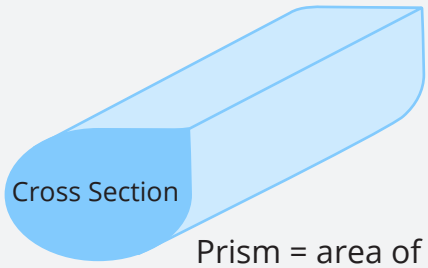

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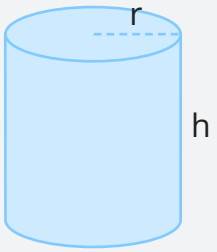

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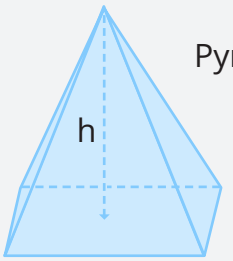

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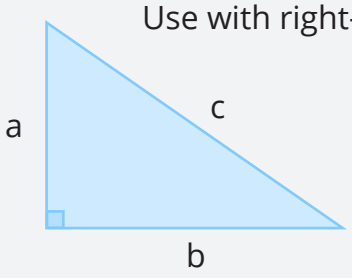

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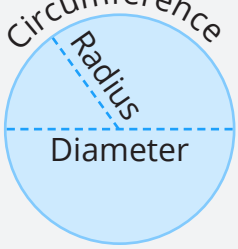

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