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Y9

Information

Evening

Mathematics

October 2018

- May aim:
- To provide information about the GCSE in maths
- To enlighten you on maths in Y9 at Eckington School.
- Advise on how to support your son or daughter.

Maths GCSE

- The exam board we use is Edexcel
- It consists of two tiers,
foundation and higher.
- The exam comprises of three papers,
the first is non-calculator and the other
two are where a calculator is allowed.
- Grades available ...
on the foundation tier are 1 - 5.
on the higher tier are 4 - 9.

The maths GCSE will require students to be able to ...

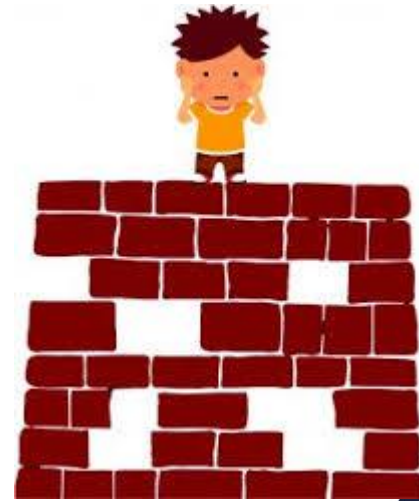
	Foundation	Higher
• Use and apply standard techniques.	50%	40%
• Reason, interpret and communicate mathematically.	25%	30%
• Solve problems within mathematics and in other contexts.	25%	30%

Missing bricks, vertically or horizontally.

Crumbling cement between the bricks.

These things will make the wall shaky or even fall down.

- Missing concepts
- Incomplete understanding
- Missing connections
- Misconceptions



- In lessons we are working towards developing the skills required.

- Mastery of key skills
- Using and reading the notation
- Retention and recall
- Success in applying maths
- Problem solving skills
- Embracing challenge

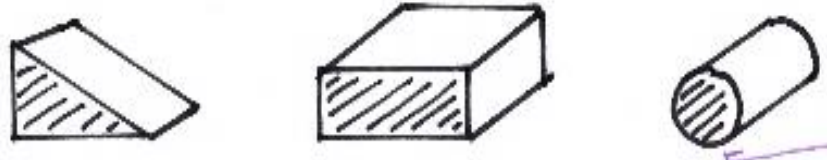
Developing Good Practice.

Annotate notes.

Show all methods.

Address problems straight away.

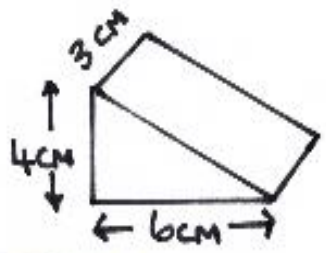
Check the question carefully, does it want the volume or the surface area?



A prism has the same cross-sectional (CSA) area all the way through the shape.

Volume = CSA × length

Area of a triangle is $\frac{1}{2} \times \text{base} \times \text{height}$.
Remember, to halve your answer



$$\text{CSA} = \frac{1}{2} \times 4 \times 6$$

$$= 12 \text{ cm}^2$$

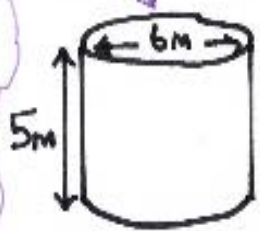
Volume = CSA × length

$$V = 12 \times 3$$

$$V = 36 \text{ cm}^3$$

Volume is cm^3 ← cubed.

Take care!
This is the diameter, not radius.



$$\text{CSA} = \pi \times 3^2$$

$$= 28.27433388 \text{ m}^2$$

← Area circle = πr^2

Imagine running through a tunnel that does not change - the shape you run through is the cross-sectional area (CSA).

Volume = CSA × length

$$V = 28.27433388 \times 5$$

$$V = 141.3716694 \text{ m}^3$$

$$V = 140 \text{ m}^3 \text{ (2sf)}$$

Always use the full calculator display (FCD)

Remember the units

Round the answer.

- We are using various resources and styles of activity in class and for homework.
- There will be three main and three mini assessments throughout the year.

Name _____

Year 11 Assessment 1

60 min 43 marks

Question Number		Maths Watch Clip Number	To be able to
1	6	211	Solve a quadratic simultaneous equation.
2	6	208	Find the equation of a tangent to a circle.
3	6	96, 98, 161, 194, 195	Recognise graphs from their equation.
4	A	195a	Understand trigonometric graphs.
5	6	196b	Sketch transformations of trigonometric graphs.
6a	R	196a	Sketch a transformation of a function.
6b			Find the equation of a transformed function.
7	A	204	Calculate with conditional probability.

The grade of this work 8 Achieved grade of this work 7= Attitude to learning AL

To improve you need to:

Investigate the effect of adding or multiplying within and outside of the function to enable you to determine more successfully how a trigonometric graph will change from its basic form.

Do practice using fractions when the numerator or denominator is a surd as the usual fraction rules still apply. Remember what you do when you divide a fraction by a fraction.

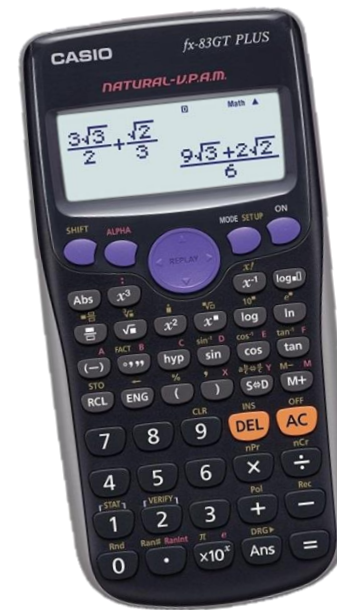
Well done, I can see you have made progress particularly in quadratic sequences.

- Working well in class and at home is a must but students need to take responsibility for revising from **now**.

- Set time to work on maths each week beyond the homework set.
- Mini testing.
- Make the work you do count.

Scientific Calculator

*Bring to every lesson.
Learn how to use yours.
They do not all work in
the same way.*



During Y9 the work begins in earnest.

Struggle 😊

Difficult 😊

Wrong 😊

Settling for less 😞

Easy 😞

Happy if all correct 😞

We have begun to help your son/daughter in their journey towards success in Y9.

This will continue as your child develops their knowledge and ability in maths over Y10 and Y11.

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