

Year 11 Revision Information Sheet

GCSE MATHEMATICS 1-9

Exam Dates Summer 2019

- Thursday 21th May am - Non Calculator (1 hour 30 mins)
- Thursday 6th June am – Calculator (1 hour 30 mins)
- Tuesday 11th June am – Calculator (1 hour 30 mins)

EDEXCEL code 1MA1

Higher Tier Grades 4-9

Foundation Tier Grades 1-5

Revision Websites

- **NEW Mathswatch** <https://vle.mathswatch.co.uk>
New and improved Mathswatch. Each student has their personal login, but here is a standard login.
User Name: **student1 (to 10)@etone** Password: **Etone100**
Access to Video and worksheets
- **Mymaths** www.mymaths.co.uk
Use the lessons to refresh your knowledge. There are Boosters for particular grades.
- **Dr Frost Maths** www.dr frostmaths.com
Each student has their personal login. Use this for topic revision, questions and test.
- **Just Maths** <https://online.justmaths.co.uk/>
User Name: **EtoneStudent** Password: **Etone**
Access to video tutorials and worksheets of common exam questions.
- **Corbett Maths** <http://corbettmaths.com/>
Worksheets, Videos aimed at all grades. No log in required.
- **MathedUp** <http://www.mathedup.co.uk/classes/10n2/gcse-maths-takeaway/>
Worksheets, Videos aimed at all grades. No log in required.

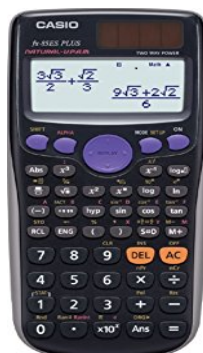
IF YOU HAVE LOST OR MISPLACED YOUR PASSWORD OR LOGIN ID – PLEASE SEE THE MATHS DEPT.

Mathematics Mock Exam

Monday 26th March

Thursday 29th March


Tuesday 17th April



Don't forget your
**SCIENTIFIC
CALCULATOR!**

Areas

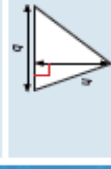
Rectangle = $l \times w$



Parallelogram = $b \times h$



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

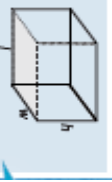


Trapezium = $\frac{1}{2}(a + b)h$



Volumes

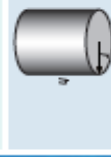
Cuboid = $l \times w \times h$



Prism = area of cross section \times length



Cylinder = $\pi r^2 h$



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



Circles

Circumference = $\pi \times$ diameter, $C = \pi d$

Circumference = $2 \times \pi \times$ radius, $C = 2\pi r$

Area of a circle = $\pi \times$ radius squared $A = \pi r^2$

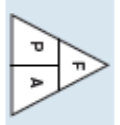
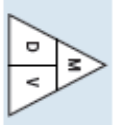
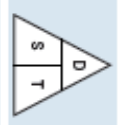


Compound measures

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

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

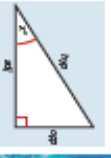
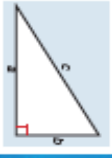
Pressure = $\frac{\text{force}}{\text{area}}$



Pythagoras

Pythagoras' Theorem

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



Trigonometric ratios (near to F)

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

Quadratic equations

The Quadratic Equation

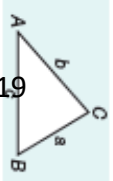
The solutions of $ax^2 + bx + c = 0$, where $a \neq 0$, are given by $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$

Trigonometric formulae

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 = $\frac{1}{2} ab \sin C$



Foundation tier formulae

Higher tier formulae

The language of your Maths exam!

Estimate

Don't work out exactly! Round the numbers, then tell the answer.

Estimate 4.7×6.2
Answer: $5 \times 6 = 30$

Simplify

Collect like terms together

Simplify $e + 7e$
Answer: $8e$

Work out

A written or mental calculation is needed.

Work out 6^2
Answer: $6 \times 6 = 36$

Calculate

You will need to do a sum either with or without your calculator.

Explain

You must state why!

You must show your working

If you don't show your working you won't get ALL the marks!

Give your answer in its simplest form

Cancelling of a fraction or ratio is needed.

$\frac{12}{4} : \frac{15}{5}$
simplified is $4 : 5$

Expand

Multiply out (remove brackets)

Expand $4(3x - 2)$
Answer: $12x - 8$

Solve

Find the value of, usually find what x is!

Solve: $3x = 12$
Answer: $x = 4$

Factorise

To find factors (put brackets in)

Factorise $6x + 10x^2$
Answer: $2x(3 + 5x)$

Describe fully

Usually transformations:

- Translation by a vector (2 marks)
- Enlargement of a scale factor about a point (3 marks)
- Reflection in a mirror line (2 marks)
- Rotation through an angle about a point (3 marks)

Measure

Use a ruler or protractor to accurately measure lines or angles.

Sketch

An accurate drawing is not needed; freehand will do!

Construct, using ruler and compasses

Your ruler is a straight edge and compasses must be used to draw arcs.

Diagram NOT accurately drawn

Don't measure angles or sides.