# Year 11 Information Evening
GCSE Mathematics

Mathematics Faculty- Information

- GCSE Maths is a two-year course studied in year 10 and 11.

- GCSE Maths is assessed at Foundation Tier (grades 1-5) OR Higher Tier (grades 4-9).

- All question papers must be taken at the same tier.

- Students are examined in all aspects of maths including number, algebra, geometry and
- statistics, with a focus on problem solving.

- The final exam consists of the following papers:

o Paper 1: Non-Calculator (1.5 hours, 80 marks) - **Thursday 15 May 2025** (Morning)
o Half-Term holiday
o Paper 2: Calculator   (1.5 hours, 80 marks) – **Wednesday 4 June 2025** (Morning)
o Paper 3: Calculator   (1.5 hours, 80 marks) – **Wednesday 11 June 2025** (Morning)

- **All content** could be assessed on any of the papers.

Mathematics - Mocks

Before the main math exam, there will be two very important formal MOCK exams

- **Mock 1** (November 2024). Students will sit **2 papers**.

- **Mock 2** (March 2025). Students will sit **3 papers**.

- Final exam **tiers** will be determined after the results from mock exams.

- Minimum of **60%** must be achieved from the **cross-over questions** to do **higher tier**.
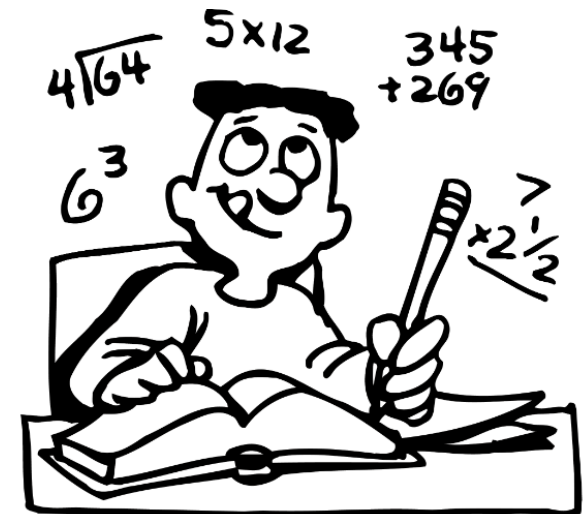
Essential Equipment for Maths Lessons/Exams

- **Scientific Calculator**

- **Black ball point pen**

- **Pencil, sharpener and rubber**

- **Geometry set**

- **Green pen to mark work**
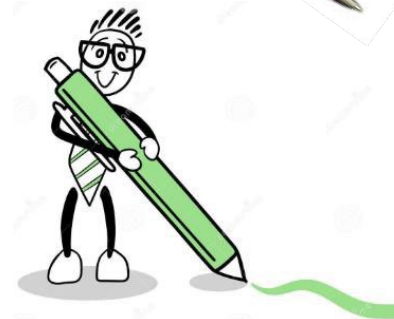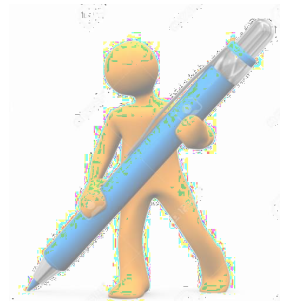
Useful Websites

Dr Frost Maths – provides an online learning platform, teaching resources, videos and a bank of exam questions.

Corbett Maths – Maths Resources: Videos, Worksheets, 5-a-day, Revision Cards and much more.

Maths Genie - Free online GCSE video tutorials, notes, exam style questions, worksheets, answers for all topics in Foundation and Higher GCSE.

Useful Websites

Demo 11/ma1 Student
St Andrew the Apostle Greek Orthodox School

Trophies
0/37

Points This Year
0

Mastery
0   0   0

What to work on next?

Start a Practice

Review Progress

YOUR COURSES
Year 11 (Higher)

My Homewrok

✖ Y11 Term 1 - Revision HW
Due 3 days from now

✖ Similar Shapes & Frustum
Due 3 days ago

✖ Surface area and Volume 3D
Due Last week

Review All
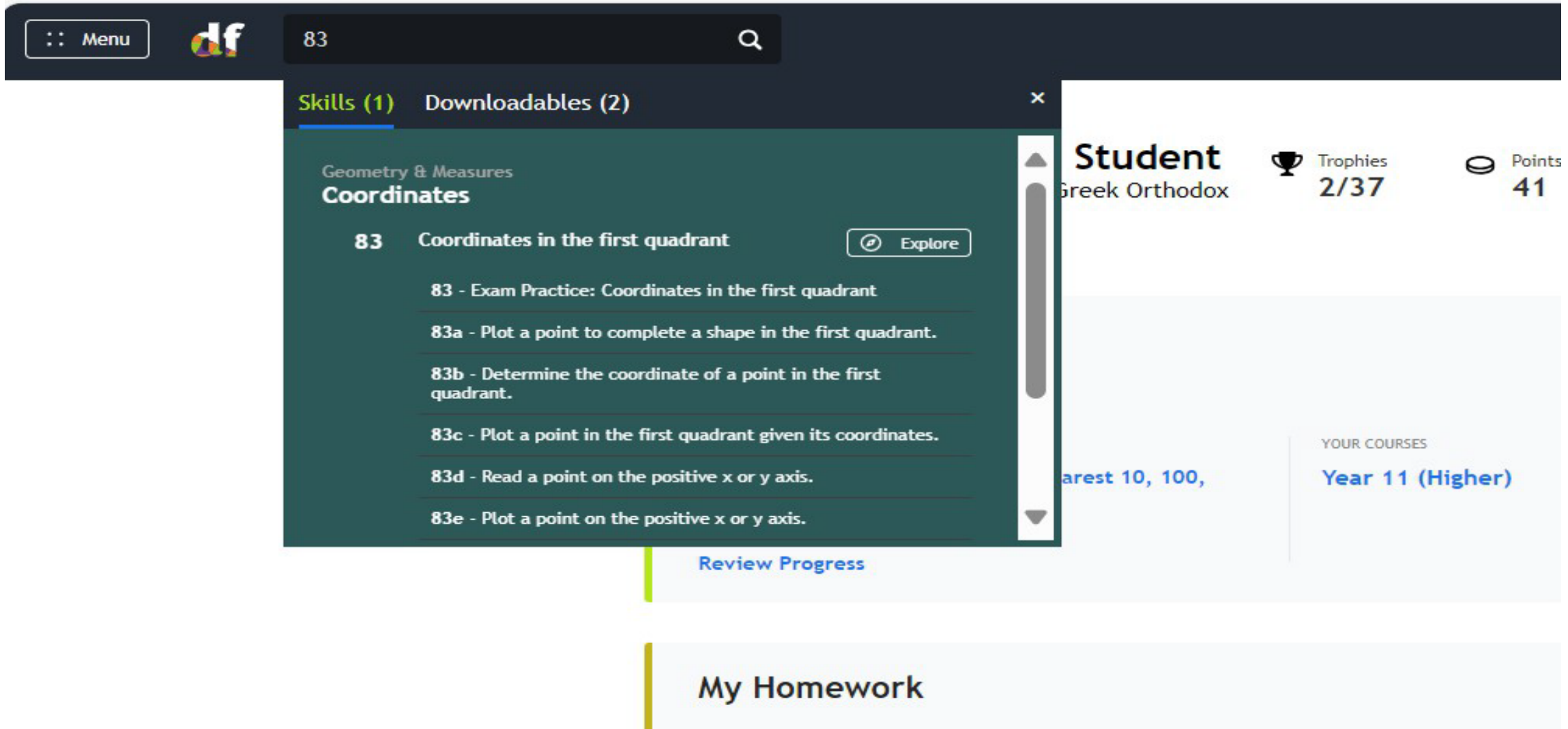
Resources

▤ Questions & Past Papers

▥ Lesson Resources

▢ Dr Frost Live!

Notifications

✎ You have been set a task by your teacher Mr U Dogan. Click to start it.
YESTERDAY
Y11 Term 1 - Revision HW

✎ You have been set a task by your teacher Mr U Dogan. Click to start it.
LAST WEEK
Similar Shapes & Frustum

✎ You have been set a task by your teacher Mr U Dogan. Click to start it.
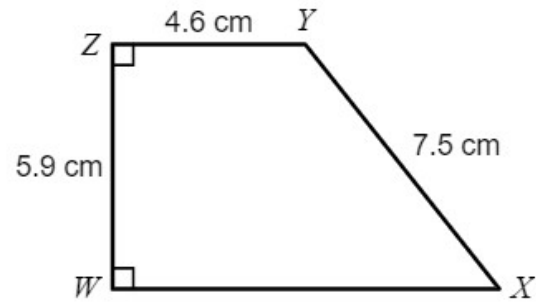2 WEEKS AGO
Surface area and Volume 3D

Dr Frost Maths

The diagram shows a trapezium $WXYZ$.

Find the length WX.
Give your answer to 2 decimal places.

[   ] cm

Submit Answer

Dr Frost Maths

Dr Frost Maths – 19 Units

Unit 1 - Number

1a Calculations, checking and rounding
1b Indices, roots, reciprocals
1c Factors, multiples, primes

Unit 2 - Algebra

2a Setting up, rearranging and solving equations
2b Sequences

Unit 3 - Data

3a Averages and range
3b Representing and interpreting data

Unit 4 - Fractions and proportion

4a Fractions and percentages
4b Ratio and proportion

Unit 5 - Angles and right-angled triangles

5a Polygons, angles and parallel lines
5b Pythagorasâ□□ Theorem and trigonometry

Unit 6 - Graphs

6a Basics and real-life graphs
6b Linear graphs and coordinate geometry
6c Quadratic, cubic and other graphs

Unit 7 - Area and volume

7a Perimeter, area and circles
7b 3D shapes
7c Accuracy and bounds

Unit 8 - Transformations and construction

8a Transformations
8b Constructions, loci and bearings

Unit 9 - Quadratics 1

9a Quadratics and simultaneous equations
9b Inequalities

Dr Frost Maths – 19 Units

St Andrew the Apostle Greek Orthodox School → Year 11 (Higher) → Unit 2 - Algebra →
2a Setting up, rearranging and solving equations

2a Setting up, rearranging and solving equations
12 skills

2b Sequences
6 skills

136 Basic substitution with positive integers (limited to addition, subtraction, division and multiplication)
Mastery: 0/100

Practise

OR NARROW DOWN		VIDEO	DIFFICULTY	RECENT ACCURACY
☐	136: Exam Practice: Basic substitution with positive integers (limited to addition, subtraction, division and multiplication)	Example		1-4
☐	136a: Substitute positive integers into expressions with one variable (single operation).	Example	▦	1
☐	136b: Substitute positive integers into expressions with one variable (single operation plus constant).	Example	▦	1
☐	136c: Substitute positive integers into simple expressions with more than one variable.	Example		2
☐	136d: Substitute positive integers into a simple worded formula.	Example		2
☐	136e: Determine the value of a variable given an equation and the value of one variable within it.	Example		3

191 Multiplying single algebraic terms (no index laws)
Mastery: 0/100

Practise

Dr Frost Maths – 19 Units

136a: Substitute positive integers into expressions with one variable (single operation).

Key Skill - Substitution with one variable (single operation).

SUBSTITUTION WITH ONE VARIABLE (SINGLE OPERATION)

KS

@ Calculate $3x$ when $x=2$.

ⓑ Work out $\frac{8}{y}$ when $y=4$.

ⓒ Determine z^2 when $z=5$.

$3x$

Watch on ▶ YouTube

Dr Frost Maths – 19 Units

St Andrew the Apostle Greek Orthodox School → Year 11 (Higher) → Unit 2 - Algebra →

2a Setting up, rearranging and solving equations

2a Setting up, rearranging and solving equations
12 skills

2b Sequences
6 skills

136 Basic substitution with positive integers (limited to addition, subtraction, division and multiplication)
Mastery: 0/100

Practise

OR NARROW DOWN		VIDEO	DIFFICULTY	RECENT ACCURACY
☐ 136: Exam Practice: Basic substitution with positive integers (limited to addition, subtraction, division and multiplication)	Example		1-4	
☐ 136a: Substitute positive integers into expressions with one variable (single operation).	Example	▦	1	
☐ 136b: Substitute positive integers into expressions with one variable (single operation plus constant).	Example	▦	1	
☐ 136c: Substitute positive integers into simple expressions with more than one variable.	Example		2	
☐ 136d: Substitute positive integers into a simple worded formula.	Example		2	
☐ 136e: Determine the value of a variable given an equation and the value of one variable within it.	Example		3	

191 Multiplying single algebraic terms (no index laws)
Mastery: 0/100

Practise

Year 11 Mock Exam Assessment Feedback (H tier Nov 2023)

GCSE Mathematics Higher Tier

Name: Sample Student
Class: 13D

Paper 1

Paper 1	Question Title	Score			Dr Frost
1	Expand and simplify an expression	1	/	2	K83d
2a	Identify correlation	1	/	1	K135b
2b	Draw a line of best fit	1	/	1	K135c
2c	State why the line of fit may not be suitable for a given value	0	/	1	K135c
3	Word problem involving fractions, ratio and percentage	5	/	5	K101a, 106a & 110a
4a	Sketch the plan view of a prism	0	/	2	K249a
4b	Sketch a prism	2	/	2	
5	Word problem involving pressure	3	/	3	K232a-c
6a	Write a number given as an ordinary number in standard form	1	/	1	K212a
6b	Write a number given in standard form as an ordinary number	1	/	1	K213a
6c	Multiply rwo numbers given in standard form	1	/	2	K215a
7	Word problem involving the perimeters and areas of a square and a trapezium	0	/	4	K69b & K146a
8a	Estimate an expression involving squares and roots	1	/	2	K123a & b
8b	Decide if the estimation in part a is an underestimate or an overestimate	1	/	1	
9	Word problem involving percentage	0	/	3	K113b
10a	Draw a box plot	2	/	3	K136a
10b	Compare two box plots	1	/	2	E136
11	Word problem involvingdivision and subtraction	4	/	4	K198c & g
12	Simplify an expression involving surds	3	/	3	K314a,b,e,f
13	Problem involving the quadratic equation	1	/	1	K267a
14	Word problem involving probability	1	/	3	K259c
15	Change the subject of a formula	3	/	4	K186c,d,f
16	Problem involving ratio and equations	1	/	4	
17	Problem involving circle theorems	2	/	4	K306a-e
18	Factorise an expression	1	/	2	K196a
19	Simplify an expression given as a power	4	/	4	K207b
20a	Sketch a sine graph	1	/	1	K284b
20bi	Find a value from a cosine graph	0	/	1	
20bii	Problem involving vectors	0	/	1	
21	Complete the square for a quadratic (a≠1)	2	/	3	E312
22a	Find the turning point of the quadratic in part a	3	/	3	
22b	Geometric reasoning involving a circle and a straight line	0	/	1	K271a & b
23	Equation of a line meeting a circle	0	/	5	E328
	Total	**47**	/	**80**	

Paper 2

Paper 2	Question Title	Score			Dr Frost
1	Find the HCF of two numbers	0	/	3	K115c
2a	Simplify an expression involving indices	1	/	1	K206a
2b	Simplify an expression involving indices	2	/	2	K206d
3a	Word problem involving different currencies	4	/	4	K91a & b
3b	Explain how a change to the given conditions would affect the answer to part a	1	/	1	
4a	Translate a shape by a vector	2	/	2	K168a
4b	Describe a transformation	2	/	2	K235b
5	Describe what is wrong with a given frequency polygon	1	/	2	E138
6	Word problem involving rectangles, area, perimeter and percentages	3	/	3	K112a
7	Problem involving ratio and equations	0	/	2	K107a
8	Find the area of a circle given a triangle inscribed in the circle	1	/	4	K228a K114a
9a	Work out the gradient of a line	0	/	2	K189b
9b	Describe what the gradient in part a represents	1	/	1	
10a	Complete a cumulative frequency table	1	/	1	K257b
10b	Draw a cumulative frequency curve	2	/	2	K257b
10c	Estimate the median from a cumulative frequency curve	1	/	1	K257c
10d	Find a probability from a cumulative frequency curve	2	/	2	K257e
11	Word problem involving percentages	2	/	2	E210
12	Expand an expression involving three sets of brackets	2	/	3	K180b
13a	Identiify a graph	1	/	1	K281a
13b	Identiify a graph	0	/	1	K281a
13c	Identiify a graph	0	/	1	K281a
14	Prove that two triangles are congruent	0	/	3	E301
15a	Find the value of a function	1	/	1	K274a
15b	Find the inverse of a function	2	/	2	K277a
16	Word problem involving probability	3	/	3	K259c
17	Problem involving right angled triangles and trigonometry	0	/	2	K241b K184a
18	Find an expression for the nth term of a quadratic sequence	3	/	3	K199a
19	Question involving bounds	3	/	4	K216c,b K218d
20	Find the area of a segment of a circle	5	/	5	K241b K304a
21	Sine rule and Cosine rule	5	/	5	K302 K303
22	Problem involving similar shapes	1	/	5	K245a-e
23	Solve a quadratic inequality	1	/	4	K292a & b
	Total	**53**	/	**80**	

Question Level Analysis - QLA

...ent Feedback (H tier Nov 2023)

...er

	Score			Dr Frost
	1	/	2	K83d
	1	/	1	K135b
	1	/	1	K135c
...for a given value	0	/	1	K135c
...l percentage	5	/	5	K101a, 106a & 110a
	0	/	2	K249a
	2	/	2	
	3	/	3	K232a-c
...er in standard form	1	/	1	K212a
...n ordinary number	1	/	1	K213a
...m	1	/	2	K215a
...l areas of a square	0	/	4	K69b & K146a
...d roots	1	/	2	K123a & b
...restimate or an	1	/	1	

Name Sample Student
Class 13D

Paper 2	Question Title
1	Find the HCF of two numbers
2a	Simplify an expression involving indices
2b	Simplify an expression involving indices
3a	Word problem involving different curre...
3b	Explain how a change to the given cond... to part a
4a	Translate a shape by a vector
4b	Describe a transformation
5	Describe what is wrong with a given fre...
6	Word problem involving rectangles, are...
7	Problem involving ratio and equations
8	Find the area of a circle given a triangle...
9a	Work out the gradient of a line
9b	Describe what the gradient in part a rep...
10a	Complete a cumulative frequency table...

Question Level Analysis - QLA

Question Level Analysis - QLA

Question Level Analysis - QLA

St ANDREW
THE APOSTLE

Coordinates

83 Coordinates in the first quadrant
Mastery: 0/100

OR NARROW DOWN	VIDEO		DIFFICULTY	RECENT ACCURACY
☐ 83: Exam Practice: Coordinates in the first quadrant	Example	▦	1-4	
☐ 83a: Plot a point to complete a shape in the first quadrant.	Example	▦	1	
☐ 83b: Determine the coordinate of a point in the first quadrant.	Example	▦	1	
☐ 83c: Plot a point in the first quadrant given its coordinates.	Example	▦	1	
☐ 83d: Read a point on the positive x or y axis.	Example	▦	1	
☐ 83e: Plot a point on the positive x or y axis.	Example	▦	1	
☐ 83f: Use a scale to find the distance between two points with the same x- or y-coordinate in the first quadrant.	Example	▦	3	
☐ 83g: Use a scale to find the horizontal or vertical distance between any two points in the first quadrant.	Example	▦	4	

How you can support your child

- A **quiet space** to work and a regular routine for completing homework are highly recommended.

- Access to a **scientific calculator** is essential to make sure students get used to using their own.

- Regular **revision and practice** of key skills will help to achieve better confidence and recall in exams.

- **Avoid distractions** such as phones while studying. Take it away!