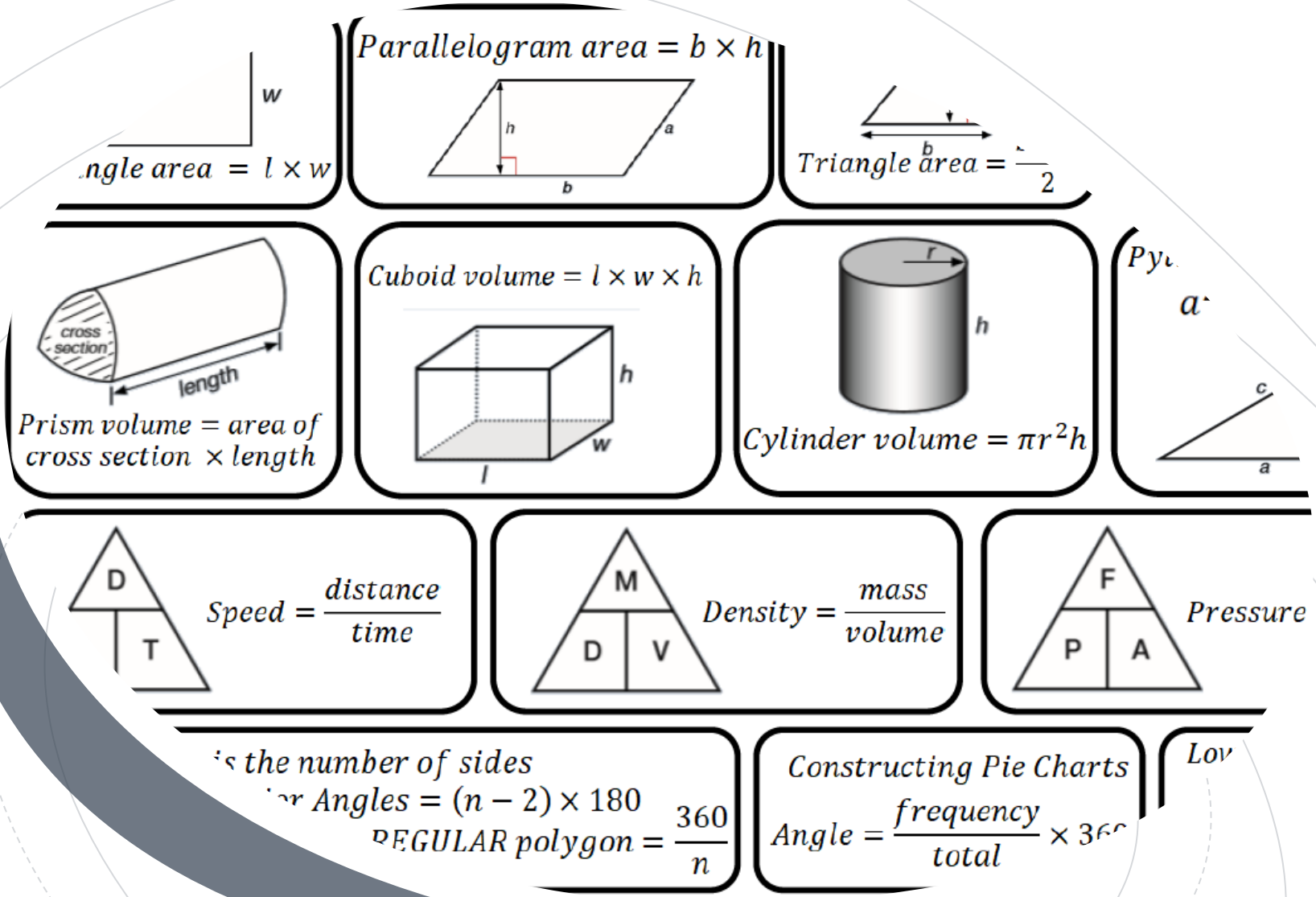
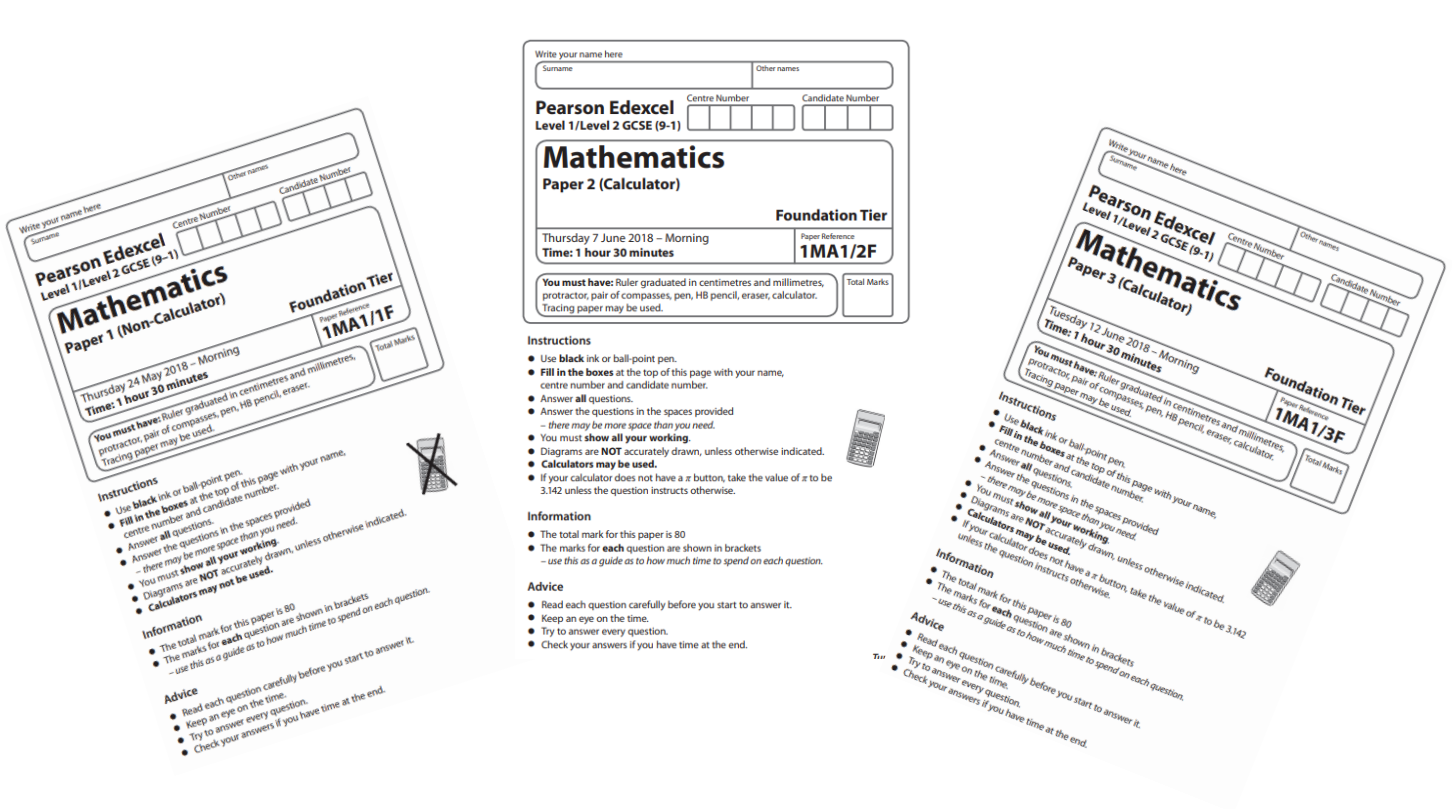


GCSE Mathematics at The Friary

About the Maths exam



Exam Board

Edexcel

Tiers

Higher (Grade 4-9) Foundation (Grade 1-5)

3 Papers

1 Non-calculator

2 Calculator

Each 1.5hrs long

Exam Papers in Focus: Higher

Write 124 as a product of its prime factors.

Work out the value of $\dfrac{\left(5\frac{4}{9}\right)^{-\frac{1}{2}} \times \left(4\frac{2}{3}\right)}{2^{-3}}$

You must show all your working.

Cormac has some sweets in a bag.
The sweets are lime flavoured or strawberry flavoured or orange flavoured.

In the bag

$$\text{number of lime flavoured sweets} : \text{number of strawberry flavoured sweets} : \text{number of orange flavoured sweets} = 9 : 4 : x$$

Cormac is going to take at random a sweet from the bag.

The probability that he takes a lime flavoured sweet is $\frac{3}{7}$

Work out the value of x.

A delivery company has a total of 160 cars and vans.

the number of cars : the number of vans = 3 : 7

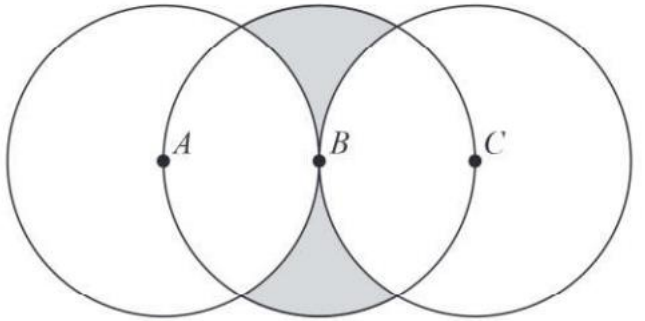
Each car and each van uses electricity or diesel or petrol.

$\frac{1}{8}$ of the cars use electricity.
25% of the cars use diesel.
The rest of the cars use petrol.

Work out the number of cars that use petrol.
You must show all your working.

The diagram shows three circles, each of radius 4 cm.

The centres of the circles are A, B and C such that ABC is a straight line and $AB = BC = 4$ cm.



Work out the total area of the two shaded regions.
Give your answer in terms of π

Exam Papers in Focus: Foundation

A delivery company has a total of 160 cars and vans.

the number of cars : the number of vans = 3 : 7

Each car and each van uses electricity or diesel or petrol.

$\frac{1}{8}$ of the cars use electricity.
25% of the cars use diesel.
The rest of the cars use petrol.

Work out the number of cars that use petrol.
You must show all your working.

Change 40 centimetres into millimetres.

Simplify $e + e + e + e$

The diagram shows three identical rectangles **A**, **B** and **C**.

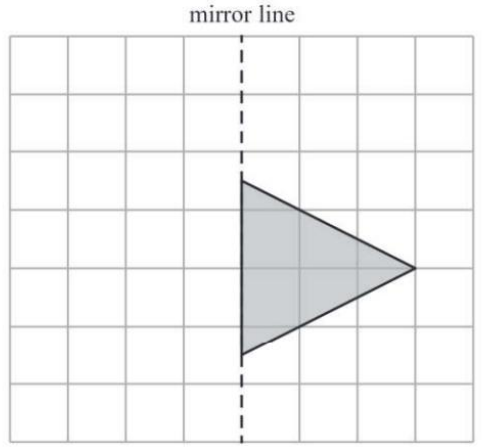
Rectangle **A** Rectangle **B** Rectangle **C**

$\frac{5}{8}$ of rectangle **A** is shaded.

$\frac{9}{11}$ of rectangle **C** is shaded.

Work out the fraction of rectangle **B** that is shaded.

On the grid, reflect the shaded triangle in the mirror line.



(Total for Question 3 is 1 mark)

Equipment

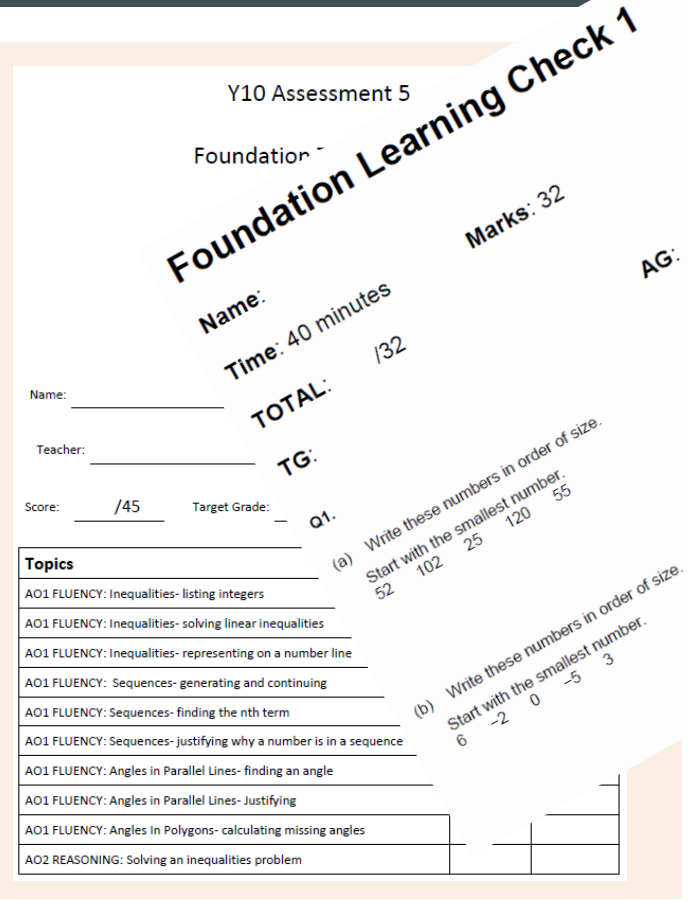
Calculator

+

All other standard equipment for lessons (pen, pencil, ruler etc)

Students DO NOT need a pair of compasses, or a protractor as we lend those out when we need them

Assessment



Y10 Assessment 5

Foundation

Foundation Learning Check 1

Name:

Marks: 32

Time: 40 minutes

TOTAL: /32

AG:

Name: _____

Teacher: _____

TG:

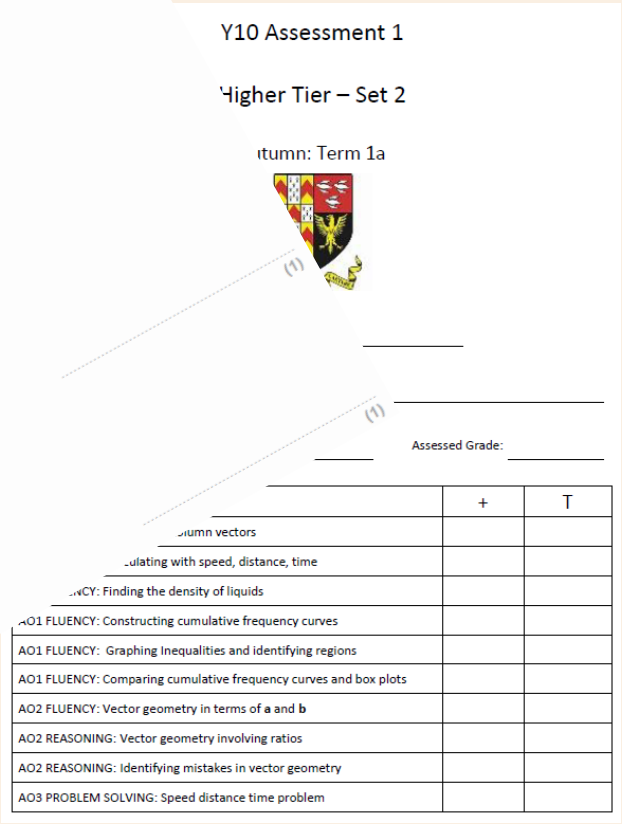
Score: /45 Target Grade: _

Q1.

(a) Write these numbers in order of size.
Start with the smallest number.
52 102 25 120 55

(b) Write these numbers in order of size.
Start with the smallest number.
6 -2 0 -5 3

Topics
AO1 FLUENCY: Inequalities- listing integers
AO1 FLUENCY: Inequalities- solving linear inequalities
AO1 FLUENCY: Inequalities- representing on a number line
AO1 FLUENCY: Sequences- generating and continuing
AO1 FLUENCY: Sequences- finding the nth term
AO1 FLUENCY: Sequences- justifying why a number is in a sequence
AO1 FLUENCY: Angles in Parallel Lines- finding an angle
AO1 FLUENCY: Angles in Parallel Lines- Justifying
AO1 FLUENCY: Angles In Polygons- calculating missing angles
AO2 REASONING: Solving an inequalities problem



Y10 Assessment 1

Higher Tier – Set 2

itumn: Term 1a

(1)

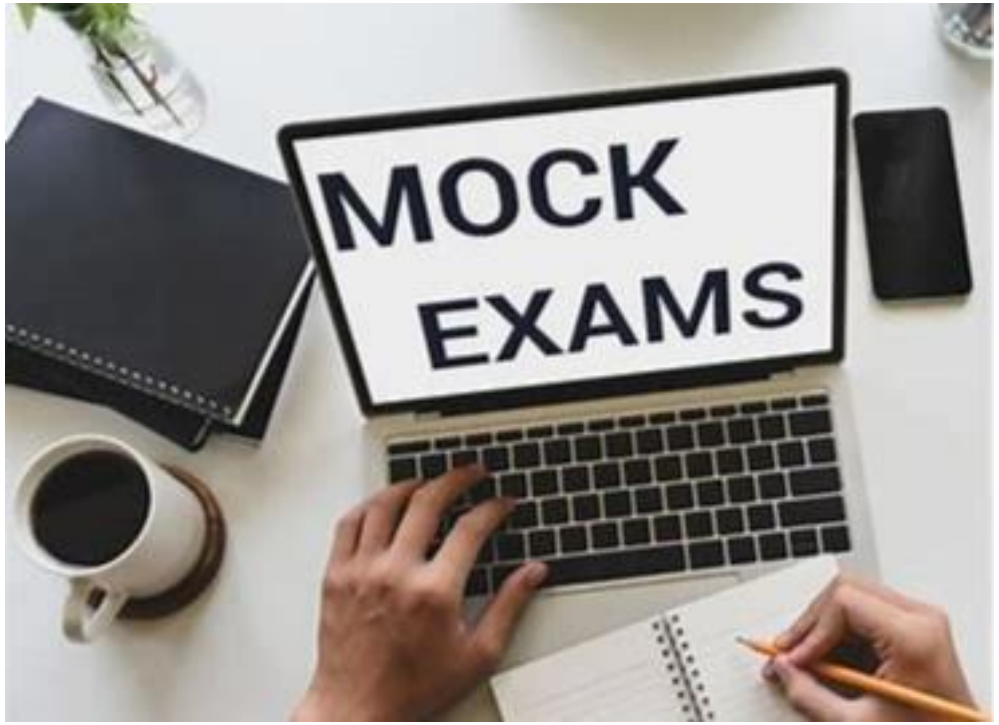
(1)

Assessed Grade:

	+	T
olumn vectors		
ulating with speed, distance, time		
NCY: Finding the density of liquids		
AO1 FLUENCY: Constructing cumulative frequency curves		
AO1 FLUENCY: Graphing Inequalities and identifying regions		
AO1 FLUENCY: Comparing cumulative frequency curves and box plots		
AO2 FLUENCY: Vector geometry in terms of **a** and **b**		
AO2 REASONING: Vector geometry involving ratios		
AO2 REASONING: Identifying mistakes in vector geometry		
AO3 PROBLEM SOLVING: Speed distance time problem		

- 1 end of half term assessment
- 2-3 learning checks throughout each half term
- Focus is current topic with some previous content addressed
- Revision homework set and checked for completion
- Revision in class
- Focus on exam technique
- Specific after school booster sessions

Key Assessment Timeline



Mid-Year Assessment takes place in February

Y10 Mocks- June. This will assess both pupils' calculator and non-calculator skills. This will be the first time that Year 10 pupils will complete two full papers in the sports hall. This is in preparation for the Y11 November mocks, where pupils will sit a full set of 3 GCSE papers.

Topic Overview for this half term

Set 3B/4
- Powers
- Decimals and rounding
- HCF/LCM
- Expressions, substitution and formulae
- Constructing and interpreting graphs, tables and charts

Set 3A
- Expanding brackets with single and double brackets
- Factorising to single and double brackets
- Solving Quadratic Equations
- Standard form – writing and calculating with very large and very small numbers.
- Direct and Inverse Proportion

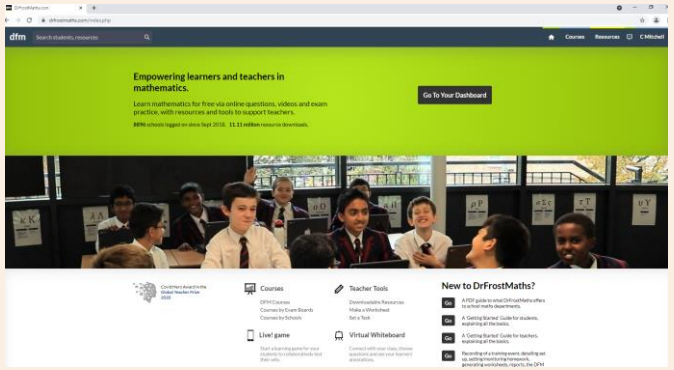
Set 1
- Ratio to linear functions
- Volumes of complex 3D shapes – spheres, cones, frustums
- Vectors – column, geometric and proof
- Congruent shapes, conditions and proof
- Indices – fractional and negative

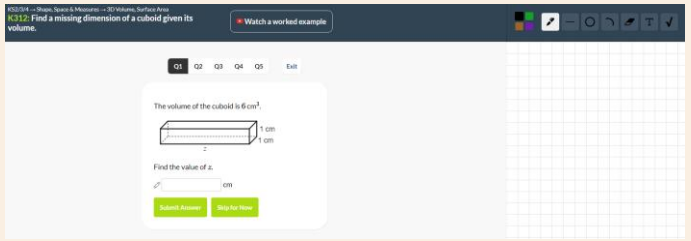
Set 2
- Ratio to linear functions
- Volumes of complex 3D shapes – spheres, cones, frustums
- Vectors – column, geometric and proof
- Indices – fractional and negative

Home Learning

Homework Tasks

Dr Frost Website





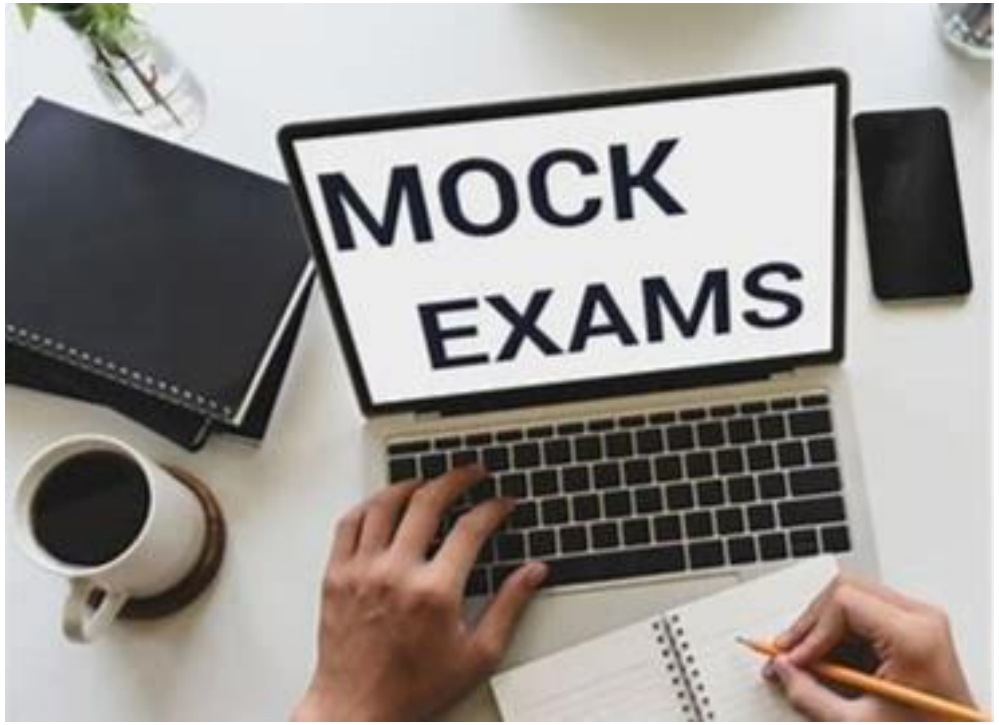
Homework Tasks Information

- Set weekly
- Focuses on current learning and retrieving old learning
- Expected to be fully completed

Dr Frost Information

- Login is school email address, password is “friary”
- Earn points – links to house points and student of the week
- In class studying, revision, new learning

Expectations



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What can students do to improve their Maths?

Websites

https://www.drfrostmaths.com/

https://www.mathsgenie.co.uk/

https://corbettmaths.com/

Revision Workbooks

Resources on these websites include

- Video tutorials
- Exam questions
- Textbook questions
- Full solutions
- Revision pages
- Games

PRACTICE MAKES PERMANENT