MATHS GCSE

Making the next few weeks count

What do we know?

AQA | Foundation | GCSE Maths Advance Information 2022

THIRD SPACE LEARNING

Topics in **bold** appear on both tiers - some of these may include the overlap questions that appear on both papers.

	Number	Ratio	Algebra	Geometry	Probability	Statistics
Paper 1	• Four operations • Negative number • Order of operations • Estimation • **Fraction arithmetic** • **Fraction of a number** • **Laws of indices** • **Standard form conversion and calculation** • Inequality notation • Systematic listing	• Conversions: lengths • Percentage of an amount • Amount as a percentage • Fraction less than 1 • **Ratio in simplest form** • Ratio to fraction • Cost problem • Density	• **Linear equations** • **Recognise graphs** • Plot graphs • Linear graph • Intersection of lines • Interpret graphs • Formula (reasoning) • Sequence rule to find a term	• Naming circle part • Types of triangle • Translation • Perimeter • **Sector of a circle** • Angles in triangles • **Constructions: region**	• Probability: problem • **Venn diagram**	• Two-way table • Averages problem • Outlier
Paper 2	• Order of operations • Fraction of a number • Improper fraction • Fraction to decimal • Number line decimal • Number problem • **Prime number** • **Cube number** • **Decimal place** • Inequality notation	• **Time conversion** • Ratio and percentage • **Percentage increase** • **Percentage decrease** • Ratio n : 1 form • Proportion problem • Scale diagram • Better value • Ratio to percentage • **Equation to percentage** • **Rate of output**	• **Linear equations** • Equivalent expressions • Terms • **Multiply out** • Factorisation • Coordinates • Midpoint • Point on line • Intercept of a line • Gradient of a line • Equation of a line	• Draw shape • Quadrilateral • Parallelogram • Part of circle • **Pythagoras** • Time problem • **Area/volume: compound shape**	• **Relative frequency** • **Expected value** • Tree diagram	• **Pie chart** • Range • **Mean**
Paper 3	• Place value • Factor • Multiple • **Highest common factor** • **Error interval** • Indices calculation • Money problem • Units of measure	• Conversions: lengths, time • **Share into a ratio** • Ratio problem • Interpretation • Ratio to graph • **Average speed** • **Percentage increase** • Fraction to percentage	• Number machine • **Simplification** • Substitution • Formula • **Graphs: roots, turning point** • **Arithmetic sequence** • **Geometric sequence** • **nth term**	• Name shape • Regular shape • Line symmetry • Rotational symmetry • Circle • Cylinder • Sphere • **Trigonometry** • **Area/volume: compound shape** • Perimeter • Alternate angles • **Vector arithmetic**	• Frequency tree • Estimate of probability	• **Two-way table** • Vertical line diagram • Mean from diagram • Bar chart

What do we know?

Mathematics Assessment Feedback

Paper	November 2021 Paper 1H
Name	
Teacher	Mrs Lawrence

sparx

Questions	Topic	Score	Sparx Code
1	Simplifying expressions using index laws	1 / 1	U662
2	Converting between fractions, decimals and percentages	1 / 1	U888
3	Properties of 3D shapes	1 / 1	U719
4	Graphs of reciprocal functions	1 / 1	U593
5	Prime factor decomposition	3 / 3	U739
6	Constructing fractions, Reading, converting and calculating with time	2 / 2	U163,U902
7	Estimating calculations	3 / 3	U225
8a	Solving inequalities with the variable on both sides	3 / 3	U738
8b	Reading and drawing inequalities on number lines	2 / 2	U509
9	Solving shape problems involving coordinates, Symmetry	0 / 2	U889,~~U849~~
10a	Multiplying and dividing with place value, Using standard form with positive indices	2 / 2	U735,U330
10b	Multiplying and dividing numbers in standard form	1 / 2	U264
11	Calculating with speed	4 / 4	U151
12	Finding unknown sides in right-angled triangles	2 / 3	U283
13	Converting fractions to recurring decimals	0 / 2	U550
14	Adding and subtracting algebraic fractions	1 / 1	U685
15	Expanding double brackets	3 / 3	U768
16a	Interpreting cumulative frequency graphs	1 / 2	U642
16b	Drawing box plots	2 / 3	U879
17	Translation	1 / 1	U196
18a	The cosine rule	0 / 1	U591
18b	The sine rule	1 / 1	U952
19a	Conditional probabilities from tree diagrams	2 / 2	U806
19b	Conditional probabilities from tree diagrams	0 / 3	U806
20	Calculating with density	1 / 1	U910
21	Position-to-term rules for quadratic sequences	4 / 4	U206
22	Index rules with negative indices	0 / 3	U694
23	Changing the subjects of formulae	1 / 3	U556
24a	Substituting into functions, Solving simultaneous equations	1 / 3	~~U637~~,U760,U757
24b	Finding composite functions	0 / 1	U448
25	Multiplying and dividing surds, Adding and subtracting surds	3 / 3	U633,U872
26	Calculating with ratios and algebra	1 / 3	U676
27	Finding the area of sectors, Using the exact values of trigonometric ratios	1 / 4	U373,U627
28a	Transforming graphs	0 / 1	U455
28b	Transforming graphs	1 / 1	U455
28c	Transforming graphs	1 / 1	U455
29	Rotation	3 / 3	U696
	Total	54 / 80	

Class: 11st/M1

Teacher: Mrs Lawrence

Target Grade: 6

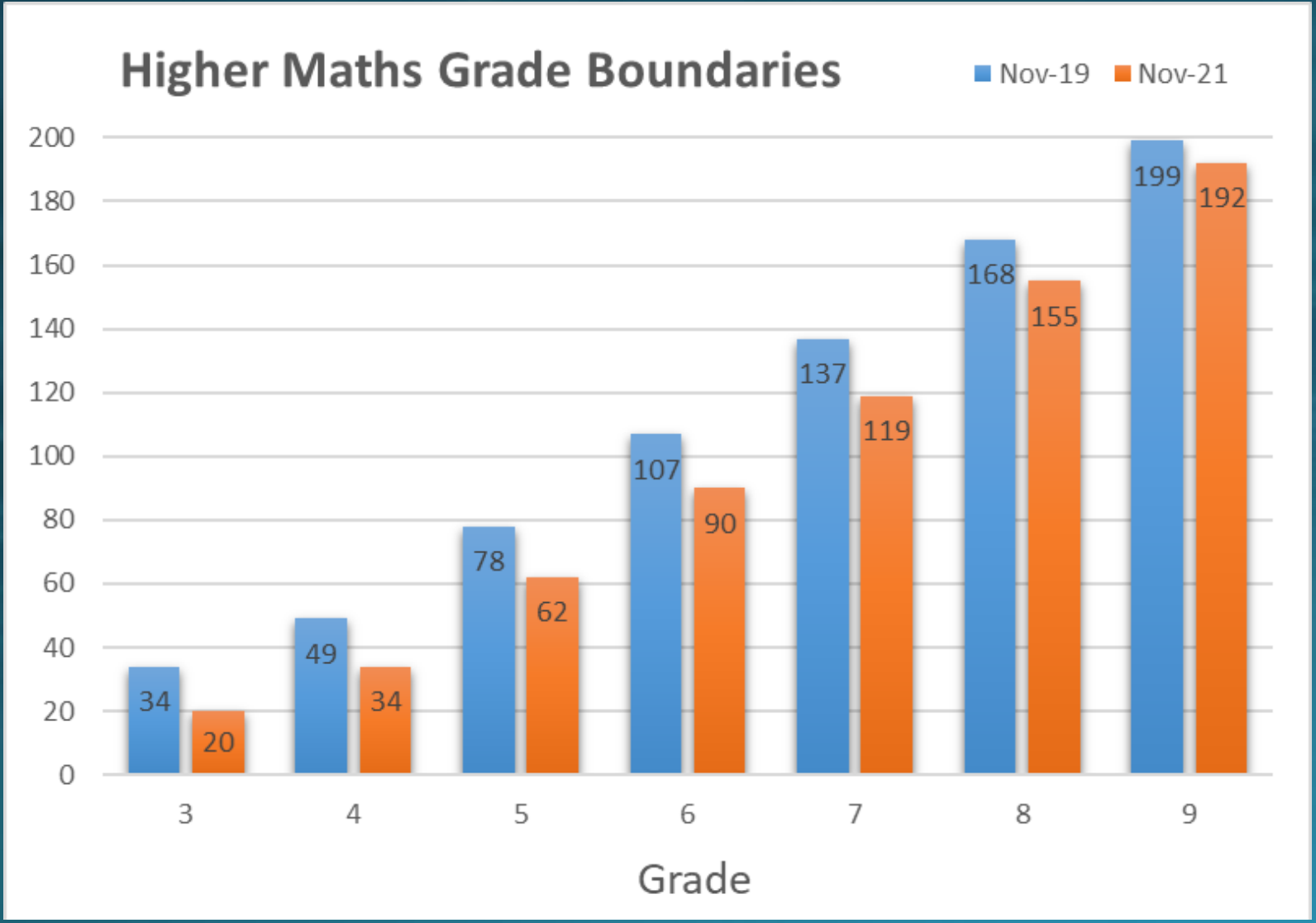
Nov Mock Grade: 6

March Mock total out of 240: 131

March Mock Grade (best case): 7

March Mock Grade (worst case): 6

What do we know?



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What are **we** doing with all this this information?

- Class RAG analysis and Advanced topic information is informing our classroom teaching.
- Using predicted papers to increase exam question practice.
- Informing students about what they need to do

What should the students be doing with this information?

The best way to improve at maths is to do maths

What should the students be doing with this information?

OPTION 1 – SPARX (sparxmaths.com)

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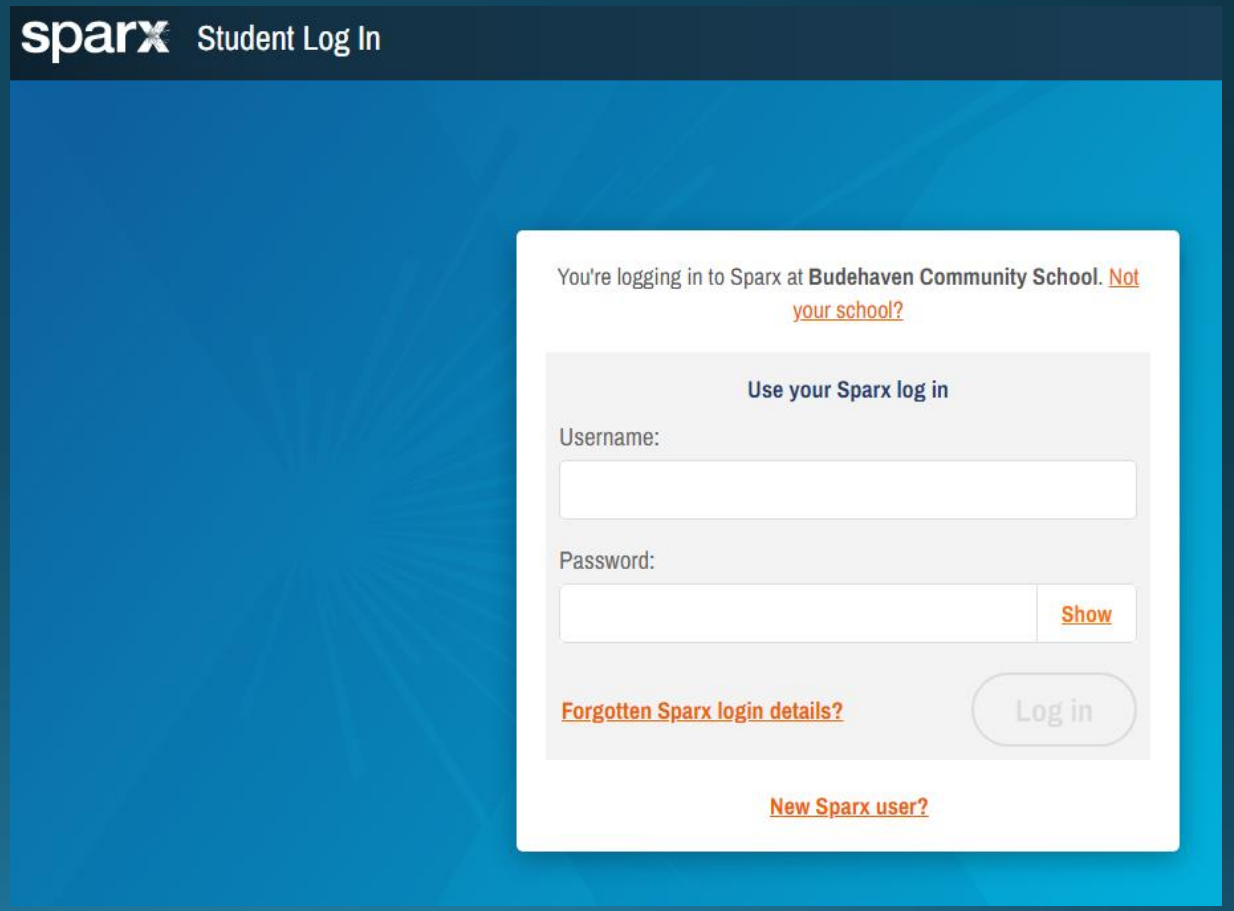

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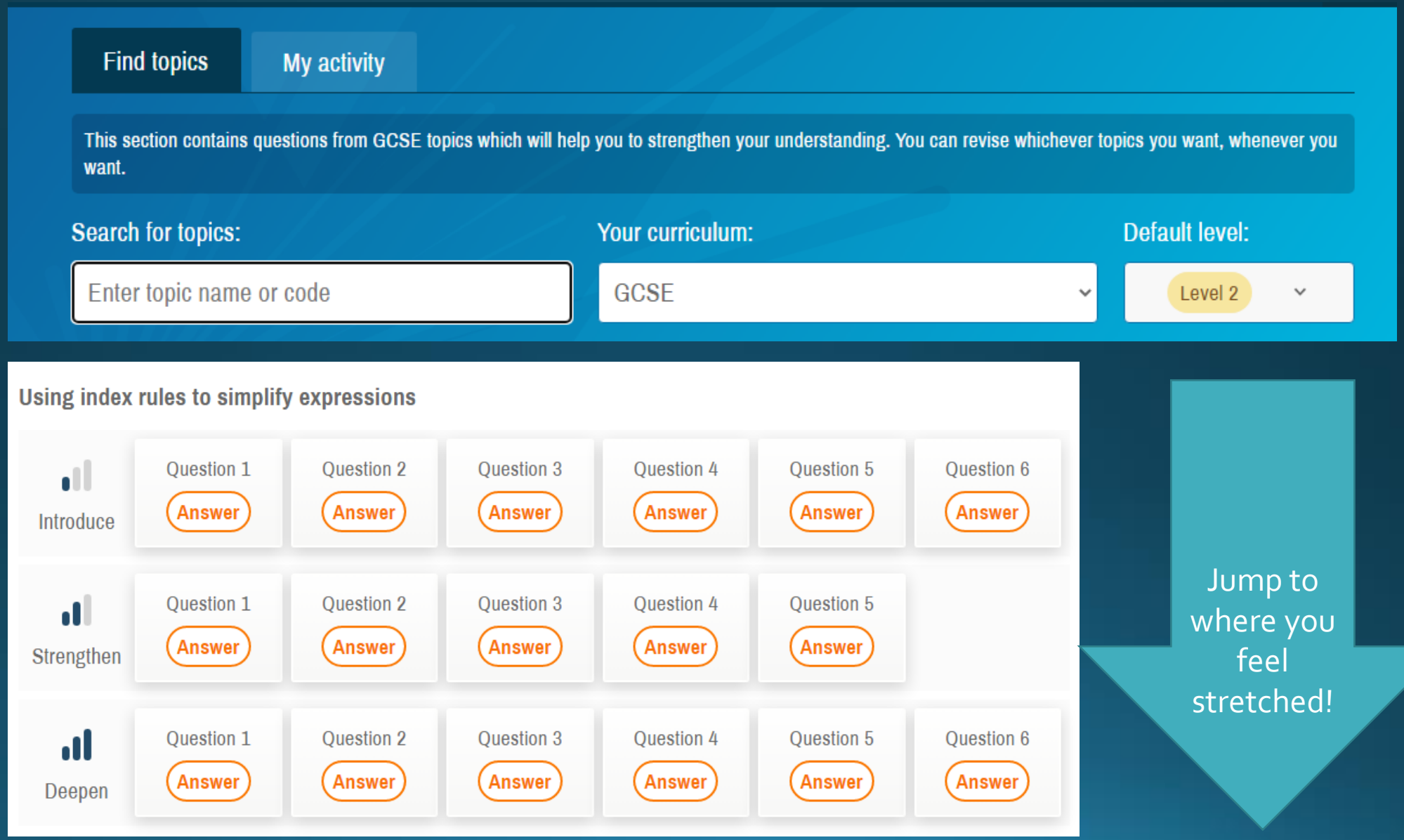
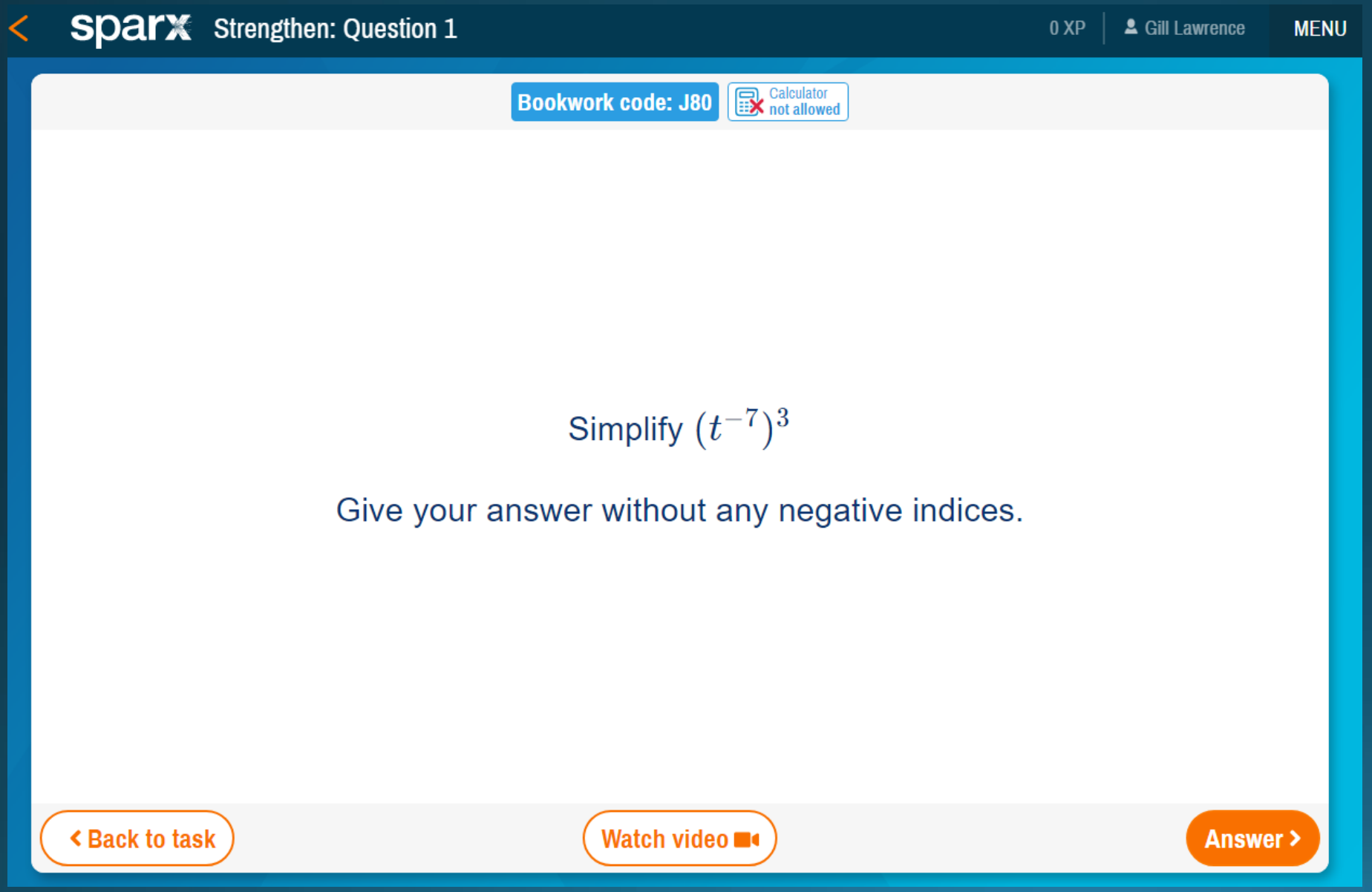


Independent Learning

Jump to where you feel stretched!

OPTION 1 – SPARX (sparxmaths.com)



Full Exam topics codes list by paper available as well as the personalised RAG codes on the students paper breakdowns.

What should the students be doing with this information?

OPTION 2 – Corbett Maths

- Video explanations of all topics
- Past paper questions
- Worked answers to past paper questions
- 5 a day

OPTION 2 – Corbett Maths

www.corbettmaths.com/contents

GCSE Foundation Tier
AQA Paper 1

Multiplication - Video 199, 200
Division - Video 98
Addition - Video 6
Subtraction - Video 304
Estimation - Video 215
Order of Operations - Video 211
Indices - Videos 172, 174
Standard Form - Video 300, 302, 303
Fractions of Amounts - Video 137
Adding Fractions - Video 133
Multiplying Fractions - Video 142
Dividing Fractions - Video 134
Reciprocals - Video 145
Expressing as Fraction or % - Videos 136, 237
Percentages of Amounts - Videos 234, 235, 238
Ratio - Videos 269, 270, 271
Negative Numbers - Videos 205-209
Money/Number problems - Video 400, 401
Best Buys - Video 210

2D Shapes - Videos 1, 2, 327
Angles in a Triangle - Video 37
Perimeter - Video 241
Units - Videos 347, 349, 350, 351
Constructions - Videos 72, 78, 83
Loci - Videos 75, 76, 77
Density - Video 384
Translations - Video 325, 326
Parts of the Circle - Video 61
Circumference - Video 60, 243
Area of a Circle - Video 59, 47
Arc Length - Video 58
Area of a Sector - Video 46

Corbett maths

Two-way Tables - Video 319
Probability - Videos 245, 246, 248
Listing Outcomes - Video 253
Averages & Range - Videos 56, 50, 53, 57
Mode: Frequency Table - Video 56a
Median: Frequency Table - Video 51
Combined Mean - Video 53a
Estimated Mean - Video 55
Venn Diagrams - Video 380

Laws of Indices - Video 174
Sequences - Videos 286, 287, 290, 287a
Geometric Progressions - Video 375
The nth Term - Video 288
Solving Equations - Video 110, 113, 266
Forming Equations - Videos 114, 115
Inequalities - Videos 177, 178, 179
Drawing Linear Graphs - Video 186
$y = mx + c$ - Video 191
Real Life Graphs - Video 171a
Substitution - Video 20
Simultaneous Equations - Videos 295, 297
Quadratic Graphs - Video 264
Cubic Graphs - Video 344
Reciprocal Graphs - Video 346

OPTION 2 – Corbett Maths

Videos and Worksheets

Click here for answers

2D shapes: names Video 1 Practice Questions Textbook Exercise

2D shapes: quadrilaterals Video 2 Practice Questions Textbook Exercise

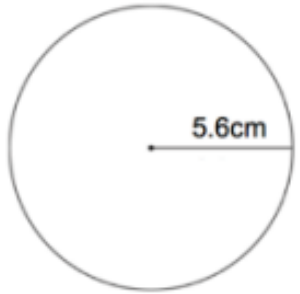
3D shapes: names Video 3 Practice Questions Textbook Exercise

3D shapes: nets Video 4 Practice Questions Textbook Exercise

3D shapes: vertices, edges, faces Video 5 Practice Questions Textbook Exercise

Addition: column method Video 6 Practice Questions Textbook Exercise

10. A circle has radius 5.6cm.



(a) Work out the circumference of the circle.

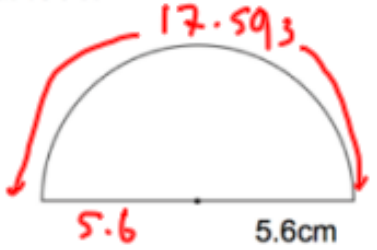
$5.6 \times 2 = 11.2$

$\pi \times 11.2 = 35.185...$

35.186 ..... cm

(2)

A semicircle has radius 5.6cm



(b) Work out the perimeter of the semicircle.

$35.185... \div 2 = 17.5929...$

$17.593 + 5.6 + 5.6 = 28.793$

28.793 ..... cm

(2)

OPTION 2 – Corbett Maths

5-a-day GCSE 9-1

5-a-day GCSE 9-1

Numeracy 5aday – broadly designed for students aiming for Grades 1, 2 and 3.

Foundation – broadly designed for students aiming for Grades 3 and 4.

Foundation Plus – broadly designed for students aiming for Grades 4, 5 and 6.

Higher – broadly designed for students aiming for Grades 6 and 7.

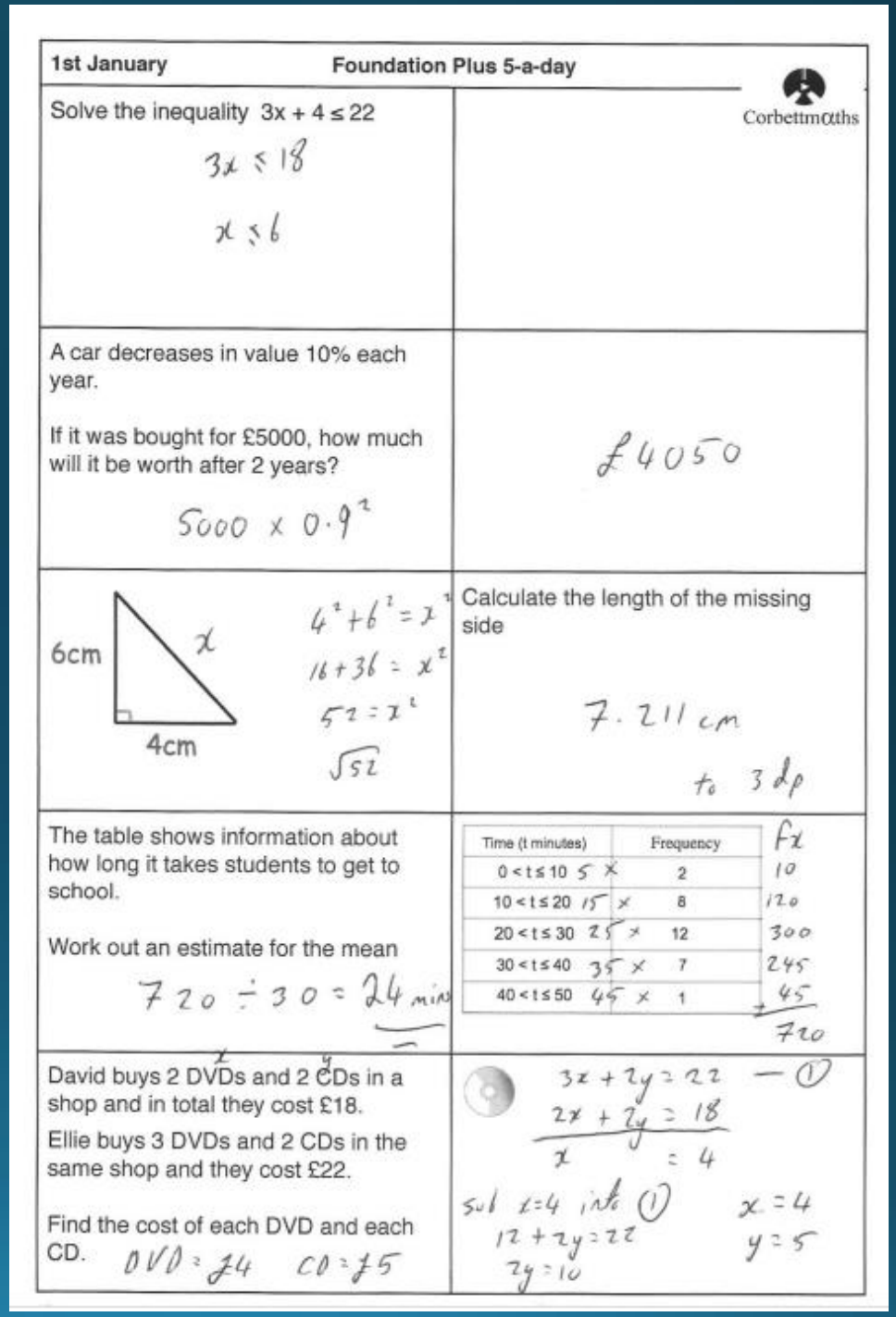
Higher Plus – broadly designed for students aiming for Grades 8 and 9.

January

1st January Numeracy Foundation Foundation Plus Higher Higher Plus

2nd January Numeracy Foundation Foundation Plus Higher Higher Plus

3rd January Numeracy Foundation Foundation Plus Higher Higher Plus



What should the students be doing with this information?

OPTION 3 – Past Papers

- We have made a couple of AQA full past paper sets with mark schemes available to students.

Don’t struggle in silence

- If you get stuck ASK!!!
- Screen shot the question and email it to your teacher or bring in a paper copy.

- FOUNDATION after school session Thursday in M3
- HIGHER after school session Tuesday in M9