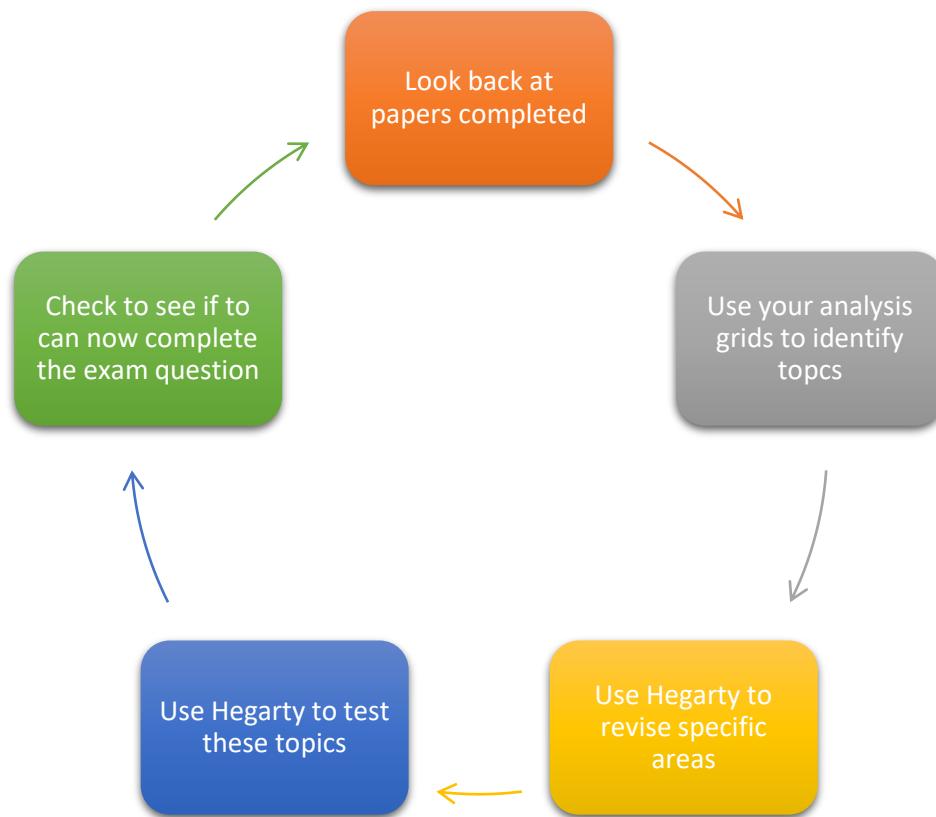


Revising for GCSE Mathematics

Preparation * Pace * Progress



You cannot revise the entire maths course in one go

—

You need to break it down into chunks

Preparation

Identify the topics that you need to revise – The analysis grids give you this information – If you need support in identifying your key topics talk to your teacher

Pace

Look at how long it will take you to revise a topic – plan ahead and organise your revision so that you know what topics you will revise and when you will revise them

Progress

Always check your understanding against the Exam Papers you have done to check your progress – if you need help in checking your progress ask your teacher for additional examples from a topic

Topic List (higher)	Clip Numbers			
Negative Numbers: Four Operations	41 , 42 , 43 , 44			
Add and Subtract Fractions and Mixed Numbers	63 , 64 , 66			
Multiplication and Division of Fractions	67 , 68 , 69 , 70 , 71 , 72			
Multiplication and Division of Decimal Numbers	48 , 49 , 50			
Basic Percentages: Non-Calculator and Calculator	84 , 85 , 86 , 87			
Fraction, Decimal and Percentage Conversions	52 , 55 , 74 , 76 , 82 , 83 , 149			
Estimation and Significant Figures	130 , 131			
Basic Index Laws	103 , 105 , 106 , 107			
Fractional and Negative Index Laws	104 , 108 , 109 , 110			
Standard Form Calculations	124 , 125 , 126 , 127			
Surds: The Basics - Simplifying, Multiplying, Dividing	112 , 113 , 114 , 115			
Surds: Expanding Brackets	116 , 117			
Surds: Rationalising the Denominator	118 , 119			
Forming Algebraic Expressions and Formulae	150 , 151 , 153 , 155			
Equations, Expressions, Identities and Formulae	154			
Simplifying Algebraic Expressions, including Brackets	157 , 158 , 159 , 160 , 161			
Expanding Double Brackets	162 , 163 , 164 , 165			
Expanding Triple Brackets	166			
Factorising Single Brackets	167 , 168 , 169			
Simplifying Expressions by Factorising	170 , 171			
Factorising Double Brackets: Quadratic Expressions	223 , 224 , 225 , 226 , 227 , 228			
Simplifying Expressions using the Index Laws	173 , 174 , 175			
Linear Sequences: n^{th} Term Rule	196 , 197 , 198			
Quadratic Sequences: n^{th} Term Rule	247 , 248 , 249 , 250			
Other Sequences: Fibonacci, Geometric, Recurrence	261 , 262 , 263 , 264			
Solving Linear Equations	179 , 180 , 181 , 182 , 183			
Solving Linear Equations: Unknown on Both Sides	184 , 185 , 186			
Forming and Solving Linear Equations	176 , 188			
Solving Quadratic Equations by Factorisation	230 , 231 , 232 , 233 , 234			
Solving Quadratic Equations using the Formula	241 , 242			
Rearranging Formulae	280 , 281 , 282 , 283 , 284			
Substitution into Equations and Formulae	189 , 278 , 279 , 287			
Linear Graphs: Drawing Straight Line Graphs	205 , 206			
Linear Graphs: Equation of a Straight Line, $y = mx + c$	207 , 208 , 209 , 210 , 211 , 212 , 213			
Midpoint and Gradient of a Line Segment	200 , 201 , 202 , 203 , 204			
Quadratic Graphs: Drawing Quadratic Graphs	251			
Quadratic Graphs: Properties of Quadratic Graphs	252 , 253 , 254 , 255 , 256 , 257			

Solving Linear and Quadratic Equations using Graphs	217 , 260			
Algebraic Proof	325 , 326			
Angles on Parallel Lines	481 , 482 , 483			
Solving Multi-Step Angle Problems	488 , 489 , 490 , 491			
Angles in Polygons (Interior and Exterior Angles)	561 , 562 , 563 , 564			
Forming and Solving Equations with Angles	487 , 565			
Compound and Algebraic Perimeter	551 , 552			
Area of Rectangles, Triangles, Trapezia, Parallelograms	555 , 556 , 558 , 559			
Circumference and Area of a Circle: The Basics	534 , 535 , 539 , 540			
Perimeter and Area of Semi-Circles and Quarter-Circles	536 , 541			
Circumference and Area of a Circle: Problem Solving	537 , 538 , 542 , 543			
Arc Length and Area of Circle Sectors	544 , 545 , 546 , 547			
Pythagoras' Theorem: The Basics (including with Surds)	498 , 499 , 500			
Pythagoras' Theorem: Problem Solving	501 , 502 , 503 , 504			
Trigonometry in Right-Angled Triangles: The Basics	508 , 509 , 510 , 511 , 512			
Trigonometry in Right-Angled Triangles: Problem Solving	513 , 514 , 515			
3D Pythagoras' Theorem and Trigonometry	505 , 506 , 507			
Volume of Prisms and Cylinders: The Basics	569 , 571 , 572			
Volume of Prisms and Cylinders: Problem Solving	573 , 574 , 575			
Similar Shapes: Lengths - The Basics	609 , 610 , 611 , 612 , 613			
Similar Shapes: Areas and Volumes - The Basics	615 , 616 , 618 , 619 , 620			
Similar Shapes: Problem Solving	614 , 617 , 621			
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Constructions and Loci	NEW 659 - 679			
Transformations	NEW 637 - 658			
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Experimental Probability (Relative Frequency)	355 , 356 , 357			
Combined Event Probability (Sample Space Diagrams)	358 , 359			
Mutually Exclusive and Independent Events	354 , 360			
Probability Tree Diagrams	355 , 356 , 357			
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Algebraic Fractions (including Solving Equations)	172 , 187 , 229 , 244			
Simultaneous Linear Equations	190 , 191 , 192 , 193 , 194			
Forming and Solving Simultaneous Linear Equations	195			
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Linear Graphs: Parallel and Perpendicular Lines	214 , 215 , 216			
Linear Graphs: Using the form $ax + by + c = 0$	220			
Quadratic Equations: Completing the Square	235 , 236 , 237 , 238 , 239 , 256			
Quadratic Equations and Graphs: Using the Discriminant	243 , 258			
Forming and Solving Quadratic Equations	244			
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Rearranging Formulae: Advanced	285 , 286			
Functions: Basic Notation, Domain and Range	288 , 289 , 290 , 291 , 292			
Functions: Inverse and Composite Functions	293 , 294 , 295 , 296 , 297			
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Sine Rule: The Basics	521 , 522 , 523 , 524 , 525			
Cosine Rule: The Basics	527 , 528 , 529 , 530			
Sine and Cosine Rules: Problem Solving	532 , 533			
Volume of Cones, Spheres and Pyramids: The Basics	576 , 577 , 578 , 579 , 580 , 581			
Advanced Volume: Problem Solving	582 , 583			
Circle Theorems: Angles inside a Circle	593 , 594 , 595 , 596 , 597			
Circle Theorems: Tangents and Chords	598 , 599 , 600 , 601 , 602			
Circle Theorems: Problem Solving	603 , 604 , 605 , 606			

Doing a task

Watch the video carefully taking the best notes you can. Use lots of colour and work hard to follow each example. Replay anything you might be unsure of.

The screenshot shows a math task interface with several sections:

- quadratic expressions 6**: $Bx^2 + 10x + 3$
- Factorise quadratic expressions 6**: Learn how to factorise complex quadratic expressions in the form $ax^2 + bx + c$, where a , b and c are integers.
- Building blocks**:
 - Expand double brackets 1**: $(3x + 5)(4x - 8)$
 - Factorise completely**: $16x^2 - 16xy$
 - Expand double brackets 2**
 - Factorise single expressions 2**

Work on your **Building blocks**. If you struggle with the video then improving these will help you access the task better. Aim to make all building blocks 100%.

Did you understand the video?

No

Yes

Do quiz