







GCSE Mathematics







Revision List (Higher)

Paper 1 - Non-Calculator

Paper 2 & 3 - Calculator

Topic List	Hegarty Maths Clip Numbers			
Basic Skills				
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			
Number				
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			
Algebra				
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			

Topic List	Hegarty Maths Clip Numbers			
Algebra (continued)				
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			
Geometry and Measures				
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			
Probability				
Single Event Probability	350 , 351 , 352 , 353			
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			
Probability Tree Diagrams: Conditional Probability	358 , 359 , 360			

Topic List	Hegarty Maths Clip Numbers			
Probability (continued)				
Frequency Tree Diagrams	368 , 369			
Introduction to Set Theory: Set Notation	370 , 371			
Sets and Venn Diagrams	372 , 373 , 374 , 375 , 376			
Probability from Venn Diagrams	383 , 384			
Extension Section				
Algebra: Extension Topics				
Algebraic Fractions (including Solving Equations)	172 , 187 , 229 , 244			
Simultaneous Linear Equations	190 , 191 , 192 , 193 , 194			
Forming and Solving Simultaneous Linear Equations	195			
Solving Simultaneous Linear Equations using Graphs	218 , 219			
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			
Simultaneous Equations involving a Quadratic Equation	245 , 259			
Linear Inequalities: Representing on a Number Line	265 , 266 , 267 , 268			
Solving Linear Inequalities	269 , 270 , 271 , 272			
Linear Inequalities: Regions on a Graph	273 , 274 , 275 , 276			
Quadratic Inequalities	277			
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			
Geometry and Measures: Extension Topics				
Trigonometry in Non-Right Angled Triangles: $\frac{1}{2}ab\sin C$	517 , 518 , 519			
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			
Probability: Extension Topics				
Advanced Conditional Probability	367 , 389 , 390 , 391			
Advanced Probability from Venn Diagrams	385 , 386 , 387 , 388			