**HIGHER TIER**

**PAPER 1 – Friday 20th May 2022 (non-calculator)**

**PAPER 2 – Tuesday 7th June 2022 (calculator)**

**PAPER 3 – Monday 13th June 2022 (calculator)**

**How to revise for your maths exams**

Maths is a subject that you can’t just read about it to revise it. You must DO some maths.

Hegarty is perfect for this as it shows you how to do it, provides questions for you to try and then marks your answer. We have provided you with an exercise book for you to use for working out. You have also been given a maths revision guide and workbook.

**When to revise for your maths exams**

The maths department want you to start following this revision schedule from **Monday 14th March until Saturday 7th May**. This will then allow plenty of time for you to practice exam papers before the exams start.

**What topics to revise**

The topics listed in this document have been provided by the exam board. They WILL be on the exams. We want you to focus on revising these topics.

**Too many things to revise**

You do not need to do all of the tasks for each topic when there are a lot of them, but we recommend you do at least watch all the video clips and attempt some of the tasks.

**RAG**

Each day you should RAG how well you have done overall on each topic. This will allow you to keep track of what you did well on and what you need to work on before the exams.

**What to do after 7th May**

If you follow this schedule you will have covered the topics the exam board has recommended by the 7th May.

Your maths revision between then and the last paper should focus on exam-style questions and past exam papers.

Use the links to the free resources below to support with this.

**Exam-style Questions – by topic**

[www.mathsgenie.co.uk/gcse.html](http://www.mathsgenie.co.uk/gcse.html)

**Past papers with solutions (Edexcel are the exam board we use)**

[www.mathsgenie.co.uk/papers.html](http://www.mathsgenie.co.uk/papers.html)

**Number**

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| --- | --- | --- | --- | --- | --- |
| **Date** | **Topics** | **Clip Number** | **R** | **A** | **G** |
| Monday 14th March | Negative number | 38 – 44 |  |  |  |
| Fraction of an amount | 77 |  |  |  |
| Tuesday 15th | Fraction arithmetic | 65 – 70, 80 |  |  |  |
| Recurring decimal to fraction | 53, 54 |  |  |  |
| Wednesday 16th | Product of prime factors | 29, 30, 32, 35 |  |  |  |
| Laws of indices | 102 – 110 |  |  |  |
| Thursday 17th  | Negative and fractional indices | 104 – 110 |  |  |  |
| Simplification of surds | 113 – 119 |  |  |  |
| Friday 18th  | Conversion | 122, 123, 124 |  |  |  |
| Calculation | 125, 126, 127 |  |  |  |
| Saturday 19th | Error interval | 774 – 777 |  |  |  |
| Bounds | 137, 138, 139 |  |  |  |
| Sunday 20th | Use of a calculator | 129 |  |  |  |
| Product rule for counting | 671, 672, 673 |  |  |  |

**Algebra**

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|  | **Topics** | **Clip Number** | **R** | **A** | **G** |
| Monday 21st | Simplification | 156 – 159  |  |  |  |
| Expansion of bracket | 160, 161 |  |  |  |
| Tuesday 22nd | Factorisation | 168 – 171, 223 – 228 |  |  |  |
| Wednesday 23rd | Laws of indices | 173, 174, 175 |  |  |  |
| Substitute values | 278, 279, 780 – 789 |  |  |  |
| Thursday 24th | Change subject of a formula | 280 – 287 |  |  |  |
| Forming an expression | 151, 152, 153 |  |  |  |
| Friday 25th | Expansion of brackets | 162 – 166 |  |  |  |
| Difference of two squares | 165, 224, 225 |  |  |  |
| Saturday 26th | Algebraic fractions | 159, 170, 172, 229 |  |  |  |
| Linear equation | 177 – 189 |  |  |  |
| Sunday 27th | Form an equation | 176 |  |  |  |
| Set up and solve equation | 188 |  |  |  |
| Monday 28th | Linear inequality | 265 – 272 |  |  |  |
| Quadratic equation | 230 – 234, 238 – 242, 244, 245 |  |  |  |
| Tuesday 29th | Quadratic inequality | 277 |  |  |  |
| Equations of parallel lines | 214 |  |  |  |
| Equation of a tangent to a circle | 320 |  |  |  |
| Wednesday 30th | Simultaneous equations linear/quadratic | 190 – 195, 218, 219, 246, 259 |  |  |  |

**Algebra (continued)**

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|  | **Topics** | **Clip Number** | **R** | **A** | **G** |
| Thursday 31st | Coordinates | 199, 200 |  |  |  |
| Quadratic graph | 251 – 257, 260 |  |  |  |
| Friday 1st April | Gradient of a straight line graph | 201 – 204, 207, 210 |  |  |  |
| Gradients of parallel and perpendicular lines | 214, 215 |  |  |  |
| Saturday 2nd | Speed-time graph | 880 – 886 |  |  |  |
| Sunday 3rd | Gradient of a curve | 887 – 890 |  |  |  |
| Transformations of functions | 307 – 313  |  |  |  |
| Monday 4th | Graphs of trigonometric functions | 303 – 306 |  |  |  |
| Inverse and composite functions | 293 – 297 |  |  |  |

**Ratio, proportion, and rates of change**

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|  | **Topics** | **Clip Number** | **R** | **A** | **G** |
| Tuesday 5th | Time | 709, 710, 711 |  |  |  |
| Area | 700, 701 |  |  |  |
| Wednesday 6th | Percentage of an amount | 84, 85, 86 |  |  |  |
| Percentage decrease | 90, 91, 92, 97 |  |  |  |
| Thursday 7th | Depreciation | 95, 808 – 811 |  |  |  |
| Reverse percentage | 96 |  |  |  |
| Friday 8th | Write as a ratio | 328, 329 |  |  |  |
| Use of ratio | 335 – 338  |  |  |  |
| Saturday 9th | 1 : *n* form | 331 |  |  |  |
| Share in a ratio | 332 – 335 |  |  |  |
| Ratio to fraction | 330 |  |  |  |
| Monday 10th & Tuesday 11th | Direct proportion | 339, 340, 341, 343, 344, 345, 348, 739 – 742 |  |  |  |
| Wednesday 12th | Currency conversion | 707, 708 |  |  |  |
| Inverse proportion | 342, 346, 347, 348 |  |  |  |
| Thursday 13th | Equations of proportion | 343 – 347 |  |  |  |
| Friday 14th | Average speed | 716 – 724, 876, 877 |  |  |  |
| Saturday 15th | Density | 725 – 733 |  |  |  |
| Sunday 16th | Pressure | 734 – 737 |  |  |  |
| General iterative processes | 322 |  |  |  |

**Geometry and measures**

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|  | **Topics** | **Clip Number** | **R** | **A** | **G** |
| Monday 17th | Transformations | 637 – 657 |  |  |  |
| Angles in a polygon | 560 – 565 |  |  |  |
| Tuesday 18th | Circle theorems | 593 – 606, 816 – 820 |  |  |  |
| Area of a rectangle | 554, 555 |  |  |  |
| Wednesday 19th | Area of a triangle | 557, 558 |  |  |  |
| Area of a trapezium | 559 |  |  |  |
| Thursday 20th | Area of a sector | 546, 547 |  |  |  |
| Surface area of a cuboid | 584, 589, 590 |  |  |  |
| Friday 21st | Volume of a cube | 568, 569, 583 |  |  |  |
| Volume of composite solid | 582 |  |  |  |
| Saturday 22nd | Similar triangles | 611, 612, 613 |  |  |  |
| Pythagoras’s Theorem | 497 – 507 |  |  |  |
| Sunday 23rd | Trigonometry | 508 – 515 |  |  |  |
| Sine and Cosine Rules | 521 – 533 |  |  |  |
| Monday 24th | Trigonometry in 3-D | 854 – 863 |  |  |  |
| Exact trigonometric values | 845 |  |  |  |
| Tuesday 25th | Column vectors | 623 – 627 |  |  |  |
| Vector geometry | 628 – 636 |  |  |  |

**Probability**

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|  | **Topics** | **Clip Number** | **R** | **A** | **G** |
| Wednesday 26th | Probability | 351 – 359 |  |  |  |
| Thursday 27th | Venn diagram | 372 – 380 |  |  |  |
| Friday 28th | Probability from a Venn diagram | 383 – 388, 391 |  |  |  |
| Saturday 29th | Independent combined events | 360 – 363 |  |  |  |
| Dependent combined events | 364 – 367 |  |  |  |

 **Statistics**

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|  | **Topics** | **Clip Number** | **R** | **A** | **G** |
| Sunday 30th  | Frequency polygon | 441 |  |  |  |
| Cumulative frequency graph | 437 – 440 |  |  |  |
| Monday 1st May | Box plot | 434, 435, 436, 440 |  |  |  |
| Tuesday 2nd | Histogram | 442 – 449 |  |  |  |
| Wednesday 3rd | Mean | 405 – 408, 417 – 421 |  |  |  |
| Thursday 4th | Lower and upper quartiles | 411 |  |  |  |
| Inter-quartile range | 412 |  |  |  |
| Friday 6th | Compare distributions | 432, 433, 436, 439 |  |  |  |
| Saturday 7th | Capture-recapture method | 872, 873 |  |  |  |