



| Subject                      | Mathematics - Foundation |                   |                              |
|------------------------------|--------------------------|-------------------|------------------------------|
| Title/Topic                  | Format                   | Length            | Date & Time                  |
| Paper 1 – Non-Calculator     | Written Exam             | 1 hour 30 minutes | Tue 22 November<br>Afternoon |
| Paper 2 – Calculator Allowed | Written Exam             | 1 hour 30 minutes | Fri 25 November<br>Afternoon |

### My Advent assessment will test my knowledge on...

Students in **11X4, 11X5, 11Y3, 11Y4** will sit the foundation tier papers. Below is a list of topics that will be tested across both papers. The number to right is the Hegarty clip.

#### Algebra

|                                                       |             |
|-------------------------------------------------------|-------------|
| Substitute into a complex formula                     | 278         |
| Angles on a straight line, angles around a point      | 478,814     |
| Solve 2-step equations (involving multiplication)     | 179         |
| Geometric sequences                                   | 264         |
| Perimeter                                             | 552         |
| Change the subject of the formula (2-step)            | 281         |
| Set-up and solve equations, substituting and solving  | 188,189     |
| Straight line graphs                                  | 209,213     |
| Multiplying by powers of 10                           | 15          |
| Simplify expressions with multiplication and division | 158,159,156 |
| Solve 2-step equations (involving multiplication)     | 179         |
| Linear sequences, set-up and solve equations          | 197,188     |
| Factorise simple expressions                          | 169         |
| Substitution                                          | 783         |
| Factorise simple expressions                          | 168         |
| Writing algebraic expressions                         | 151         |
| Change the subject of a formula                       | 281         |
| Straight line graphs                                  | 212         |

#### Probability

|                                       |         |
|---------------------------------------|---------|
| Counting sets using Venn diagrams     | 379,383 |
| Relative frequency                    | 357     |
| Venn diagrams for probability         | 383     |
| Probability of an event not happening | 353     |
| Two-way tables                        | 422     |
| Frequency trees                       | 368     |
| Counting sets using Venn diagrams     | 379,383 |
| Relative frequency                    | 356,357 |
| Probability of single events          | 351     |
| Probability of single events          | 352     |

#### Statistics

|                                     |     |
|-------------------------------------|-----|
| Critique a bar chart                | 425 |
| Bar charts and vertical line graphs | 425 |
| Scatter diagrams                    | 453 |
| Range                               | 410 |
| Read and interpret pictograms       | 426 |
| Read and interpret pictograms       | 426 |



### Geometry

|                                                 |         |
|-------------------------------------------------|---------|
| Scale diagrams with bearings                    | 869     |
| Set-up and solve equations                      | 188     |
| Circumference and arc length                    | 536     |
| Corresponding angles                            | 483     |
| Volume of cuboids                               | 568     |
| Describe transformations                        | 651     |
| Trigonometry (find angle)                       | 511     |
| 3D shapes                                       | 830     |
| Translations                                    | 637     |
| Pythagoras (longer side)                        | 498     |
| Pythagoras (longer side)                        | 498     |
| Scale diagrams with bearings                    | 869     |
| Volume of a sphere, Conversions problem solving | 580,715 |

### Number

|                                                             |              |
|-------------------------------------------------------------|--------------|
| Standard form to ordinary                                   | 123          |
| Factors of a number                                         | 27           |
| Convert fractions to decimals, compare decimal numbers      | 73,46        |
| Frequency trees                                             | 368          |
| Division with decimal numbers                               | 49           |
| Convert simple decimals to fractions                        | 52           |
| Square roots, index form                                    | 101,102      |
| Read and write positive integers                            | 13           |
| Income and rates of pay                                     | 755          |
| Fractions to decimal conversions                            | 48,68,73     |
| Multiple of a number                                        | 33           |
| Order of operations with positive integers                  | 24           |
| Money                                                       | 745          |
| Adding and subtracting positive and negative numbers        | 41           |
| Ordinary to standard form                                   | 122          |
| Operations with negative numbers, proof and counterexamples | 41,42,43,324 |
| Multiplication with decimals                                | 48           |

### Ratio

|                                                         |             |
|---------------------------------------------------------|-------------|
| Write ratios as fractions/proportions                   | 330         |
| Scale diagrams with bearings                            | 869         |
| Express one number as a fraction of another             | 62          |
| Income and rates of pay                                 | 755         |
| Converting length                                       | 692         |
| Converting time (worded problems)                       | 711,710     |
| Share in a given ratio                                  | 333         |
| Share in a given ratio, money problem solving           | 332,753     |
| Share in a given ratio, fractions of an amount          | 333,77      |
| Converting time (worded problems)                       | 711         |
| Two-way tables                                          | 423         |
| Metric and imperial conversions                         | 705         |
| Find percentages of amounts                             | 85,86       |
| Area (counting squares), writing and simplifying ratios | 553,328,329 |
| Two-way tables                                          | 422         |
| Direct proportion                                       | 341         |



### What should I do to revise and prepare for this assessment?

To prepare for this assessment:

1. Study carefully the topic list provided for you above. **Work through each of the Hegarty tasks** that are given next to each topic. Watch the Hegarty lesson video, then attempt the practice questions on-line.
2. Complete the weekly past paper tasks as part of **Project 25**. It is important you attempt all questions, check your answers using the available mark scheme and then write in any corrections from the mark scheme with your red pen. Record your performance on the summary sheet in your booklet, marking on any questions you want your teacher to review or revisit.
3. **Complete your revision workbook** that your teacher has provided you. You should work through all the questions in your revision workbook, checking your work using the answers provided. You could ask your parent or relative to check your work with you, and discuss the areas you need to revisit. This revision workbook must be **completed in full and handed in to your teacher** for checking the day of your first assessment.
4. **Study the knowledge organisers** booklet provided to you. You should use the technique of '**look, cover, check**' to ensure you can recall all of the key facts and techniques for the identified topics.
5. **Listen attentively during your Immersion Revision Session** which will take place in your Project 25 Friday lessons over the next five weeks. Your teacher will provide you with a number of key tips to help you succeed. They will revisit the topics listed above.

### What useful websites/resources could I use to help me prepare?

Project 25 Papers – Found in your workbook.  
Revision Booklet to be handed to you by your teacher.

You can access revision lessons on Hegarty Maths. Use the reference numbers above to search for the relevant tasks. Your teacher may set you specific tasks to complete as part of your homework.

<https://www.hegartymaths.com>