



|                    |                                    |               |
|--------------------|------------------------------------|---------------|
| <b>Subject</b>     | Maths – Foundation and Higher tier |               |
| <b>Title/Topic</b> | <b>Format</b>                      | <b>Length</b> |
| Paper 1            | Non Calculator                     | 1hr 30        |
| Paper 2            | Calculator                         | 1hr 30        |

### In this Advent assessment I will be asked to show I can...

#### Foundation

|                                                         |                                                  |
|---------------------------------------------------------|--------------------------------------------------|
| Finding the lowest common multiple (LCM)                | Prime factor decomposition                       |
| Calculating with roots and powers                       | Expanding single brackets                        |
| Calculating with and ordering integers                  | Recognising types of graphs                      |
| Estimating and measuring                                | Mean, median, mode and range                     |
| Understanding, measuring and drawing angles             | Dividing with mixed numbers                      |
| Finding areas using grids                               | Using probability phrases                        |
| Area and perimeter                                      | Sample space diagrams                            |
| Multiplying and dividing with negative numbers          | Converting units of length, mass and capacity    |
| Calculating with roots and powers                       | Sequences                                        |
| Constructing fractions, Simplifying fractions           | Distance-time graphs                             |
| Adding and subtracting decimals                         | Time                                             |
| Converting between mixed numbers and improper fractions | Rates of change                                  |
| Drawing and interpreting pictograms                     | Angles in triangles                              |
| Substituting into algebraic formulae                    | Simplifying expressions using index laws         |
| Solving equations                                       | Simplifying expressions by collecting like terms |
| Converting between fractions, decimals and percentages  | Reading and drawing inequalities on number lines |
| BIDMAS                                                  | Substituting into expressions                    |
| Converting units of length, mass and capacity           | Understanding and ordering decimals              |
| Percentage change                                       | Angles on parallel lines                         |
| Equivalent ratios                                       | Using algebraic notation                         |
| Drawing bar charts                                      | Constructing and solving simultaneous equations  |
| Write numbers as percentages of other numbers           | Area and perimeter of compound shapes            |
| Calculating with speed                                  | Growth and decay                                 |
| Angles on a line and around a point                     | Finding the surface area of cubes and cuboids    |
| Forming and solving equations                           | Plotting graphs of quadratic functions           |
| Prime numbers                                           | Interpreting pie charts                          |
| Share amounts in a given ratio                          | Finding unknown sides in right-angled triangles  |
| Fractions of amounts                                    | Estimating calculations                          |
| Scatter graphs                                          | Factorising and solving quadratic expressions    |

#### Higher



|                                                |                                                        |
|------------------------------------------------|--------------------------------------------------------|
| Multiplying and dividing decimals              | Algebraic fractions                                    |
| Solving single inequalities                    | Speed, distance time                                   |
| Calculating with fractions                     | Interpreting equations of straight line graphs         |
| Averages                                       | Converting between fractions, decimals and percentages |
| Angles on a line and about a point             | Scale diagrams                                         |
| Finding prime numbers                          | Growth and decay including compound interest           |
| Share amounts in a given ratio                 | Volume and surface area of cubes and cuboids           |
| Find fractions of amounts without a calculator | Plotting graphs of quadratic functions                 |
| Prime factor decomposition                     | Interpreting pie charts                                |
| Expanding single brackets                      | Finding unknown sides in right-angled triangles        |
| Graphs of reciprocal functions                 | Estimating calculations                                |
| Forming and solving equations                  | Calculating experimental probabilities                 |
| Set notation                                   | Reverse percentages                                    |
| Standard form                                  | Percentages of amounts                                 |
| Calculating Range, Calculating Median          | Interpreting histograms                                |
| Similarity and congruence                      | Drawing box plots                                      |
| Angles in parallel lines                       | Pythagoras' theorem                                    |
| Simultaneous equations                         | Solving equations                                      |
| Surface area                                   | Plans and elevations                                   |
| Estimating roots and powers                    | Enlargements                                           |
| Using the product rule for counting            | Sine and cosine rule                                   |
| Completing the square                          | Calculating bearings                                   |
| Calculating with surds                         | Expanding double brackets                              |
| Converting recurring decimals to fractions     | Calculating the equation of a straight line            |
| Equations of parallel and perpendicular lines  | Bounds                                                 |
| Exact trig values                              | Adding and subtracting algebraic fractions             |
| Circumference of circles                       |                                                        |

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



- Use the revision technique showed to you in class to create purposeful flashcards.
- Use the Leitner System to self test these flashcards until you can remember all of them. Here is a link to a video on the Leitner System: [Leitner System for Flashcards \(youtube.com\)](https://www.youtube.com/watch?v=LeitnerSystem)
- Use the grid on the back of your Project 25 papers that you have completed this year and use the Sparx codes next to the questions you got wrong to go over these topics.
- Once you have done some revision on the areas from the project 25 paper that you struggled with you can re-do the paper to see if you improve your score.
- Complete the target and XP boost homework on Sparx, in addition to the compulsory homework.
- If you have a revision workbook, you can work through the topics.

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

SparxMaths and CorbettMaths are the best websites to revise for Maths, particularly SparxMaths.

Use Project 25 papers, past papers, revision guides and flashcards alongside all your work booklets as revision material.