



## A Star Equivalency Test – Maths Higher Exam Content Guide

| <b>Number</b>                        | <b>Graphs</b>                                |
|--------------------------------------|--|
| Types of Number and BODMAS           | Coordinates and Midpoints                    |
| Multiples, Factors and Prime Numbers | Using $y = mx + c$                           |
| LCM and HCF                          | Drawing Straight-Line Graphs                 |
| Fractions                            | Coordinates and Ratio                        |
| Fractions, Decimals and Percentages  | Parallel and Perpendicular Lines             |
| Fractions and Recurring Decimals     | Quadratic Graphs                             |
| Rounding Numbers                     | Solving Equations with Graphs                |
| Estimating                           | Graph Transformations                        |
| Bounds                               | Distance–Time Graphs                         |
| Standard Form                        | Velocity – Time Graphs                       |
| Fraction Problems                    |  |
|                                      |  |
| <b>Algebra</b>                       | <b>Ratio, Proportion and Rates of Change</b> |
| Powers and Roots                     | Ratios                                       |
| Multiplying out Brackets             | Direct & Inverse Proportion                  |
| Factorising                          | Percentages                                  |
| Manipulating Surds                   | Compound Growth and Decay                    |
| Solving Equations                    | Unit Conversations                           |
| Rearranging Formulas                 | Speed, Density and Pressure                  |
| Factorising Quadratics               |  |
| The Quadratic Formula                | <b>Geometry and Measures</b>                 |
| Completing the Square                | Geometry                                     |
| Algebraic Fractions                  | Parallel Lines                               |
| Sequences                            | Polygons                                     |
| Inequalities                         | Triangles and Quadrilaterals                 |
| Iterative Methods                    | Circle Geometry                              |
| Simultaneous Solutions               | Congruent Shapes                             |
| Proof                                | Similar Shapes                               |
| Functions                            | The Four Transformations                     |
|                                      | Area – Triangles, Quadrilateral and Circles  |
|                                      | 3D Shapes - Surface Area and Volume          |
|                                      | Enlargement and Projections                  |
|                                      | Loci and Constructions                       |
|                                      | Bearings                                     |
|                                      |  |



| <b>Pythagoras' Theorem &amp; Trigonometry</b> | <b>Probability and Statistics</b> |
|---|-----------------------------------|
| Pythagoras' Theorem                           | Probability Basics                |
| Trigonometry – Sin, Cos, Tan                  | Probability Experiments           |
| Trigonometry – Common Values                  | The AND / OR Rules                |
| 3D Trigonometry                               | Tree Diagrams                     |
| 3D Pythagoras                                 | Conditional Probability           |
| Vectors                                       | Sets and Venn Diagrams            |
|   | Sampling and Data Collection      |
|   | Mean, Median, Mode and Range      |
|   | Frequency / Grouped Frequency     |
|   | Box Plots                         |
|   | Cumulative Frequency              |
|   | Histograms and Frequency Density  |
|   | Scatter Graphs                    |
|   | Comparing Data Sets               |
|   |                                   |



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