



A Star Equivalency Test – Maths Foundation Exam Content Guide

Number	Graphs
Types of Number and BODMAS	Coordinates and Midpoints
Multiplying and Dividing by 10, 100, etc	Straight- Line Graphs
Multiplying and Dividing Whole Numbers	Drawing Straight-Line Graphs
Multiplying and Dividing with Decimals	Straight Line Graphs: Gradients
Negative Numbers	Straight Line Graphs: $y = mx + c$
Prime Numbers	Using $y = mx + c$
Multiples, Factors and Prime Numbers	Quadratic Graphs
LCM & HCF	Solving Equations with Graphs
Fractions without a Calculator	Distance–Time Graphs
Fraction Problems	Travel Graphs
Fractions, Decimals and Percentages	Midpoints of Line Segments
Rounding Numbers	
Estimating	Ratio, Proportion and Rates of Change
Rounding Errors	Ratios
Powers	Direct Proportion
Roots	Inverse Proportion
Standard Form	Percentages
	Compound Growth and Decay
Algebra	Unit Conversations
Algebra – Simplifying	Area and Volume Conversions
Algebra – Multiplying and Dividing	Time Intervals
Multiplying Double Brackets	Speed, Density and Pressure
Factorising	
Solving Equations	Shapes and Area
Expressions, Formulas and Functions	Properties of 2D shapes
Formulas and Equations from Words	Congruence Shapes
Formulas and Equations from Diagrams	Similar Shapes
Rearranging Formulas	The Four Transformations
Sequences	Perimeter and Area
Inequalities	Perimeter and Area - Circles
Quadratic Equations	3D Shapes
Simultaneous Equations	3D Shapes - Surface Area
Proof	3D Shapes - Volume
	Projections



Angles and Geometry	Probability and Statistics
Angle Basics	Probability Basics
Five Angles Rules	Probability Experiments
Parallel Lines	The AND / OR Rules
Geometry Problems	Tree Diagrams
Angles in Polygons	Sets and Venn Diagrams
Triangle Constructions	Sampling and Bias
Loci and Constructions	Collecting Data
Bearings	Mean, Median, Mode and Range
Map and Scale Drawings	Simple Charts and Graphs
Pythagoras' Theorem	Pie Charts
Trigonometry – Sin, Cos, Tan, Common Values	Scatter Graphs
Vectors	Frequency / Grouped Frequency
	Interpreting Data
	Comparing Data Sets

