

**Maths summary for year 10 higher**

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| Topic | Mathswatch clip or lesson video link |
| Dividing Decimals | MW 67 |
| Listing Strategies | MW 69 |
| Reciprocals | MW 76 |
| Product of Primes | MW 78 |
| HCF and LCM | MW 79, 80 |
| Standard Form | MW 83 |
| Change to a Percentage (Calc.) | MW 88 |
| Change to a Percentage (Non-Calc.) | MW 89 |
| Estimating Answers | MW 91 |
| Introduction to Bounds  Error Intervals  Upper and Lower Bounds | MW 132  MW 155  MW 206 |
| Negative Indices | MW 154 |
| Fractional Indices | MW 188 |
| Surds - Introduction to Surds  Surds - Rationalising the Denominator | MW 207a, 207b  MW 207c |
| Nth term of linear and quadratic sequence | <https://www.loom.com/share/8c8fda1589e24860b9f9cd453e362cde> |
| Fibonacci Sequences | MW 141 |
| Sketching Functions  Drawing quadratics graphs | MW 99  MW 98 |
| Midpoint of a Line on a Graph | MW 133 |
| The Gradient of a Line  Finding the Equation of a Straight Line - Gradient and Coordinates  Perpendicular Lines | MW 97  MW 159a,b  MW 208 |
| Simultaneous Equations Graphically  Simultaneous Equations Algebraically | MW 140  MW 162 |
| Forming Formulae and Equations | MW 137 |
| Inequalities on a Number Line | MW 138 |
| Solve Linear Inequalities | MW 139 |
| Regions | MW 198 |
| Factorising and Solving Quadratics  The Difference of Two Squares  Factorising Hard Quadratics  Solving Quadratics with the Formula  Completing the Square – Basics  Completing the Square – Sketching  Roots and Turning Points of Quadratics | MW 157  MW 158  MW 192  MW 191  MW 209a  MW 209c  MW 160 |
| Multiplying three brackets | MW 178 |
| Rearranging difficult Formulae | MW 190 |
| Algebraic Fractions - Simplifying | MW 210a |
| Algebraic Fractions - Solving | MW 210b |
| Simultaneous Equations with a Quadratic | MW 211 |
| Solve Quadratic Inequalities | MW 212 |
| Algebraic Proof | MW 193 |
| Recurring Decimals - Proof | <https://www.loom.com/share/58457d64fe0b4872bc8b5c144d8e1820> |
| Exchanging Money | MW 105 |
| Ratios, Fractions and Graphs | MW 107 |
| Percentage Change | MW 109 |
| Reverse Percentage Problems | MW 110 |
| Simple Interest | MW 111 |
| Compound Units | MW 142 |
| Distance-Time Graphs | MW 143 |
| Similar Shapes | MW 144 |
| Compound Interest and Depreciation | MW 164 |
| Plans and Elevations | MW 51 |
| Volume of a Prism | MW 119 |
| Angles and Parallel Lines | MW 120 |
| Angle Sum of Polygons | MW 123 |
| Bearings | MW 124 |
| Bisecting an Angle | MW 145 |
| Constructing Perpendiculars - Bisecting a Line | MW 146a |
| Constructing Perpendiculars - From any Point | MW 146b |
| Draw a Triangle Using Compasses | MW 147 |
| Enlargements | MW 148 |
| Tangents, Arcs, Sectors and Segments | MW 149 |
| Pythagoras' Theorem - A Simple Approach | MW 150a |
| Sectors of a Circle | MW 167 |
| Trigonometry | MW 168 |
| Spheres | MW 169 |
| Pyramids | MW 170 |
| Cones | MW 171 |
| Frustums | MW 172 |
| Enlargement - Negative Scale Factor | MW 181b |
| Combinations of Transformations | MW 182 |
| Circle Theorems | MW 183 |
| Proof of Circle Theorems | MW 184 |
| Similarity - Area and Volume | MW 200 |
| The Sine Rule | MW 201 |
| The Cosine Rule | MW 202 |
| Area of a Triangle Using Sine | MW 203 |
| Pythagoras in 3D | MW 217 |
| Trigonometry in 3D | MW 218 |
| Venn Diagrams - Notation | MW 127b |
| Representing Data - Pie Charts | MW 128a |
| Representing Data - Stem and Leaf Diagrams | MW 128b |
| Averages from a table - Basics | MW 130a |
| Estimate for the Mean | MW 130b |
| Harder Tree Diagrams | MW 175 |
| Probability using Venn Diagrams | MW 185 |
| Cumulative Frequency | MW 186 |
| Boxplots | MW 187 |
| And and Or Probability Questions | MW 204 |
| Histograms | MW 205 |