

Year 10 Higher

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Topic	Link on Corbett Maths
Algebra - Quadratic Equations <ul style="list-style-type: none"> Draw graphs of quadratics such as $y = x^2 + 2x + 1$ Use a graph to estimate x – and y – values, giving answers to an appropriate degree of accuracy Draw graphs of harder quadratics such as $y = 2x^2 - 7x + 5$ Factorise an expression such as $x^2 - 5x + 14$ or $x^2 - 9$ Solve an equation such as $x^2 - 5x + 14 = 0$ Factorise an expression such as $3x^2 + 7x + 2$ or $3x^2 - 27$ Solve problems using equations that factorise such as $3x^2 + 7x + 2 = 0$, including those that require rearrangement Solve problems using equations such as $2x^2 - 6x + 1 = 0$ by using the quadratic formula Find approximate solutions to equations such as $x^2 + 3x + 2 = 5$ by graphical methods Recognise the difference of 2 squares and factorise expressions in this form. Solve problems using equations such as $3/(x-2) + 4/(x-1) = 2$ identify and interpret roots, intercepts and turning points of quadratic functions graphically; deduce roots algebraically {and turning points by completing the square} Algebra - Simultaneous Equations <ul style="list-style-type: none"> Solve a pair of simultaneous equations such as $x + 3y = 9$ and $3x - 2y = 5$ Solve a pair of linear equations graphically; identifying the point of intersection as the solution Solve a pair of simultaneous equations such as $y = 4x + 5$ and $y = x^2$ Find the points of intersection of a linear and a quadratic equation; recognising that the solution could be found from the points of intersection of the graphs Ratio, Proportion and rates of change – Similarity <ul style="list-style-type: none"> Compare the area of an enlarged shape with the original area Find the ratio of the corresponding lengths in similar shapes and identify this as the SF of enlargement Use ratios in similar shapes to find missing lengths Compare lengths, areas and volumes using ratio notation and/or scale factors; make links to similarity (including trigonometric ratios) Compare lengths, areas and volumes of enlarged shapes Use the effect of enlargement on perimeter, area and volume in calculations Statistics - Scatter graphs <ul style="list-style-type: none"> Consider outliers when calculating the range of a distribution Draw a scatter graph by plotting points on a graph Draw a line of best fit on the scatter graph Interpret the scatter graph & interpret the line of best fit Identify the type and strength of the correlation <p>Know that correlation does not imply causation</p>	Algebra - Quadratic Equations <p>Factorising https://corbettmaths.com/wp-content/uploads/2013/02/solving-quadratics-by-factorising-1-pdf.pdf</p> <p>Drawing https://corbettmaths.com/wp-content/uploads/2019/06/Drawing-Quadratics.pdf</p> <p>Sketching https://corbettmaths.com/wp-content/uploads/2019/04/Sketching-Quadratics.pdf</p> <p>Completing the square https://corbettmaths.com/wp-content/uploads/2013/02/solving-using-completing-the-square-pdf.pdf</p> <p>Solving graphically https://corbettmaths.com/wp-content/uploads/2019/01/Solving-Quadratics-Graphically-pdf-1.pdf</p> Algebra - Simultaneous Equations <p>https://corbettmaths.com/wp-content/uploads/2019/04/Simultaneous-Equations.pdf</p> <p>https://corbettmaths.com/wp-content/uploads/2013/02/simultaneous-equations-pdf.pdf</p> <p>https://corbettmaths.com/wp-content/uploads/2019/07/Graphical-Simultaneous-pdf.pdf</p> <p>https://corbettmaths.com/wp-content/uploads/2013/02/advanced-simultaneous-equations-pdf.pdf</p> Ratio, Proportion and rates of change – Similarity <p>https://corbettmaths.com/wp-content/uploads/2019/03/Similar-Shapes-pdf.pdf</p> <p>https://corbettmaths.com/wp-content/uploads/2013/02/similar-shapes-area-volume-pdf.pdf</p> <p>https://corbettmaths.com/wp-content/uploads/2013/02/similar-shapes-pdf.pdf</p> Statistics - Scatter graphs <p>https://corbettmaths.com/wp-content/uploads/2019/01/Scatter-Graphs-1.pdf</p> <p>https://corbettmaths.com/wp-content/uploads/2013/02/scatter-graphs-pdf2.pdf</p>