

**HIGHER GCSE UNIT SUMMARY: UNIT 15: Quadratics, expanding more than two brackets, sketching graphs, graphs of circles, cubes and quadratics**

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Unit Description	Taught	Revision Priority
Sketch a graph of a quadratic function, by factorising or by using the formula, identifying roots and y-intercept, turning point;		
Be able to identify from a graph if a quadratic equation has any real roots;		
Find approximate solutions to quadratic equations using a graph;		
Expand the product of more than two linear expressions;		
Sketch a graph of a quadratic function and a linear function, identifying intersection points;		
Sketch graphs of simple cubic functions, given as three linear expressions;		
Solve simultaneous equations graphically: find approximate solutions to simultaneous equations formed from one linear function and one quadratic function using a graphical approach; find graphically the intersection points of a given straight line with a circle; solve simultaneous equations representing a real-life situation graphically, and interpret the solution in the context of the problem;		
Solve quadratic inequalities in one variable, by factorising and sketching the graph to find critical values;		
Represent the solution set for inequalities using set notation, i.e. curly brackets and 'is an element of' notation; for problems identifying the solutions to two different inequalities, show this as the intersection of the two solution sets, i.e. solution of $x^2 - 3x - 10 < 0$ as $\{x: -3 < x < 5\}$ ;		
Solve linear inequalities in two variables graphically;		
Show the solution set of several inequalities in two variables on a graph;		
Use iteration with simple converging sequences.		