

## CCEA (HIGHER) GCSE MATHS EXAMINATION BOARD COVERAGE

## Education, Anywhere, Anytime

				ווורווכח	ווורווכח	ווורווכח
TIER	TOPIC	HEADING	SUB HEADING	HIGHER	HIGHER	HIGHEK CCEA LINIT T4
Both	Number	Integers	Ordering numbers	V V	LINIT T4	UNU 16
Both	Number	Integers	Rounding numbers	у		
Both	Number	Integers	Adding and subtracting whole numbers			
Both	Number	Integers	Dividing whole numbers			
Both	Number	Integers	BIDMAS			
Both	Number	Integers	Inverse operations			
Both	Number	Negative numbers	Understanding negative numbers			
Both	Number	Decimals	integers and decimals : the four basic operations			
Both	Number	Decimals	Ordering decimals			
Both	Number	Decimals	Using place value in calculating with decimals			
Both	Number	Decimals	Order of operation : BIDMAS			
Both	Number	Decimals	Rounding decimals			
Both	Number	Decimals	Estimating decimals			
Both	Number	Decimals	Recognising their corresponding fractions			
Both	Number	Factors, primes and powers	Multiples, factors and prime numbers			
Both	Number	Factors, primes and powers	Highest common factor (hcf) and lowest common multiple (lcm)			
Both	Number	Factors, primes and powers	Squares, cubes and roots			
Both	Number	Factors, primes and powers	Index form			
Both	Number	Factors, primes and powers	Reciprocals			
Both	Number	Fractions	Equivalent fractions			
Both	Number	Fractions	Adding and subtracting fractions			
Both	Number	Fractions	Multiplying and dividing fractions			
Both	Number	Fractions	Comparing fractions			
Both	Number	Fractions	Improper fractions and mixed numbers			
Both	Number	Fractions	Performing calculations with mixed numbers			
Both	Number	Fractions	Solving problems involving fractions			
Both	Number	Fractions, decimals and percentages	Converting fractions			
Both	Number	Fractions, decimals and percentages	Converting decimals			
Both	Number	Fractions, decimals and percentages	Converting percentages			
Both	Number	Fractions, decimals and percentages	Ordering decimals, fractions and percentages			
Higher	Number	Fractions, decimals and percentages	Recurring decimals			У
Both	Number	Index notation and surds	Index form and the law of indices		У	
Higher	Number	Index notation and surds	Fractional indices		у	
Both	Number	Index notation and surds	Standard form			У
Higher	Number	Index notation and surds	Surds			У
Both	Number	Percentages	Writing one quantity as a percentage of another	у		
Both	Number	Percentages	Calculating the percentage of an amount	У		
Both	Number	Percentages	Increasing or decreasing an amount by a percentage	У		
Both	Number	Percentages	Real-life percentage problems	У		
Both	Number	Percentages	Percentage of a quantity	У		
Both	Number	Percentages	Multiplier use in calculations	У		
Both	Number	Percentages	Profit and loss	У		
Both	Number	Percentages	Compound and simple interest	У		
Both	Number	Percentages	Depreciation	У		
Both	Number	Percentages	Reverse percentages	У		
Higher	Ratio, proportion and rates of change	Ratio and proportion	Simplifying a ratio			
Higher	Ratio, proportion and rates of change	Ratio and proportion	Unitary form			
Higher	Ratio, proportion and rates	Ratio and proportion	Solving ratio problems			
Both	of change Ratio, proportion and rates of change	Ratio and proportion	Direct and inverse proportion		У	
Higher	Ratio, proportion and rates of change	Ratio and proportion	More complex direct and inverse proportion problems		у	
Both	Ratio, proportion and rates	Ratio and proportion	Simplifying a ratio			
Both	of change Ratio, proportion and rates	Ratio and proportion	Unitary form (1 : n)			
	of change					

TIER	TOPIC	HEADING	SUB HEADING	HIGHER CCEA LINIT T3	HIGHER CCEA LINIT T4	HIGHER CCEA LINITTA
Both	Ratio, proportion and rates of change	Ratio and proportion	Ratio problems			
Both	Ratio, proportion and rates of change	Ratio and proportion	Dividing a quantity in a given ratio			
Both	Ratio, proportion and rates	Ratio and proportion	Direct proportion		у	
Higher	of change Algebra	Algebraic expressions	Evaluating expressions	у	•	
Higher	Algebra	Algebraic expressions	Simplifying expressions	у		
Both	Algebra	Algebraic expressions	Multiplying out a pair of brackets	у		
Higher	Algebra	Algebraic expressions	Introduction to factorising	у		
Both	Algebra	Algebraic expressions	Factorising a quadratic	у		
Higher	Algebra	Algebraic expressions	Factorising a more complex quadratic	у		
Higher	Algebra	Algebraic expressions	Simplifying algebraic fractions	у		
Both	Algebra	Algebraic expressions	Writing an expression			
Both	Algebra	Algebraic expressions	Evaluating and simplifying an expression			
Both	Algebra	Algebraic expressions	Multiplying in algebra			
Both	Algebra	Algebraic expressions	Factorising			
Both	Algebra	Algebraic statements	Equation, expression or formula?			У
Both	Algebra	Linear equations	Methods for solving equations			
Both	Algebra	Linear equations	Setting up and solving equations	У		
Both	Algebra	Linear equations	Solving equations with an unknown on both sides	У		
Both	Algebra	Linear equations	Solving equations which contain brackets	У		
Both	Algebra	Linear equations	Solving equations with brackets and negative numbers	У		
Higher	Algebra	Linear equations	Solving equations	У		
Higher	Algebra	Linear equations	Setting up equations	у		
Higher	Algebra	Linear equations	Solving equations with an unknown on both sides	у		
Higher	Algebra	Linear equations	Solving equations containing brackets or fractions	у		
Higher	Algebra	Formulae	Using formulae			У
Higher	Algebra	Formulae	Changing the subject of a formula			У
Both	Algebra	Formulae	Formulae			У
Both	Algebra	Formulae	Writing an algebraic formula			У
Both	Algebra	Formulae	Changing the subject of a formula			У
Both	Algebra	Further graphs	Cubic functions			У
Both	Algebra	Further graphs	Reciprocal functions			У
Higher	Algebra	Further graphs	Exponential functions			У
Higher	Algebra	Further graphs	Equations and their graphs			У
Higher	Algebra	Further graphs	Trigonometric functions			У
Higher	Algebra	Further graphs	Graph of the circle			У
Higher	Algebra	Further graphs	Using graphs to solve a pair of equations			У
Both	Algebra	Index notation	Using index notation			У
Both	Algebra	Inequalities	Solving inequalities and showing inequalities on a number line			У
Both	Algebra	Inequalities	Finding integer solutions to an inequality			У
Both	Algebra	Inequalities	Solving linear inequalities			У
Both	Algebra	Inequalities	Inequalities with integer solutions			У
Higher	Algebra	Inequalities	Solving inequalities with two variables graphically			У
Both	Algebra	Linear graphs	Simple linear graphs			
Both	Algebra	Linear graphs	Using y = mx + c	У		
Higher	Algebra	Linear graphs	Parallel and perpendicular lines		У	
Both	Algebra	Number patterns and sequences	Introduction to number sequences  The oth torm			
Both	Algebra	Number patterns and sequences	The nth term			
Both Higher	Algebra Algebra	Quadratic equations  Quadratic equations	Factorising quadratic equations : example  Solving quadratic equations by completing the square	У		
Higher	Algebra	Quadratic equations  Quadratic equations	The quadratic formula	У	V	
Higher	Algebra	Quadratic equations  Quadratic equations	Equations with algebraic fractions	у	У	
Higher	Algebra	Quadratic equations  Quadratic equations	Problems involving quadratic equations	у		
Both	Algebra	Quadratic equations  Quadratic graphs	Plotting quadratic equations  Plotting quadratic graphs	У		у
Higher	Algebra	Quadratic graphs	Solving quadratic graphs Solving quadratic equations : example	у		у
Both	Algebra	Real-life graphs	Real-life plots and graphs	,		у
Both	Algebra	Simultaneous equations	Solving simultaneous equations using elimination	у	у	,
Both	Algebra	Simultaneous equations	Solving simultaneous equations using elimination	у	У	
Both	Algebra	Simultaneous equations	Solving simultaneous equations using substitution	,	,	
Both	Algebra	Simultaneous equations	Setting up and solving simultaneous equations	у	у	
<u> </u>	I	· ·	1 - · · ·	1		

TIER	TOPIC	HEADING	SUB HEADING	HIGHER CCEA LINIT T3	HIGHER CCEA LINIT T4	HIGHER CCEA LINITTA
Higher	Algebra	Simultaneous equations	Solving a linear and quadratic equation simultaneously	у	у	
Both	Algebra	Substitution	Substitution in an expression			
Higher	Algebra	Transformation of functions	Types of transformations			
Higher	Algebra	Transformation of functions	Translation			
Both	Algebra	Trial and improvement	Trial and improvement			
Higher	Algebra	Trial and improvement	Finding an approximate solution using trial and improvement			
Both	Geometry and Measures	Angles and lines	Types of angles			
Both	Geometry and Measures	Angles and lines	Estimating the size of angles			
Both	Geometry and Measures	Angles and lines	Measuring angles and lengths			
Both	Geometry and Measures	Angles and lines	Parallel and perpendicular lines			
Both	Geometry and Measures	Angles and lines	Constructing an angle			
Both	Geometry and Measures	Angles and lines	Constructing a triangle			
Both	Geometry and Measures	Angles and lines	Angles on a straight line and angles around a point			
Higher	Geometry and Measures	Angles and polygons	Triangles and quadrilaterals			
Higher	Geometry and Measures	Angles and polygons	Interior and exterior angles in a polygon			
Higher	Geometry and Measures	Angles and polygons	Corresponding and alternate angles			
Higher	Geometry and Measures	Angles and polygons	Proving angle facts			
Higher	Geometry and Measures	Angles and polygons	Bearings			
Both	Geometry and Measures	Shapes and angles	Angle facts: triangles			
Both	Geometry and Measures	Shapes and angles	Angle facts: quadrilaterals			
Both	Geometry and Measures	Shapes and angles	Interior and exterior angles			
Both	Geometry and Measures	Shapes and angles	Parallel lines			
Both	Geometry and Measures	Shapes and angles	Bearings			
Both	Geometry and Measures	Circles	The circle			
Both	Geometry and Measures	Circles	Circumference and area			
Both	Geometry and Measures	Circles	Circles and arcs			
Both	Geometry and Measures	Circles	Sectors and segments			
Higher	Geometry and Measures	Circles	Circle theorems		у	
Higher	Geometry and Measures	Circles	Circle theorem: examples		у	
Both	Geometry and Measures	Construction and loci	Constructing a triangle			
Both	Geometry and Measures	Construction and loci	Constructing other shapes			
Both	Geometry and Measures	Construction and loci	Constructing a perpendicular bisector of a line			
Both	Geometry and Measures	Construction and loci	Bisecting an angle			
Both	Geometry and Measures	Construction and loci	Constructing the perpendicular from a point to a line			
Both	Geometry and Measures	Construction and loci	Constructing the perpendicular to a line from a point on the line			
Both	Geometry and Measures	Construction and loci	Constructing the locus of points from a fixed point			
Both	Geometry and Measures	Construction and loci	Constructing the locus of points from a fixed line			
Both	Geometry and Measures	Construction and loci	Constructing a region that satisfies a given set of conditions			
Both	Geometry and Measures	Co-ordinates	Understanding co-ordinates			
Higher	Geometry and Measures	Co-ordinates	3-D co-ordinates			
Both	Geometry and Measures	Measure	Imperial and metric units			
Both	Geometry and Measures	Measure	Convert metric units			
Both	Geometry and Measures	Measure	Speed, distance and time			
Both	Geometry and Measures	Measure	Mass, density and volume			
Higher	Geometry and Measures	Measure	Converting metric units			
Higher	Geometry and Measures	Measure	Converting imperial units			
Higher	Geometry and Measures	Measure	Speed, distance and time conversion			
Higher	Geometry and Measures	Measure	Mass, density and volume conversion			
Higher	Geometry and Measures	Measure	Length, area or volume expressions			у
Higher	Geometry and Measures	Measure	Upper and lower bounds			
Both	Geometry and Measures	Measuring from scales	Measurements and scales			
Both	Geometry and Measures	Measuring from scales	Time and units			
Both	Geometry and Measures	Measuring from scales	Timetables			
Both	Geometry and Measures	Perimeter and area	Calculating perimeter			
Both	Geometry and Measures	Perimeter and area	Calculating area			
Both	Geometry and Measures	Perimeter and area	Compound shapes			
Both	Geometry and Measures	Perimeter and area	Converting units			
Higher	Geometry and Measures	Perimeter and area	Area and perimeter of 2-d shapes	у		
Higher	Geometry and Measures	Perimeter and area	Area and circumference of a circle	у		
Higher	Geometry and Measures	Perimeter and area	Converting between units of measure	У		
	1 ,	1	<u> </u>	,		

TIER	TOPIC	HEADING	SUB HEADING	HIGHER CCEA LINITT3	HIGHER CCEA LINIT T4	HIGHER CCEA LINITTA
Higher	Geometry and Measures	Volume and surface area	Volume of 3-D shapes			
Higher	Geometry and Measures	Volume and surface area	Converting units of volume			
Higher	Geometry and Measures	Volume and surface area	Surface area of a prism and a cylinder			У
Both	Geometry and Measures	Surface area and volume	Surface area of a sphere and a cone			У
Both	Geometry and Measures	3-D shapes	Names and nets of common shapes			
Both	Geometry and Measures	3-D shapes	Front and side elevations			
Both	Geometry and Measures	3-D shapes	Using elevations to draw shapes			
Both	Geometry and Measures	3-D shapes	Planes of symmetry			
Both	Geometry and Measures	Pythagoras' theorem	Finding the hypotenuse using Pythagoras' theorem	У		
Both	Geometry and Measures	Pythagoras' theorem	Finding a shorter side using Pythagoras' theorem	У		
Both	Geometry and Measures	Pythagoras' theorem	Calculating the distance between two points	У		
Both	Geometry and Measures	Pythagoras' theorem	Pythagoras' theorem and real-life problems	У		
Higher		Pythagoras' theorem	3-dimensional shapes		У	
Both	Geometry and Measures	Similarity and congruence	Calculating sides and areas of similar shapes			У
Higher		Similarity and congruence	Calculating volumes of similar 3-d shapes			У
Higher	Geometry and Measures	Similarity and congruence	Volume and area of similar solids: example			У
Higher		Similarity and congruence	Congruence			
Both	Geometry and Measures	Similarity, congruence and symmetry	Similarity and congruence			
Both		Similarity, congruence and symmetry	Line symmetry  Rotational symmetry			
Both	Geometry and Measures	Similarity, congruence and symmetry	Rotational symmetry  Tescallation			
Both Both	Geometry and Measures Geometry and Measures	Similarity, congruence and symmetry  Surface area and volume	Tessellation  Calculating volume of 3-d shapes			
Both		Surface area and volume	Converting units of volume			
Both	Geometry and Measures Geometry and Measures	Surface area and volume	Calculating the surface area of a prism			
Higher	Geometry and Measures	Transformations	Rotation			V
Higher	Geometry and Measures	Transformations	Reflection			у
Higher	Geometry and Measures	Transformations	Translation			у
Higher	Geometry and Measures	Transformations	Enlargement			у
Higher	Geometry and Measures	Transformations	Multiple transformations and describing these as a single transformation			у
Both	Geometry and Measures	Transformations	Rotation			,
Both	Geometry and Measures	Transformations	Reflection			
Both	Geometry and Measures	Transformations	Translation			
Both	Geometry and Measures	Transformations	Enlargement			
Both	Geometry and Measures	Transformations	Multiple transformations			
Both	Geometry and Measures	Trigonometry	The three trigonometric ratios	у		
Both	Geometry and Measures	Trigonometry	Using trigonometry to find a length	у		
Both	Geometry and Measures	Trigonometry	Using trigonometry to find angles	у		
Both	Geometry and Measures	Trigonometry	Using trigonometry to solve problems	у		
Higher	Geometry and Measures	Trigonometry	Using trigonometry in 3-d shapes	у		
Higher	Geometry and Measures	Trigonometry	The area of a triangle		у	
Higher	Geometry and Measures	Trigonometry	The sine rule		у	
Higher	Geometry and Measures	Trigonometry	The cosine rule		у	
Both	Geometry and Measures	Vectors	Vector quantities			
Both	Geometry and Measures	Vectors	The laws of vector addition			
Both	Geometry and Measures	Vectors	Parallel vectors			
Higher	Geometry and Measures	Vectors	Solving geometric problems involving vectors			
Both	Statistics	Averages	Comparing distributions			
Both	Statistics	Averages	Mean, median, mode and range	У		
Both	Statistics	Averages	Stem and leaf diagrams	У		
Both	Statistics	Averages	Ungrouped frequency tables			
Both	Statistics	Averages	Grouped frequency tables			
Higher	Statistics	Averages	Inter-quartile range and stem and leaf diagrams	У	у	
Higher	Statistics	Averages	Moving averages		У	
Both	Statistics	Collecting data	Collecting and recording data			
Both	Statistics	Collecting data	Two-way tables			
Both	Statistics	Collecting data	Questionnaires			
Higher	Statistics	Collecting data	Sampling		У	
Both	Statistics	Presenting data	Bar charts, pie charts, line graphs, frequency diagrams, histograms and frequency polygons		У	
Both	Statistics	Presenting data	Pictograms			
Higher	Statistics	Presenting data	Cumulative frequency graphs	У		

TIER	TOPIC	HEADING	SUB HEADING	HIGHER CCEA LINIT T3	HIGHER CCEA LINIT T4	HIGHER CCEA LINITTG
Higher	Statistics	Presenting data	Box plots, data comparison and histograms with unequal widths	У	у	
Both	Statistics	Presenting data	Scatter graphs and correlations			
Both	Probability	Probability	The probability scale and writing probabilities			
Both	Probability	Probability	Two-way probability tables			
Both	Probability	Probability	Mutually exclusive events			
Both	Probability	Probability	Relative frequency			
Both	Probability	Probability	Probability and sample spaces			У
Higher	Probability	Probability	Mutually exclusive events			У
Both	Probability	Probability	Independent events			У
Both	Probability	Probability	Probability trees			У
Higher	Probability	Probability	Relative frequency			У