Content Mapping: Legacy GCSE Mathematics C (J517) Modules to GCSE Mathematics B (J567)

GCSE Mathematics B

OCR GCSE in Mathematics B: J567

This mapping document is designed to accompany the OCR GCSE Mathematics B specification J567 (for teaching from September 2010), for teachers currently using GCSE Mathematics C (J517) – Graduated Assessment.

This document was updated on 5 July 2010. The change is on page 23 and is highlighted by a thick vertical side bar.

Contents

Introduction

This document is to assist teachers using the Mathematics C (Graduated Assessment) specification in making the transition to the new Mathematics B specification J567, for first teaching from September 2010.

OCR envisages that this document will be most useful to teachers when planning to use the new Mathematics B specification. It will help you to see how the content of the Module Tests fits into the Stages of the new specification, and where the relevant statements can be found.

Content for the ten Module Tests is listed as it appears in the J517 legacy specification, with the best-fit statements for the new Mathematics B specification written in two columns on the right-hand side. One column is for the Foundation tier and the other for Higher.

How to use this document – an example

Module Test M6 statement N6.3 is "Solve problems involving the four operations on decimals without the use of a calculator; convert a simple fraction to a decimal using division."

The "best-fit" Foundation tier reference given for Mathematics B is FSN4, FGN3. The first part of this reference tells you to look in the Mathematics B specification at the Foundation Silver Stage, Number statement 4.

- This reads "Use the four operations on decimals without the use of a calculator."

The second part of the reference is for the Foundation Gold Stage, Number statement 3.

- This reads "Convert a simple fraction to a decimal using division. Use and understand terminating and recurring decimals including exact fraction equivalents."

- Note that this statement goes further than N6.3; and in the specification you will find that FGN3 also includes a reference to N7.1, the statement concerning terminating and recurring decimals.

Reverse mapping

A further document lists the content for Mathematics B, where each statement in the specification has the relevant "best-fit" statements from the J517 Module Tests listed next to it in full.

The specification itself also includes such a mapping, but with just the reference codes for the J517 Module Test statements and not those statements written out in full.

Legacy Module M1 content mapping

B271		J567 references	
	Number	**Foundation**	**Higher**
N1.1	Write and order whole numbers up to 10 000; round numbers to the nearest 10 or 100.	FIN1	
N1.2	Identify odd and even numbers; recognise numbers divisible by five and ten.	Deleted	
N1.3	Add and subtract two-digit numbers; multiply and divide using multiplication facts to 10 × 10, without the use of a calculator.	FIN2	
N1.4	Solve addition, subtraction, multiplication and division problems involving whole numbers or money; interpret the calculator display.	*Subsumed*	
N1.5	Identify ½, ¼, ¾ of a shape; find ½, ¼, ¾ of a given quantity.	*Subsumed*	
N1.6	Work out finishing times and intervals (up to one hour) for times given in multiples of five minutes, without the use of a calculator.	*Subsumed*	
	Algebra		
A1.1	Continue simple sequences; explain how to find the next number in a simple pattern.	FIA1	
A1.2	Understand the use of symbols to represent unknowns; use simple function machines to deal with inputs and outputs, recognising basic inverse functions.	FIA3	
A1.3	Use coordinates in the first quadrant.	*Subsumed*	
	Shape		
S1.1	Use metres, centimetres and millimetres and convert measurements from one to another.	FIG1	
S1.2	Read scales graduated in 2, 5, 10, 20, 25, 100, 0·1; read the time from analogue clocks.	*Subsumed*	
S1.3	Measure and draw lines to the nearest millimetre; find the perimeter of simple straight-sided shapes.	FIG5	

		Foundation	Higher
	Shape (continued)		
S1.4	Find areas of simple shapes (including irregular shapes) by counting squares, and volumes of simple shapes by counting cubes.	FIG5	
S1.5	Recognise regular polygons (pentagon, hexagon, octagon); recognise the terms circle, centre, radius, diameter and circumference and follow instructions to construct inscribed regular polygons.	FIG4	
S1.6	Draw and recognise simple enlargements on grids.	*Subsumed*	
S1.7	Understand and use the compass directions N, S, E, W, NE, NW, SE, SW.	FIG6	
	Data		
D1.1	Understand and use the vocabulary of probability, including terms such as ‘fair’, ‘evens’, ‘certain’, ‘likely’, ‘unlikely’ and ‘impossible’.	FIS1	
D1.2	Find all possible ways of listing up to **four** objects.	FIS2	
D1.3	Draw and interpret simple graphs and pictograms.	FIS4	

Legacy Module M2 content mapping

B272		J567 references	
	Number	**Foundation**	**Higher**
N2.1	Order positive and negative temperatures; solve problems involving temperature changes.	FIN12	
N2.2	Solve addition and subtraction problems using numbers with up to two decimal places in the context of measurement or money, without the use of a calculator.	FIN2	
N2.3	Solve multiplication and division problems involving multiplication of up to a two-digit number by a one-digit number, without the use of a calculator.		
N2.4	Solve division problems, interpreting the result.	*Subsumed*	
N2.5	Convert ½ and ¼ to and from percentage form and calculate 25%, 50% of simple quantities, including money; read and estimate percentages from percentage scales and scaled pie charts.	FIN7	
N2.6	Calculate a fraction of a given quantity. Express one quantity as a fraction or percentage of another. Use the four operations with fractions; order fractions using a common denominator.	FIN5 FIN6	
	Algebra		
A2.1	Recognise and describe patterns in number.	FIA1	
A2.2	Use word formulae in context; substitute positive integers into the formula to find the value of the subject.	FIA2	
	Shape		
S2.1	Estimate lengths and angles by comparison.	*Subsumed*	
S2.2	Use kilograms and grams and convert measurements from one unit to another.	FIG1	
S2.3	Measure and draw angles to the nearest degree; distinguish between acute, obtuse, reflex and right angles.	FIG3	
S2.4	Recognise simple solids and their nets.	FIG4	
S2.5	Recognise and complete reflection symmetry of 2-D shapes.	FIG7	
S2.6	Use and interpret street plans (including simple grid references, left and right, clockwise and anticlockwise, and compass directions).	FIG6	

		Foundation	Higher
	Data		
D2.1	Understand and use the probability scale.	FIS1	
D2.2	Find the mode and median value of a small set of discrete data.	FIS3	
D2.3	Extract and use information from common two-way tables including timetables.	FIS5	

Legacy Module M3 content mapping

B273		J567 references	
	Number	**Foundation**	**Higher**
N3.1	Use the terms square, positive square root; recall the squares of 2 to 12; use index notation for squares; use a calculator to find squares and square roots.	FBN3	
N3.2	Multiply and divide numbers with no more than **one** decimal digit by an integer between 1 and 10 without the use of a calculator.	FIN3	
N3.3	Multiply and divide any number (with up to two decimal places) by powers of ten without the use of a calculator.	FIN3	
N3.4	Calculate a fraction of a given quantity.	FIN5	
N3.5	Calculate simple percentages (10%, 20%, 30%, 5%, 15%) of quantities without the use of a calculator.	FIN7	
N3.6	Work out starting times, finishing times and intervals without the use of a calculator.	FIN10	
N3.7	Perform calculations involving the use of brackets and the hierarchy of operations.	FIN11	
	Algebra		
A3.1	Solve simple equations involving one operation.	FIA3	
A3.2	In context, use formulae expressed in words or symbols; substitute positive numbers into the formula to find the value of the subject.	FIA2	
A3.3	Construct and interpret simple graphs, including conversion graphs.	FIA5	
	Shape		
S3.1	Make sensible estimates of a range of measures in everyday settings.	FIG2	
S3.2	Use litres and millilitres and convert measurements from one unit to another; interpret scales on a range of measuring instruments.	FIG1	
S3.3	Use 2-D representations of 3-D shapes including views and isometric drawings.	FBG3	
S3.4	Construct and interpret scale drawings using simple scale factors.	*Subsumed*	
S3.5	Understand and use positive integer scale factors for enlargements on a grid.	FBG8	

		Foundation	Higher
	Data		
D3.1	Understand and use measures of probability from equally likely outcomes.	FBS1	
D3.2	Calculate the mean and the range of discrete data.	FIS3	
D3.3	Draw and interpret simple frequency tables, charts and bar charts for discrete data.	FIS4	

Legacy Module M4 content mapping

B274		J567 references	
	Number	**Foundation**	**Higher**
N4.1	Solve problems involving all four operations on decimal numbers with up to three decimal places using a calculator, where the operation has to be determined.	*Subsumed*	
N4.2	Use decimal notation and recognise that each terminating decimal is a fraction; order decimals; convert simple fractions of a whole to percentages of the whole and vice versa.	FIN6 FIN8	
N4.3	Use written methods to multiply and divide a three-digit number by a two-digit number; add, subtract and multiply numbers with up to two decimal places.	FIN4	
N4.4	Understand the concepts and vocabulary of factor (divisor), multiple and common factor and prime number.	FBN1	
N4.5	Solve simple ratio and proportion problems particularly in the context of recipes.	FIN9 FBN9	
N4.6	Solve problems using a range of skills including simple trial and improvement.	*Subsumed*	
	Algebra		
A4.1	Derive a simple formula.	FBA2	
A4.2	Continue and explain patterns in number and spatial arrangements; generate terms of a sequence using term-to-term and position-to-term definitions of the sequence.	FBA1	
A4.3	Interpret information presented in a range of linear and non-linear graphs, including travel (distance/time) graphs; calculate speed in simple cases.	FBA5	
	Shape		
S4.1	Know rough metric equivalents of pounds, feet, miles, pints and gallons.	Deleted	
S4.2	Recall and use properties of angles at a point, angles on a straight line, perpendicular lines and opposite angles at a vertex; use angle properties of equilateral, isosceles and right-angled triangles.	FIG3 FBG1	
S4.3	Find the area of a rectangle.	FIG5	
S4.4	Use axes and coordinates to specify or locate points in all four quadrants; find the coordinates of points identified by geometrical information.	FIA4	

		Foundation	Higher
	Shape (continued)		
S4.5	Understand that reflections are specified by a mirror line; transform triangles and other 2-D shapes by reflection, using a line parallel to an axis.	FIG8	
S4.6	Recognise and visualise rotation symmetry of 2-D shapes; identify the order of rotation symmetry.	FBG7	
	Data		
D4.1	Understand and use estimates and measures of probability.	*Subsumed*	
D4.2	Use the range and measures of average for discrete data.	*Subsumed*	
D4.3	Interpret graphs representing real data, including recognising misleading diagrams.	FBS4	

Legacy Module M5 content mapping

B275		J567 references	
	Number	**Foundation**	**Higher**
N5.1	Round numbers to the nearest integer, to a given power of ten, to one significant figure and to one or two decimal places; estimate answers to one-stage calculations including problems involving money and measurement.	FBN2	
N5.2	Use the term cube; recall the cubes of 2, 3, 4, 5, and 10; use index notation for simple integer powers.	FBN3	
N5.3	Understand equivalent fractions, simplifying a fraction (including mixed numbers) by cancelling all common factors; multiply a fraction by an integer or a unit fraction.	FBN4	
N5.4	Use the equivalence between fractions, decimals and percentages in context; solve simple percentage problems including increase and decrease.	FBN6 FSN3	HIN3
N5.5	Express one quantity as a fraction or percentage of another.	FSN2	HIN2
N5.6	Use the four operations with positive and negative integers.	FBN8	
	Algebra		
A5.1	Solve problems involving substitution of positive numbers into simple algebraic formulas.	FBA2	
A5.2	Solve simple linear equations in which the unknown appears on either side of the equation.	*Subsumed*	
A5.3	Manipulate algebraic expressions by collecting like terms.	FBA3	
A5.4	Use tables to plot graphs of linear functions given explicitly.	FSA4	

		Foundation	Higher
	Shape		
S5.1	Construct triangles using a ruler and protractor only given information about their sides and angles; use a straight edge and compasses to construct triangles with given sides including equilateral triangles.	*Subsumed*	
S5.2	Use and interpret maps and scale drawings, including four-figure grid references and estimating distances and areas; use bearings to specify direction.	FBS2	
S5.3	Classify quadrilaterals by their geometric properties.	FBG5	
S5.4	Explore the geometry of cuboids (including cubes) and shapes made from cuboids; find the volumes of cuboids, recalling the formula; draw and interpret the net of a cuboid.	FBG4	
S5.5	Understand that rotations are specified by a centre and an angle; complete the rotation symmetry of 2-D shapes; measure the angle of rotation using right angles and simple fractions of a turn.	FBG7	
	Data		
D5.1	List all outcomes for single events, and for two successive events, in a systematic way; find probabilities. Use the fact that the probability of not happening is 1 – probability of happening.	FBS1	
D5.2	Use and interpret the statistical measures mode, median, mean and range for discrete and continuous data, including comparing distributions.	FBS2	
D5.3	Construct and interpret pie charts.	FBS3	

Legacy Module M6 content mapping

B276		J567 references	
	Number	**Foundation**	**Higher**
N6.1	Use a calculator effectively and efficiently, including using the memory and bracket keys, and function keys for reciprocals, squares and powers; enter a range of measures including 'time'; interpret the display; round off a final answer to a reasonable degree of accuracy.	FSN6	HIN6
N6.2	Use ratio notation, including reduction to its simplest form; solve word problems involving ratio and proportion.	FSN5	HIN5
N6.3	Solve problems involving the four operations on decimals without the use of a calculator; convert a simple fraction to a decimal using division.	FSN4 FGN3	HIN4 HBN3
N6.4	Use the four operations with fractions; order fractions using a common denominator.	FBN5 FSN1	HIN1
N6.5	Perform calculations using the hierarchy of operations.	FSN6	HIN6
	Algebra		
A6.1	Manipulate algebraic expressions by multiplying a single term over a bracket and by taking out single term common factors.	FSA3	HIA3
A6.2	Solve linear equations with integer coefficients in which the unknown appears on both sides of the equation, or with brackets.	FSA2	HIA2
A6.3	Use index notation for simple positive integer powers; substitute positive and negative numbers into expressions such as $4x - 2$, $3x^2 + 4$ and $2x^3$.	FSA1	HIA1
A6.4	Plot graphs of linear functions in which y is given explicitly or implicitly in terms of x.	FGA4	HBA4
A6.5	Draw and interpret graphs modelling real situations.	FGA5	HBA5

		Foundation	Higher
	Shape		
S6.1	Use parallel lines, alternate angles and corresponding angles; calculate and use the sums of the interior and exterior angles of quadrilaterals, pentagons and hexagons; calculate and use the angles of regular polygons; understand simple proofs involving triangles and quadrilaterals.	FSG1 FGG3	HIG1 HBG3
S6.2	Recall the meaning of circle, chord, tangent, arc, sector, segment; find circumferences and areas enclosed by circles, recalling relevant formulae.	FSG3	HIG3
S6.3	Construct triangles and other 2-D shapes using a ruler and a protractor, given information about their sides and angles; construct inscribed regular polygons; construct nets of cubes, regular tetrahedra, square-based pyramids and other 3-D shapes.	FSG2	HIG2
S6.4	Recall and use the formula for the area of a parallelogram and a triangle; use the formula for the area of a trapezium; calculate perimeters and areas of shapes made from triangles and rectangles; find the surface area of simple shapes using the area formulae for triangles and rectangles.	FSG4	HIG4
S6.5	Calculate volumes of shapes made from cubes and cuboids.	FBG4	
S6.6	Analyse 3-D shapes through 2-D projections and cross-sections, including plans and elevations.	FSG5	HIG5
S6.7	Recognise, visualise and construct enlargements of objects using positive integer and fractional scale factors; identify the centre and the scale factor of enlargement; understand the implications of enlargement for perimeter.	FGG7	HBG7
S6.8	Transform triangles and other 2-D shapes by rotation or reflection or translation using vectors; recognise and visualise rotations, reflections and translations including reflection symmetry of 3-D shapes; understand the properties preserved by these transformations; understand congruence in the context of transformations.	FSG8	HIG8

		Foundation	Higher
	Data		
D6.1	Identify different mutually-exclusive outcomes and know that the sum of the probabilities of all these outcomes is one.	FSS1	HIS1
D6.2	Draw and interpret scatter graphs including using lines of best fit; have a basic understanding of correlation, identifying ‘correlation’ or ‘no correlation’.	FGS3	HBS3
D6.3	Use and interpret diagrams for discrete and continuous data, including frequency polygons and stem and leaf diagrams; identify the modal class; calculate the mean of grouped discrete data compare distributions and make inferences, using the shapes of the distributions and measures of average and range.	FSS2 FSS3	HIS2 HIS3

Legacy Module M7 content mapping

B277		J567 references	
	Number	**Foundation**	**Higher**
N7.1	Use and understand terminating and recurring decimals including exact fraction equivalents; solve problems involving multiplication and division by decimals with up to two decimal places.	FGN3	HBN3
N7.2	Use the terms cube root, negative square root; ~~recall the squares to 15^2 and the corresponding square roots; recall the cubes of 2, 3, 4, 5, and 10~~; use index laws with numerical and algebraic expressions involving multiplication and division of positive integer powers.	FGN1	HBN1
N7.3	Check solutions to calculations using various methods including approximating, using inverse operations and recognising the effect of multiplying and dividing by numbers less than one and greater than one; estimate answers using appropriate techniques.	FGN5	HBN5
N7.4	Understand and use ratios in appropriate contexts including dividing a quantity in a given ratio.	FSN5	HIN5
N7.5	Calculate an unknown quantity from quantities that vary in direct proportion.	Deleted	*Subsumed*
N7.6	Use percentages to compare proportion; solve percentage problems involving increase and decrease including using a multiplier.	FGN4	HBN4
N7.7	Use and understand the terms reciprocal, highest common factor, lowest common multiple, prime number; find the prime number decomposition of positive integers.	FGN6	HBN6
	Algebra		
A7.1	Use and generate formulae in context; substitute positive and negative numbers into a formula.	FSA1	HIA1
A7.2	Form and solve equations.	FSA2	HIA2
A7.3	Change the subject of a formula in cases where the subject only appears once.	FGA3	HBA3
A7.4	Expand the product of two linear expressions.	Deleted	*Subsumed*
A7.5	Generate points and plot graphs of quadratic functions; find approximate solutions to a quadratic equation from the graph of the corresponding quadratic function.	FGA6	HBA6
A7.6	Form and solve simple linear inequalities in one variable and represent the solution set on a number line.	FGA2	HBA2
A7.7	Use trial and improvement to find approximate solutions of equations.	FSA5	HIA5

		Foundation	Higher
	Algebra (continued)		
A7.8	Generate common integer sequences; use and justify linear expressions to describe the *n*th term of an arithmetic sequence.	FGA1	HBA1
	Shape		
S7.1	Know that measurements using real numbers depend on the choice of unit; recognise that a measurement given to the nearest whole unit may be inaccurate by up to one half in either direction.	FGG1	HBG1
S7.2	Solve angle problems involving intersecting and parallel lines, and polygons; (understand that the tangent at any point on a circle is perpendicular to the radius at that point – HSG1 only).	*Subsumed*	HSG1
S7.3	Understand, recall and use Pythagoras' theorem.	FGG4	HBG4
S7.4	Solve problems involving area and circumference of circles; use pi in exact calculations.	*Subsumed*	*Subsumed*
S7.5	Solve problems involving the surface area and volume of prisms, including cylinders; convert between area measures and volume measures.	FGG5	HBG5
S7.6	Understand and use 3-D coordinates; find the coordinates of the midpoint of a line segment AB given points AB in 2-D.	Deleted	HSG2 HSG3
S7.7	Apply loci to spatial problems involving shapes and paths; use straight edge and compasses to produce standard constructions including the midpoint and perpendicular bisector of a line segment, the perpendicular from a point to a line, and the bisector of an angle.	FGG6	HBG6
S7.8	Understand and use rates and compound measures, including speed and density.	FGG2	HBG2
	Data		
D7.1	Solve probability problems involving theoretical models or relative frequency.	FGS1	HBS1
D7.2	Calculate the mean from grouped continuous data.	FGS2	HBS2
D7.3	Interpret scatter graphs for discrete and continuous variables, including using lines of best fit; understand the vocabulary of correlation, including positive, negative and zero correlation.	FGS3	HBS3

Legacy Module M8 content mapping

B278		J567 references	
	Number	**Foundation**	**Higher**
N8.1	Solve efficiently problems involving percentage increase and decrease; calculate the original amount when given the transformed amount after a percentage change.		HSN1
N8.2	Solve problems involving repeated proportional or percentage changes, including compound interest; represent repeated proportional change using a multiplier raised to a power.		HSN2
N8.3	Use standard index form expressed in conventional notation and on a calculator display; convert between ordinary and standard index form representations; calculate with standard index form; check solutions by converting to standard index form.		HSN3
N8.4	Perform calculations on fractions including the multiplication and division of mixed numbers.	FGN2	HBN2
	Algebra		
A8.1	Use and generate formulae; change the subject of a formula, including simple cases where the subject appears twice or where a power of the subject appears.		*Subsumed*
A8.2	Multiply expressions of the form $(x + 3)(x – 7)$ and simplify the resulting expression; solve quadratic equations of the form x^2 +/– … by factorisation, including the difference of two squares.		HSA2
A8.3	Solve harder linear equations including those with fractional coefficients.		HSA1
A8.4	Find the exact solution of two simultaneous equations in two unknowns by eliminating a variable, and interpret the equations as lines and their common solution as the point of intersection.		HSA4
A8.5	Plot graphs of simple cubic functions and the reciprocal function $y = 1/x$ with $x \neq 0$; recognise the characteristic shapes of these functions.		HSA5
A8.6	Solve linear inequalities in one variable; solve several linear inequalities in two variables and find the solution set.		HSA6
A8.7	Find the gradient of straight lines given by equations of the form $y = mx + c$: understand that $y = mx + c$ represents a straight line, interpret the values of m and c; know when lines are parallel.		HSA7

		Foundation	Higher
	Shape		
S8.1	Understand the difference between the formulae for perimeter, area and volume by considering dimensions.		Deleted
S8.2	Transform triangles and other 2-D shapes by combinations of reflection, rotation (of any angle about any point) and translation, including the use of vector notation; construct enlargements using any scale factors; identify scale factors.		HSG6 HSG8
S8.3	Understand, recall and use trigonometrical relationships in right-angled triangles and use these to solve problems, including those involving bearings.		HSG4
S8.4	Understand similarity of triangles and other plane figures and use this to make geometrical inferences.		HSG5
	Data		
D8.1	Use tree diagrams to represent outcomes of combined events, recognising when events are independent; find probabilities.		HSS1
D8.2	Draw and interpret cumulative frequency tables and diagrams and box plots for grouped data; find the median, quartiles, percentiles and interquartile range.		HSS2
D8.3	Compare distributions and make inferences, using the shapes of the distributions and measures of average and spread, including median and quartiles.		HSS3
D8.4	Calculate an appropriate moving average.		HSS4

Legacy Module M9 content mapping

B279		J567 references	
	Number	**Foundation**	**Higher**
N9.1	Use calculators or written methods to calculate the upper and lower bounds of calculations, particularly in the context of measurement.		HGN4
N9.2	Check the order of magnitude of a compound calculation using estimation methods, including rounding numbers of any size to one significant figure and simplifying calculations using standard index form, without the use of a calculator.		HSN4
N9.3	Use fractional, negative and zero powers in simplifying numerical expressions, including using inverse operations.		HGN1
	Algebra		
A9.1	Rearrange harder formulae, including cases where the subject appears twice, or where a power of the subject appears.		HSA3
A9.2	Form and use equations to solve word and other problems involving direct or inverse proportion (for example, $y \propto x$, $y \propto x^2$, $y \propto 1/x$, $y \propto 1/x^2$) ~~including relating algebraic solutions to graphical representations of the equations.~~		HGA1
A9.3	Manipulate algebraic expressions by expanding the product of two linear expressions, by taking out common factors and by cancelling common factors in rational expressions; factorise quadratic expressions, including the difference of two squares; solve quadratic equations of the form $ax^2 + bx + c = 0$ by factorisation.		HSA2
A9.4	~~Find gradients of straight lines perpendicular to each other and~~ write equations of straight lines in the form $y = mx + c$.		*Subsumed*
	Shape		
S9.1	Use ~~and prove~~ angle and tangent properties of circles, including the alternate segment theorem.		HSG1
S9.2	Use Pythagoras' theorem and trigonometrical relationships in 3-D contexts, including using 3-D coordinates and finding the angles between a line and a plane; use Pythagoras' theorem to find the length AB given the points A and B in 2-D.		HSG3 HGG2
S9.3	Solve problems involving the lengths of arcs, areas of sectors and the volume of pyramids, cones and spheres.		HGG4

		Foundation	Higher
	Shape (continued)		
S9.4	Understand and use the effect of enlargement on length, area and volume of shapes and solids, including the use of negative scale factors.		HSG7
	Data		
D9.1	Solve ~~structured~~ problems involving the addition or multiplication of two probabilities.		HGS1
D9.2	Draw and interpret histograms for grouped data; understand frequency density.		HGS2
D9.3	Select a representative sample from a population using random and stratified sampling; criticize sampling methods.		HGS4

Legacy Module M10 content mapping

B280		J567 references	
	Number	**Foundation**	**Higher**
N10.1	Use calculators to explore exponential growth and decay.		HGN5
N10.2	Convert a recurring decimal to a fraction and vice versa; ~~use prime factors to identify fractions which represent terminating decimals;~~ simplify expressions involving powers or surds including rationalising a denominator.		HGN2 HGN3
	Algebra		
A10.1	Manipulate algebraic expressions including fractions; solve related equations.		HGA4
A10.2	Solve quadratic equations by completing the square and using the quadratic formula.		HGA2
A10.3	Solve exactly, by elimination of an unknown, two simultaneous equations in two unknowns, one of which is linear, the other equation quadratic in one unknown~~ or of the form $x^2 + y^2 = r^2$~~.		HGA3
A10.4	Apply to the graph of $y = f(x)$ the transformations $y = f(x) + a$, $y = f(ax)$, $y = f(x + a)$, $y = af(x)$, for linear, quadratic~~, sine and cosine~~ functions $f(x)$.		HGA6
A10.5	Construct graphs of exponential functions,~~ and of the circle $x^2 + y^2 = r^2$~~; solve problems involving the intersection of straight lines with a curve ~~(including a circle)~~.		HGA5
	Shape		
S10.1	Solve problems involving surface areas and volumes of pyramids, cylinders, cones and spheres, and problems involving more complex shapes including segments of circles and frustums of cones.		HGG4
S10.2	Understand and use SSS, SAS, ASA and RHS condition to prove the congruence of triangles; verify standard ruler and compass constructions; use congruence to show that translations, reflections and rotations preserve length and angle.		HGG1
S10.3	Calculate the area of a triangle using ½absinC; use the sine and cosine rules to solve 2-D and 3-D problems.		HGG3
S10.4	Draw, sketch and describe the graphs of trigonometric functions for angles of any size~~, including transformations involving scalings in either or both the x and y directions.~~		HGA5: tan deleted

		Foundation	Higher
	Shape (continued)		
S10.5	Understand and use vector notation; calculate, and represent graphically the sum of two vectors, the difference of two vectors and a scalar multiple of a vector; calculate the resultant of two vectors; understand and use the commutative and associative properties of vector addition; solve simple geometrical problems in 2-D using vector methods.		HGG5
	Data		
D10.1	Compare data sets (including grouped discrete and continuous data); draw conclusions.		HGS3
D10.2	Identify seasonality and trends in time series, from tables or diagrams; interpret graphs modelling real situations.		HSS4
D10.3	Solve problems involving the addition or multiplication of two probabilities.		HGS1