

Meridian Maths Curriculum

Year 9

Note:

This is a working document as the new curriculum rolls through. Topics 1-10 are included; this document will be updated again at Easter.

Timings are suggestions and class teachers will adapt to suit the needs of their class. This may include different topics being taught where classes have two teachers.

		1	2	3	4	5	6	7	8								1	2	3	4	5	6	7			
Year 9 (New)	Aut	1. Indices		2. Circles			3. Proportion		4. Charts and Graphs 1									4. Continued	5. Constructions and Loci		6. Volume		Revision		7. Transformations	
	Spr	8. Expanding double brackets			9. Further solving equations		10. Scatter graphs		11. Angle properties									11. Continued		12. Backward Percentages	13. Similarity		14. Congruence			
	Sum	Revision	Mid Term 2	15. Rearranging formulae		16. Pythagoras' Theorem		17. Linear Graphs 2										18. Averages and sampling			Revision	Mid Term 3	19. Advanced Probability			

Click the topic in the overview above to take you directly to the page for that topic.

Clicking the mid term will take you directly to the page showing the content covered in that assessment.

Topics from Y7, 8 and 9 will be assessed in each mid term. Sparx Independent Learning codes from previously studied topics can also be found linked in this document.



Key Idea 1.1: Laws of Indices

1.1.a: Multiplication Law.

1.1.b: Division Law.

1.1.c: Power Law.

Key Idea 1.2: Standard Index Form

1.2.a: Writing numbers in Standard Form.

1.2.b: Calculating with Standard Form

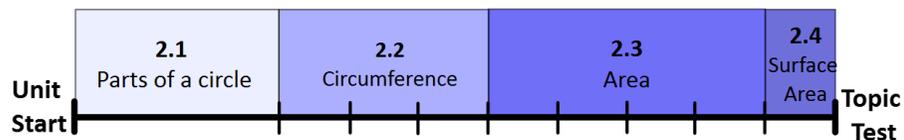
Key Idea 1.3: Products of Prime Factors

1.3.a: HCF and LCM using products of prime factors.

Sparx Maths

Independent Learning Codes

Skill	Code
Index rules with positive indices	U235
Index rules with negative indices	U694
Using standard form with positive indices	U330
Using standard form with negative indices	U534
Multiplying and dividing numbers in standard form	U264
Adding and subtracting numbers in standard form	U290
Standard form with a calculator	U161



Key Idea 2.1: Parts of a circle

2.1.: Parts of a circle and definitions

Key Idea 2.2: Circumference

2.2.a: Relationship between diameter and circumference

2.2.b: Calculating the circumference

2.2.c: Working backwards and perimeter

Key Idea 2.3: Area

2.3.a: Deriving the area

2.3.b: Calculating the area

2.3.c: Area of part circles (semis and quarters)

2.3.d: Area of composite shapes and shaded areas including circles

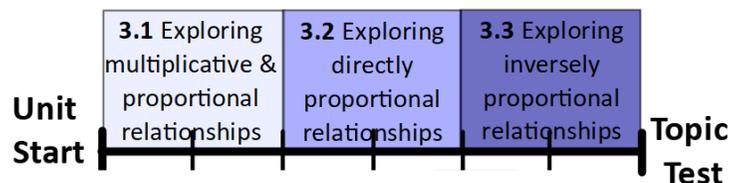
Key Idea 2.4: Surface area

2.4: Surface area of a cylinder

Sparx Maths

Independent Learning Codes

Skill	Code
Identifying parts of circles	U767
Finding the circumference of circles	U604
Finding the area of circles	U950
Finding the surface area of cylinders	U464



Sparx Maths

Independent Learning Codes

Skill	Code
Solving direct proportion word problems	U721
Solving inverse proportion word problems	U357
Currency conversion	U610

Key Idea 3.1: Exploring Multiplicative and Proportional Relationships

3.1a: Exploring multiplicative relationships.

3.1b: Exploring proportional relationships.

Key Idea 3.2: Direct Proportion

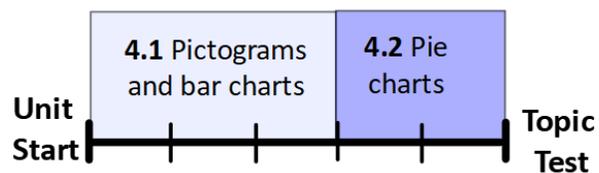
3.2a: Exploring directly proportional relationships.

3.2b: Applications of directly proportional relationships

Key Idea 3.3: Inverse Proportion

3.3a: Exploring inversely proportional relationships.

3.3b: Determining between direct and inverse relationships.



Key Idea 4.1: Pictograms and Bar Charts

4.1a: Pictograms.

4.1b: Drawing Bar Charts.

4.1c: Interpreting Bar Charts.

Key Idea 4.2: Pie Charts

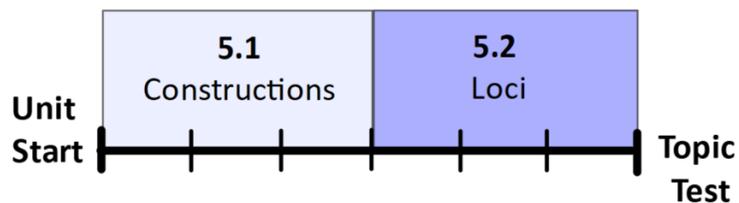
4.2a: Drawing Pie Charts.

4.2b: Interpreting Pie Charts.

Sparx Maths

Independent Learning Codes

Skill	Code
Drawing and interpreting tally charts	U653
Drawing and interpreting pictograms	U506
Drawing bar charts	U363
Interpreting bar charts	U557
Drawing pie charts	U508
Interpreting pie charts	U172



Key Idea 5.1: Constructions

5.1a: Basic constructions including bisectors.

5.1b: Constructing shapes.

5.1c: Constructing angles.

Key Idea 5.2: Loci

5.2a: Simple loci.

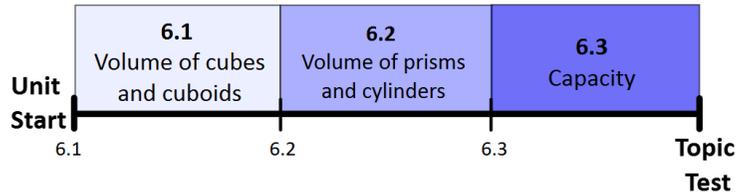
5.2b: Loci using constructions.

5.2c: Regions.

Sparx Maths

Independent Learning Codes

Skill	Code
Using a pair of compasses	U678
Constructing triangles	U187
Constructing bisectors of angles	U787
Constructing perpendicular bisectors and lines	U245
Mixed problems: Constructing bisectors and perpendicular lines	U979
Constructing loci	U820



Key Idea 6.1: Volume of cubes and cuboids

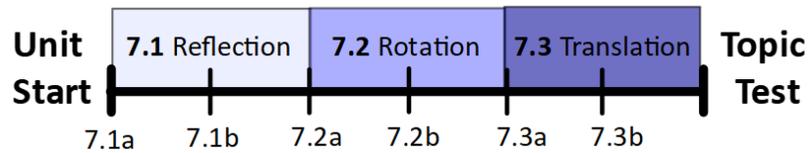
Key Idea 6.2: Volume of prisms, composite and cylinders

Key Idea 6.3: Capacity

Sparx Maths

Independent Learning Codes

Skill	Code
Finding the volume of cubes and cuboids	U786
Finding the volume of prisms	U174
Finding the volume of cylinders	U915



Key Idea 7.1: Reflection

7.1a: Reflection

7.1b: Describing Reflections

Key Idea 7.2: Rotation

7.2a: Rotation

7.2b: Describing Rotations

Key Idea 7.3: Translation

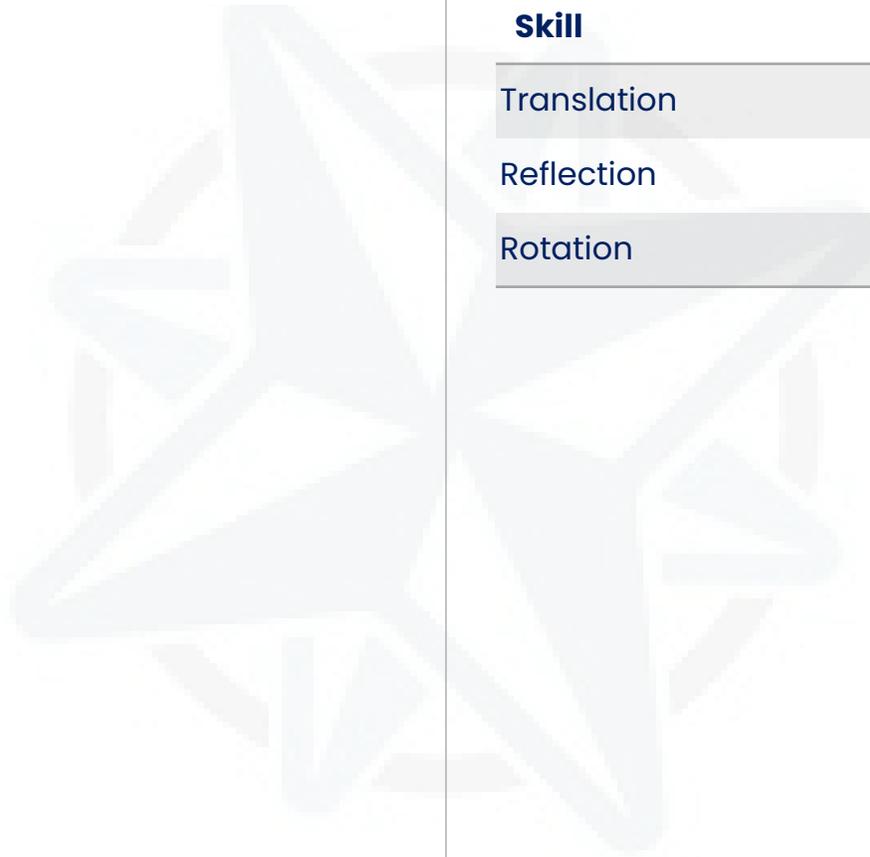
7.3a: Translation

7.3b: Describing Translations

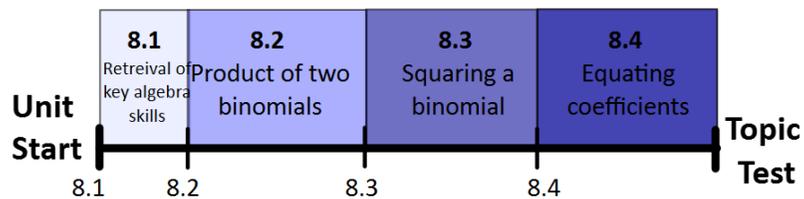
Sparx Maths

Independent Learning Codes

Skill	Code
Translation	U196
Reflection	U799
Rotation	U696



Topic 8: Expanding Double Brackets



Key Idea 8.1: Retrieval of key algebra skills

Key Idea 8.2: Product of two binomials

Key Idea 8.3: Squaring a binomial

Key Idea 8.4: Equating coefficients

Sparx Maths

Independent Learning Codes

Skill

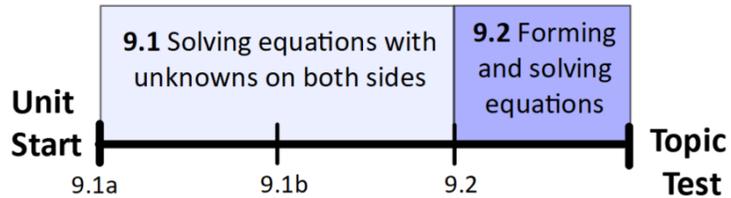
Code

Expanding single brackets

U179

Expanding double brackets

U768



Key Idea 9.1: Solving equations with unknowns on both sides

9.1a: Retrieval: Solving linear equations with unknowns on both sides

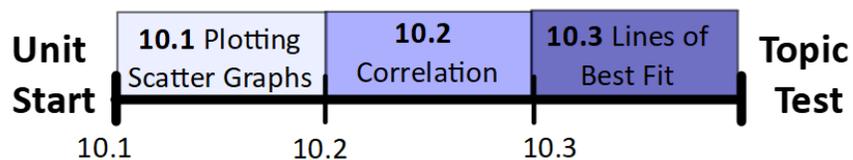
9.1b: Solving equations with unknowns on both sides

Key Idea 9.2: Forming and solving equations

Sparx Maths

Independent Learning Codes

Skill	Code
Solving equations with one step	U755
Solving equations with two or more steps	U325
Solving equations with the unknown on both sides	U870



Key Idea 10.1: Plotting Scatter Graphs

Key Idea 10.2: Correlation

Key Idea 10.3: Lines of Best Fit

Sparx Maths

Independent Learning Codes

Skill	Code
Plotting scatter graphs	U199
Interpreting scatter graphs	U277





This topic is under construction.

Details for this topic will be available in time.

Sparx Maths

Independent Learning Codes

Skill

Code

Skill	Code



This topic is under construction.

Details for this topic will be available in time.

Sparx Maths

Independent Learning Codes

Skill	Code



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Sparx Maths

Independent Learning Codes

Skill	Code



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Sparx Maths

Independent Learning Codes

Skill	Code



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Sparx Maths

Independent Learning Codes

Skill	Code



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Sparx Maths

Independent Learning Codes

Skill	Code



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Sparx Maths

Independent Learning Codes

Skill	Code



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Details for this topic will be available in time.

Sparx Maths

Independent Learning Codes

Skill	Code



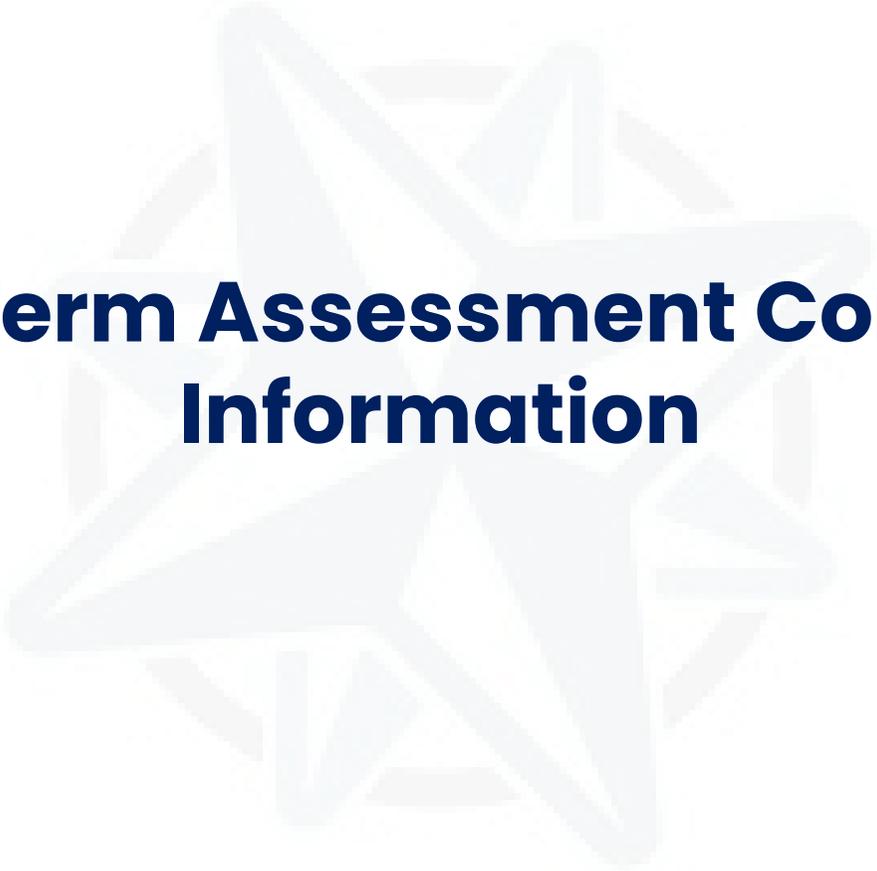
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Details for this topic will be available in time.

Sparx Maths

Independent Learning Codes

Skill	Code



Mid Term Assessment Content Information

Year 9 Mid Term 1 – Topics Included

Recently Studied	Topic Number	Previously Studied	Topic Number
Angle rules	Year 8 Topic 9	Evaluating indices	Year 7 Topic 1
Volume of a cuboid	Year 8 Topic 9	Properties of 2D Shapes including notation	Year 7 Topic 4
3D drawing	Year 8 Topic 10	Multiply and dividing decimals	Year 7 Topic 6
Volume of a prism	Year 8 Topic 10	Collecting like terms	Year 7 Topic 7
Index Laws	Year 9 Topic 1	Expanding brackets	Year 7 Topic 7
Standard Form – small numbers	Year 9 Topic 1	Linear sequences	Year 7 Topic 8
Standard form calculations	Year 9 Topic 1	Solving linear equations	Year 8 Topic 1
Simplifying using Index laws	Year 9 Topic 1	Solving equations with brackets	Year 8 Topic 1
HCF LCM	Year 9 Topic 1	Adding and subtracting fractions	Year 8 Topic 3
Parts of a circle	Year 9 Topic 2	Mixed numbers and improper fractions	Year 8 Topic 3
Area of a circle	Year 9 Topic 2	Percentages of amounts	Year 8 Topic 5
Circumference of a circle	Year 9 Topic 2	Probability from a table	Year 8 Topic 4
Proportion calculations	Year 9 Topic 3	Simplifying ratio	Year 8 Topic 7
Direct proportion	Year 9 Topic 3	Plot a linear graph with a table of values	Year 8 Topic 8
Best Buys	Year 9 Topic 3	Interpret gradient and intercept	Year 8 Topic 8
Interpret Pictograms	Year 9 Topic 4		
Draw and Interpret bar charts	Year 9 Topic 4		
Interpret Pie Charts	Year 9 Topic 4		
Constructions	Year 9 Topic 5		
Constructing triangles	Year 9 Topic 5		
Loci	Year 9 Topic 5		



This information is not yet available.



This information is not yet available.

Sparx Independent Learning Codes for Topics Studied in Year 7 and 8

		1	2	3	4	5	6	7	8	1	2	3	4	5	6	7		
Year 7	Aut	SPARX BL		1. Number Properties			2. Place Value 1			Mid Term 1		2. Continued		3. Place Value 2		Equipment Use		
	Spr	4. Conventions and Properties of Shapes			5. Addition and Subtraction					Mid Term 2		6. Multiplication and division						
	Sum	7. Generalising Number				8. Linear Sequences				8. Continued		Mid Term 3	9. Ordering & Equivalence					

		1	2	3	4	5	6	7	8	1	2	3	4	5	6	7
Year 8	Aut	1. Solving Equations			Mid Term 1	2. Coordinates		3. Fraction		Fraction Arithmetic continued		4. Probability				
	Spr	5. Forward percentages			Mid Term 2	6. Perimeter & Area				Perimeter & Area continued		7. Ratio				
	Sum	Ratio continued	8. Linear Graphs 1				Revision	Mid Term 3			9. Angles			10. 3D Shapes		

Sparx Maths

Independent Learning Codes

Skill	Code
Calculating with roots and powers	M135
Special sequences	M981
Index rules with positive indices	M608
Finding factors and using divisibility tests	M823
Finding the highest common factor (HCF)	M698
Prime factor decomposition	M108
Finding prime numbers	M322

Sparx Maths

Independent Learning Codes

Skill	Code
Using number lines	M763
Integer place value	M704
Decimal place value	M522
Partitioning decimals	Q127
Converting units of length	M772
Converting units of mass	M530
Using standard form with positive indices	M719
Understanding and ordering whole numbers	Q976
Ordering decimals	Q509

Sparx Maths

Independent Learning Codes

Skill	Code
Rounding integers	M111
Rounding integers using significant figures	M994
Rounding decimals using significant figures	M131
Estimating calculations	M878

Sparx Maths

Independent Learning Codes

Skill	Code
Using a ruler	M985
Using a pair of compasses	M196
Estimating angles	M541
Measuring angles	M780
Drawing angles	M331



Sparx Maths

Independent Learning Codes

Skill	Code
Line properties	M814
Shape properties	M276
Symmetry	M523
Line properties	M814
Properties of triangles	Q763
Properties of quadrilaterals	Q787

Sparx Maths

Independent Learning Codes

Skill	Code
Adding integers	M928
Adding decimals	M429
Subtracting integers	M347
Subtracting decimals	M152
Finding the perimeter of rectangles and simple shape	M635
Adding and subtracting with time	Q547

Sparx Maths

Independent Learning Codes

Skill	Code
Multiplying using place value	M911
Using a written method to multiply integers	M187
Using a written method to multiply decimals	M803
Dividing numbers into equal groups	M462
Using a written method to divide integers	M354
Dividing with a remainder	M873
Using a written method to divide by integers (decimal answers)	M262
Using a written method to divide by decimals	M491
Using the correct order of operations	M521
Multiplying and dividing with negative numbers	M288
Finding the lowest common multiple (LCM)	M227

Sparx Maths

Independent Learning Codes

Skill	Code
Algebraic notation	M813
Algebraic terminology	M830
Function machines with numbers	M175
Function machines with letters	M428
Simplifying expressions containing a single variable	M795
Simplifying expressions containing multiple variables	M531
Simplifying expressions containing non-linear terms	M949
Expanding single brackets	M237
Factorising into one bracket	M100
Expanding single brackets and simplifying expressions	M792

Sparx Maths

Independent Learning Codes

Skill	Code
Term-to-term rules for numerical sequences	M381
Term-to-term rules for sequences of patterns	M241
Substituting into position-to-term rules	M166
Position-to-term rules for arithmetic sequences	M991
Position-to-term rules for sequences of patterns	M866
Special sequences	M981
Substituting into expressions with one operation	M417
Substituting into expressions with multiple operations	M327

Sparx Maths

Independent Learning Codes

Skill	Code
Converting from mixed numbers to improper fractions	Q347
Converting from improper fractions to mixed numbers	Q621
Converting between fractions and decimals	Q200
Converting between fractions and decimals using equivalent fractions	Q128
Converting between fractions and percentages	Q490
Converting between decimals and percentages	Q709
Mixed problems: Converting between fractions, decimals and percentages	Q503
Finding equivalent fractions	Q310
Simplifying fractions	Q954
Rounding decimals	M431

Sparx Maths

Independent Learning Codes

Skill	Code
Solving equations with one step	M707
Solving equations with two steps	M634
Solving equations of the form $\frac{a}{x} + b = c$	M647
Mixed problems	M855
Solving linear equations involving brackets	M902

Sparx Maths

Independent Learning Codes

Skill	Code
Reading and plotting coordinates	M618
Solving shape problems involving coordinates	M230
Plotting horizontal, vertical and diagonal lines	M797

Sparx Maths

Independent Learning Codes

Skill	Code
Finding fractions of amounts without a calculator	M695
Finding fractions of amounts with a calculator	M684
Adding and subtracting fractions	M835
Converting between mixed numbers and improper fractions	M601
Adding and subtracting mixed numbers	M931
Multiplying fractions	M157
Multiplying with mixed numbers	M197
Reciprocals	M216
Dividing fractions	M110
Dividing with mixed numbers	M265
Mixed problems: Calculating with fractions	M645
Mixed problems: Calculating with mixed numbers	M619

Sparx Maths

Independent Learning Codes

Skill	Code
Using probability phrases	M655
Writing probabilities as fractions	M941
Writing probabilities as fractions, decimals and percentages	M938
Probabilities of mutually exclusive events	M755
Tree diagrams for independent events	M299
Sample space diagrams	M718
Interpreting frequency tables and two-way tables	M899
Calculating experimental probabilities	M332

Sparx Maths

Independent Learning Codes

Skill	Code
Writing numbers as percentages of other numbers	M235
Finding percentages of amounts without a calculator	M437
Finding percentages of amounts with a calculator	M905
Percentage change without a calculator	M476
Percentage change with a calculator	M533

Sparx Maths

Independent Learning Codes

Skill	Code
Finding areas using grids	M900
Finding perimeters using grids	M920
Finding the area of rectangles	M390
Finding the perimeter of rectangles and simple shapes	M635
Finding the area of compound shapes	M269
Finding the perimeter of compound shapes	M690
Finding the area of triangles	M610
Finding the area of compound shapes containing triangles	M996
Finding the area of parallelograms	M291
Finding the area of trapeziums	M705
Mixed problems: Finding the area of rectangles, triangles, parallelograms and trapeziums	M303

Sparx Maths

Independent Learning Codes

Skill	Code
Writing and simplifying ratios	M885
Using equivalent ratios to find unknown amounts	M801
Converting between ratios, fractions and percentages	M267
Sharing amounts in a given ratio	M525
Writing ratios in the form $1:n$	M543

Sparx Maths

Independent Learning Codes

There are no appropriate Sparx Independent Learning codes for the content we cover within this topic at this stage in the curriculum.

Sparx Maths

Independent Learning Codes



This topic is being updated.

Details for this topic will be available in time.

Sparx Maths

Independent Learning Codes

Skill	Code
Nets of 3D shapes	M518
Plans and elevations	M229
Finding the surface area from a net	M884
Finding the surface area of cubes and cuboids	M534
Finding the surface area of prisms	M661