

Meridian Maths Curriculum

Year 8

		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										9. Angles				10. 3D Shapes			
						Mid Term 3																		

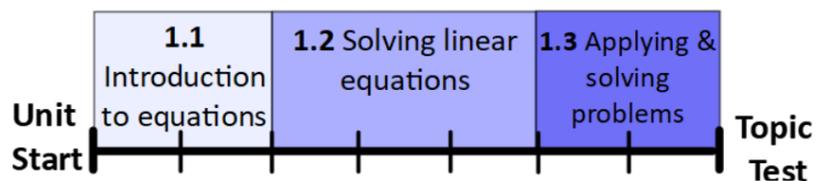
Click the topic in the overview above to take you directly to the page for that topic.

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

Topics from Y7 and Y8 will be assessed in each mid term. Sparx Independent Learning codes from previously studied topics can also be found linked in this document.

Note:

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.



Key Idea 1.1: Introduction to Linear Equations

1.1a: What is an equation?

1.1b: Manipulating equations

Key Idea 1.2: Solving Linear Equations

1.2a: Solving using Algebra Tiles

1.2b: Solving abstractly

1.2c: Solving equations with brackets, fractions and non-integer solutions

Key Idea 1.3: Applications and Problem Solving

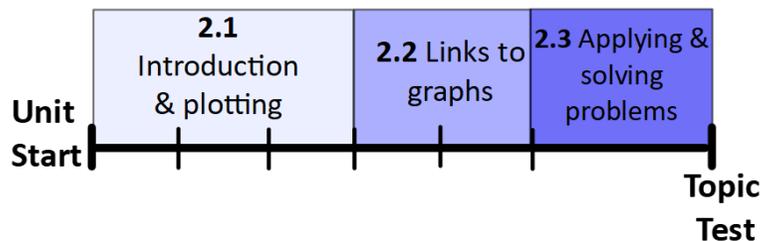
1.3a: Forming and solving 1: Number problems

1.3b: Forming and solving 2: Determining whether a number is in a sequence

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



Key Idea 2.1: Introduction and Plotting Coordinates

2.1a: Reading and plotting coordinates.

2.1b: Plotting shapes.

2.1c: Plotting on unusual axes.

Key Idea 1.2: Links to Graphs

2.2a: Horizontal and vertical graphs.

2.2b: Tilted graphs.

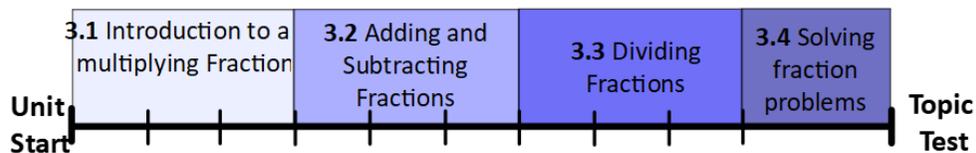
Key Idea 1.3: Applications and Problem Solving

2.3a: Review and problem-solving questions.

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



Key Idea 3.1: Introduction and Multiplying Fractions.

3.1a: Introduction to fractions.

3.1b: Fractions of amounts.

3.1c: Multiplying fractions.

Key Idea 3.2: Adding and Subtracting Fractions.

3.2a: Adding and subtracting fractions with common denominators.

3.2b: Adding and subtracting proper and improper fractions.

3.2c: Adding and subtracting mixed number fractions.

Key Idea 3.3: Dividing Fractions.

3.3a: Dividing fractions and integers.

3.3b: Dividing fractions.

3.3c: Solving fraction division problems.

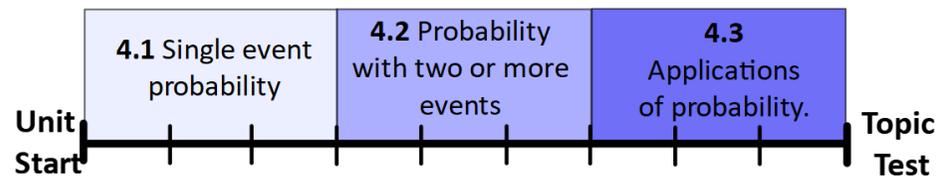
Key Idea 3.4: Solving Fraction Problems

3.4a: Four rules with fractions.

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



Key Idea 4.1: Single Event Probability.

4.1a: The probability scale.

4.1b: Key probability notation.

4.1c: Mutually exclusive and exhaustive events.

Key Idea 4.2: Probability with Two or More Events.

4.2a: Systematic listing.

4.2b: Sample space diagrams.

4.2c: Frequency trees and two-way tables.

Key Idea 4.3: Applications of Probability.

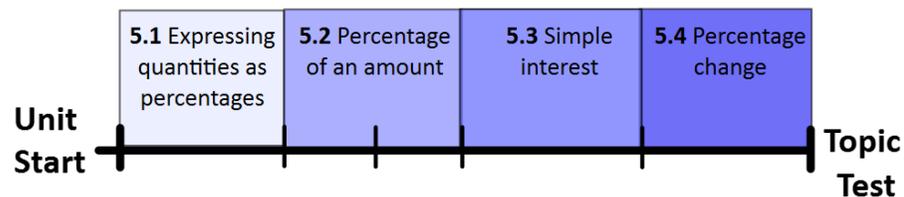
4.3a: Experimental probability and expected outcomes.

4.3b: Reasoning and Problem Solving.

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



Key Idea 5.1: Expressing amounts as percentages

Key Idea 5.2: Percentages of amounts

5.2a: Percentage of an amount (non calculator)

5.2b: Percentage of an amount (calculator)

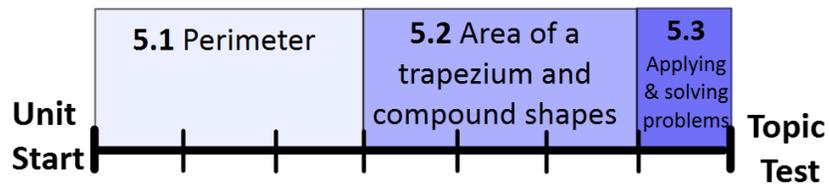
Key Idea 5.3: Simple interest and basic finance

Key Idea 5.4 Percentage change

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



Key Idea 6.1: Perimeter

- 6.1a:** Perimeter of rectilinear shapes
- 6.1b:** Perimeter with algebraic expressions
- 6.1c:** Solving equations with perimeter

Key Idea 6.2: Area

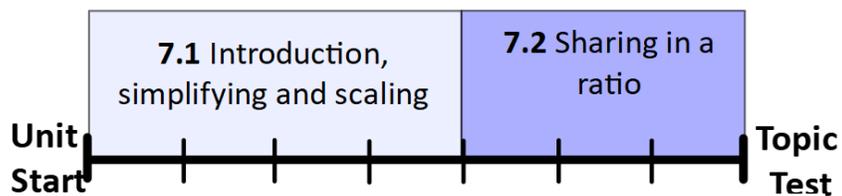
- 6.2a:** Area of rectangles and parallelograms
- 6.2b:** Area of triangles
- 6.2c:** Area of trapezia
- 6.2d:** Area of composite shapes

Key Idea 6.3: Applying and problem solving

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



Key Idea 7.1: Introduction, Simplifying and Scaling

7.1a: Introduction to ratio.

7.1b: Equivalent and simplifying ratio.

7.1c: Unitary ratio and scaling.

7.1d: Writing ratio as fractions.

Key Idea 4.2: Sharing in a Ratio

7.2a: Sharing in a ratio using the whole.

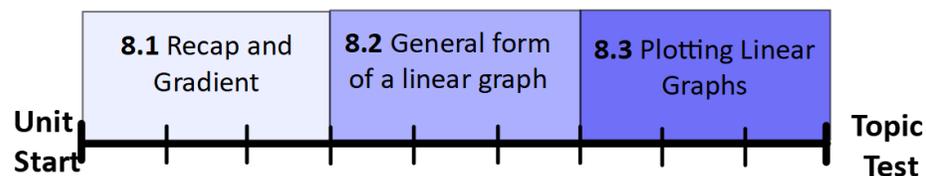
7.2b: Sharing in a ratio using parts and differences.

7.2c: Sharing a ratio using all types.

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

Key Idea 8.1: Recap and Gradient

8.1a: Gradient as slope.

8.1b: Interpreting gradient.

8.1c: Drawing lines with a given gradient.

Key Idea 8.2: The General form of a Linear Graph

8.2a: Exploring intercept.

8.2b: Introducing $y = mx + c$.

8.2c: Exploring gradient and intercept.

Key Idea 8.3: Plotting Linear Graphs

8.3a: Exploring tables of values.

8.3b: Drawing linear graphs from a table of values.

8.1c: Plotting sequences.

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



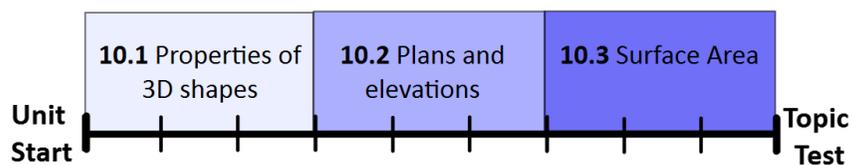
This topic is being updated.

Details for this topic will be available in time.

Sparx Maths

Independent Learning Codes

Skill	Code



Key Idea 10.1: Properties of 3D shapes

10.1a: Key terminology

10.1b: Nets of prisms

10.1c: Drawing 3D shapes on isometric paper

Key Idea 10.2: Plans and elevations

10.2a: Identifying plans and elevations from 3D shapes

10.2b: Drawing plans and elevations from 3D shapes

10.2c: Identifying the 3D shape from the plans and elevations

Key Idea 10.3: Surface area

10.3a: Surface area of prisms

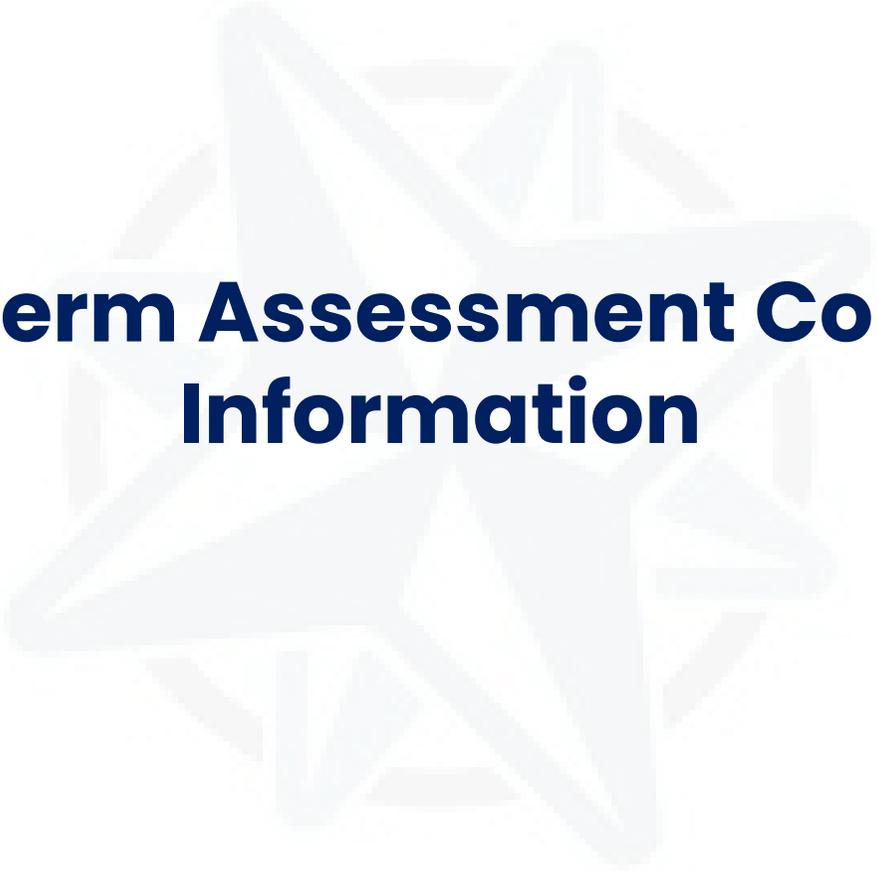
10.3b: Calculating a missing side length when given the surface area

10.3c: Applications of surface area

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



Mid Term Assessment Content Information

Year 8 Mid Term 1 – Topics Included

Recently Studied	Topic Number	Previously Studied	Topic Number
Manipulating equations	Y8 Topic 1	Indices	Y7 Topic 1
Solving equations – simple	Y8 Topic 1	Highest Common Factor	Y7 Topic 1
Solving equations with brackets	Y8 Topic 1	Primes and Prime Factors	Y7 Topic 1
Solving equations with fractions	Y8 Topic 1	Place Value including decimals	Y7 Topic 2
Solving equations with non integer solutions	Y8 Topic 1	Standard Form	Y7 Topic 2
Forming equations	Y8 Topic 1	Rounding to significant figures	Y7 Topic 3
Equivalent Fractions	Y7 Topic 9	Estimating	Y7 Topic 3
Fraction, Decimal and Percentage Conversion	Y7 Topic 9	Add and Subtract Negative Numbers	Y7 Topic 5
Recurring Decimals	Y7 Topic 9	Money	KS2
Manipulating equations	Y8 Topic 1	Multiplying and Dividing Integers/Decimals/Negatives	Y7 Topic 6
Solving equations – simple	Y8 Topic 1	Order of Operations	Y7 Topic 6
		Algebra Notation and Convention	Y7 Topic 7
		Collecting Like Terms	Y7 Topic 7
		Expand and Factorise	Y7 Topic 7
		Labelling 2D Shapes	Y7 Topic 4
		Properties of 2D Shapes	Y7 Topic 4
		Growth Patterns and Investigating Sequences	Y7 Topic 8
		Linear sequences	Y7 Topic 8
		Nth term of a sequence	Y7 Topic 8
		Determine if a number is in a sequence	Y7 Topic 8
		Co-ordinates	KS2/ Y8 Topic 2

[Click here to return to the overview of Year 7](#)

[Click here to return to the overview of Year 8](#)

Year 8 Mid Term 2 – Topics Included

Recently Studied	Topic Number	Previously Studied	Topic Number
Adding and subtracting fractions	Y8 Topic 3	Rounding to significant figures	Y7 Topic 3
Multiplying fractions	Y8 Topic 3	Properties of 2D Shapes	Y7 Topic 4
Dividing fractions	Y8 Topic 3	Adding and subtracting decimals	Y7 Topic 5
Fractions of amounts	Y8 Topic 3	Perimeter	KS2
The probability scale	Y8 Topic 4	Multiply and dividing decimals	Y7 Topic 6
Mutually exclusive events	Y8 Topic 4	Calculating with negative numbers	Y7 Topic 5
Exhaustive events	Y8 Topic 4	Multiplication and division with integers	Y7 Topic 6
Listing outcomes	Y8 Topic 4	Order of operations	Y7 Topic 6
Two-way tables	Y8 Topic 4	Collecting like terms	Y7 Topic 7
Relative frequency	Y8 Topic 4	Understanding the meaning of expressions	Y7 Topic 7
Expected outcomes	Y8 Topic 4	Expanding brackets	Y7 Topic 7
Writing a quantity as a percentage of another	Y8 Topic 5	Factorising expressions	Y7 Topic 7
Percentages of amounts	Y8 Topic 5	Linear sequences	Y7 Topic 8
Percentages: using multipliers	Y8 Topic 5	Solving equations with non-integer solutions	Y8 Topic 1
Percentage change	Y8 Topic 5	Solving simple equations	Y8 Topic 1
		Coordinates	Y8 Topic 2
		Equivalent fractions	Y7 Topic 9
		Converting between fractions, decimals and percentages	Y7 Topic 9
		Ordering fractions	Y7 Topic 9

[Click here to return to the overview of Year 7](#)

[Click here to return to the overview of Year 8](#)

Year 8 Mid Term 3 – Topics Included

Recently Studied		Previously Studied	
	Topic Number		Topic Number
Area of Rectangles	Y8 Topic 6	Multiply and dividing decimals	Y7 Topic 6
Area of Parallelograms	Y8 Topic 6	Calculating with negative numbers	Y7 Topic 5/Y7 Topic 6
Area of a Triangle	Y8 Topic 6	Order of operations	Y7 Topic 6
Area of composite shapes	Y8 Topic 6	Collecting like terms	Y7 Topic 7
Applications of area and perimeter	Y8 Topic 6	Expanding brackets	Y7 Topic 7
Mixed area and perimeter with algebra	Y8 Topic 6	Factorising expressions	Y7 Topic 7
Ratio in its simplest form	Y8 Topic 7	Linear sequences	Y7 Topic 8
Ratio and Fractions	Y8 Topic 7	Solving simple equations	Y8 Topic 1
Divide a quantity in a ratio	Y8 Topic 7	Coordinates	Y8 Topic 2
Scale Drawings	Y8 Topic 7	Equivalent fractions	Y7 Topic 9
Applications of ratio	Y8 Topic 7	Converting between fractions, decimals and percentages	Y7 Topic 9
Plot a linear graph with a table of values	Y8 Topic 8	Ordering fractions, decimals and percentages	Y7 Topic 9
Interpret gradient and intercept	Y8 Topic 8	Adding and subtracting fractions	Y8 Topic 3
Recognise linear graphs	Y8 Topic 8	Multiplying fractions	Y8 Topic 3
$y=mx+c$	Y8 Topic 8	Dividing fractions	Y8 Topic 3
		Listing outcomes	Y8 Topic 4
		Two-way tables	Y8 Topic 4
		Expected outcomes	Y8 Topic 4
		Percentages of amounts	Y8 Topic 5
		Percentage change	Y8 Topic 5
		Mixed numbers and improper fractions	Y7 Topic 9
Previously Studied	Topic Number		
Rounding to significant figures	Y7 Topic 3		
Evaluating indices	Y7 Topic 1		
Properties of 2D Shapes including notation	Y7 Topic 4		
Perimeter	Y8 Topic 6		

[Click here to return to the overview of Year 7](#)

[Click here to return to the overview of Year 8](#)

Sparx Independent Learning Codes for Topics Studied in Year 7

1 2 3 4 5 6 7 8 1 2 3 4 5 6 7

Year 7	Aut	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

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