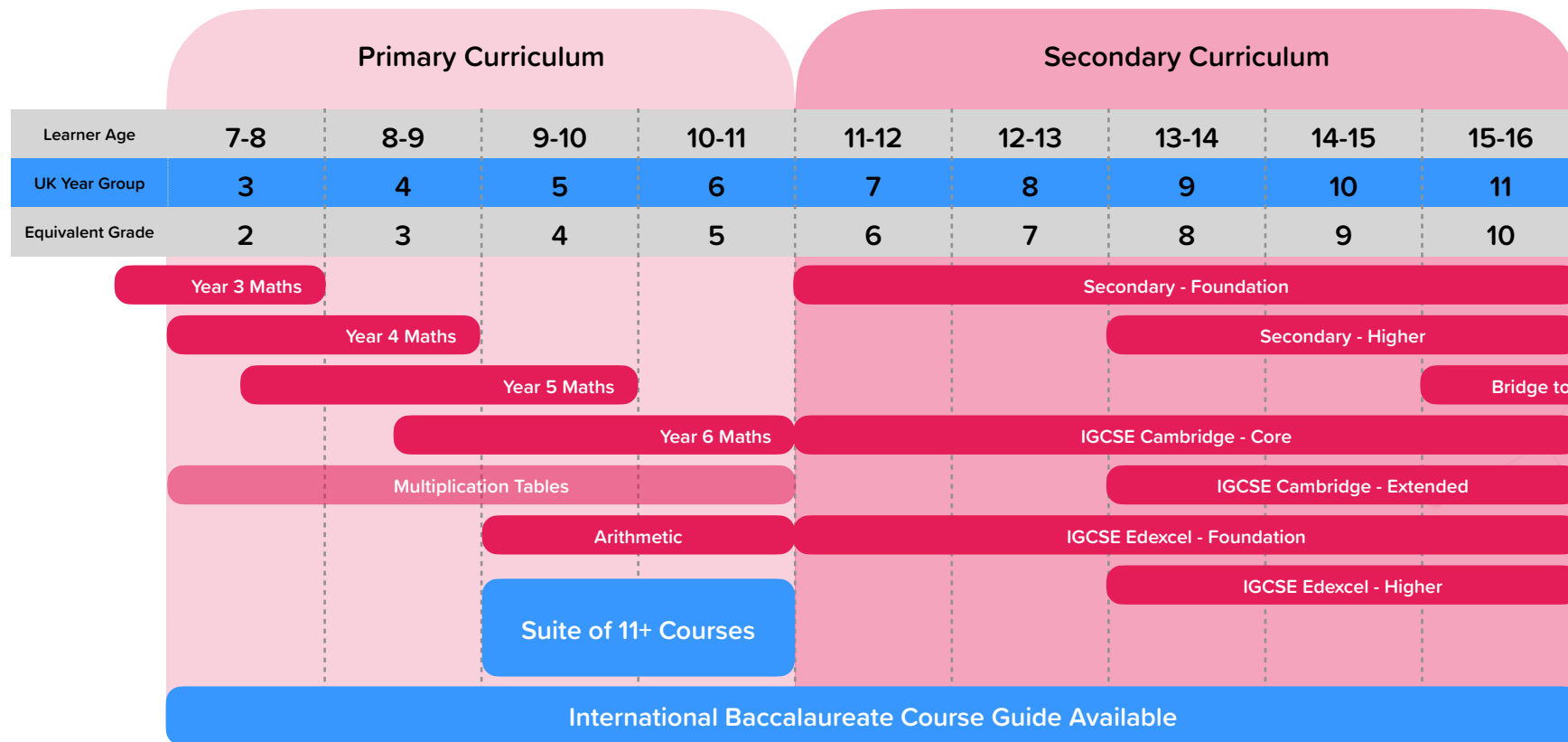




# Course Mappings: Mathematics



## Course Mappings: Primary Mathematics



**Primary Mathematics - Year 3**  
English National Curriculum Map



**Primary Mathematics - Year 3**  
White Rose Maths Map



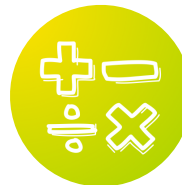
**Primary Mathematics - Year 4**  
English National Curriculum Map



**Primary Mathematics - Year 4**  
White Rose Maths Map



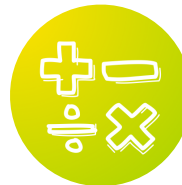
**Primary Mathematics - Year 5**  
English National Curriculum Map



**Primary Mathematics - Year 5**  
White Rose Maths Map



**Primary Mathematics - Year 6**  
English National Curriculum Map



**Primary Mathematics - Year 6**  
White Rose Maths Map

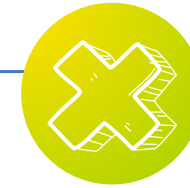
## Primary Mathematics - Arithmetic



This course is designed for students to practise fluency and recall in number skills. Designed to help students prepare for the SATs arithmetic paper with practice papers.

70 Nuggets

## Primary Mathematics - Multiplication Tables



Designed to develop fluency and recall of multiplication tables. Includes each of the times tables, mixed tables tests and practice tests of increasing difficulty.

55 Nuggets

34 55% of 2,400 =

Show your method

$50\% = 2400 \div 2 = 1200$

$5\% = 50\% \div 10 = 1200 \div 10 = 120$

55% = 50% + 5%

**REMEMBER**

### Counting in multiples of 6

Count on 6 by adding 6 each time.  
Each time you add 6 you will arrive at the next multiple.

0 6 12

The following pie chart displays how 30 children travel to school.

Car

Walk

Bus

$\frac{1}{2}$  of the children walk.  $\frac{1}{6}$  of the children take the bus. The rest travel by car.  
How many children travel by car?

\_\_\_ children

I DON'T KNOW

SUBMIT ANSWER

## Course Mappings: Secondary Mathematics



### IGCSE Cambridge - Core

675 Nuggets – Cambridge: 0580



### IGCSE Cambridge - Extended

1005 Nuggets – Cambridge: 0980



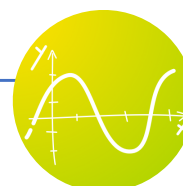
### IGCSE Edexcel - Foundation

660 Nuggets – Edexcel: 4MA1



### IGCSE Edexcel - Higher

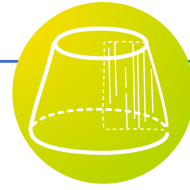
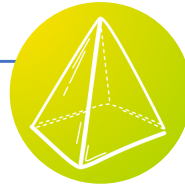
940 Nuggets – Edexcel: 4MA1



### Bridge to A-Level

Suitable for students working at grade 7–9 who are in need of additional challenge, or students in their first term of A Level maths. Covers the essential GCSE skills required before students begin A-Level as well as some content beyond the GCSE syllabus (e.g. differentiation).

445 Nuggets



## Secondary - Foundation

## Secondary - Higher

Suitable for KS3 & KS4 students sitting GCSE Mathematics. The Foundation course is a subset of the Higher course, allowing data transfer between the courses.

Suitable for all exam boards

Foundation: 680 Nuggets – Higher: 970 Nuggets

Edexcel: 1MA1 – QAN: 601/4700/3

AQA: 8300 – QAN: 601/4608/4

OCR: J560 – QAN: 601/4606/0

Eduqas: C300P – QAN: 601/5503/6

**Diagnostics**

**Number**

**Algebra**

**Geometry**

**Probability**

**Statistics**

## Primary Mathematics – Year 3

This document shows how CENTURY nuggets align to the English National Curriculum for Mathematics.

Topic / Strand	National Curriculum Statement Pupils should be able to:	Nugget Name
Number and Place Value	count from 0 in multiples of 4, 8, 50 and 100	Counting in Multiples of 4 [PM1.01]
		Counting in Multiples of 8 [PM1.02]
		Counting in Multiples of 50 [PM1.03]
		Counting in Multiples of 100 [PM1.04]
	recognise the place value of each digit in a 3-digit number (100s, 10s, 1s)	3-Digit: Recognising Place Value [PM1.05]
	identify, represent and estimate numbers using different representations	3-Digit: Representing Numbers up to 1000 [PM1.06]
	find 10 more or 10 less than a given number	3-Digit: Finding 10 More or 10 Less [PM1.07]
	find 100 more or 100 less than a given number	Finding 100 More or 100 Less [PM1.08]
	compare and order numbers up to 1,000	Comparing Numbers with Greater Than and Less Than Symbols $<$ $>$ [PM1.09]
Ordering Numbers up to 1000 [PM1.10]		
Reading and Writing Numbers up to 1000 [PM1.11]		
Addition and Subtraction	add and subtract numbers mentally, including: a three-digit number and 1s a three-digit number and 10s a three-digit number and 100s	3-Digit: Adding and Subtracting 1s [PM2.01]
		3-Digit: Adding and Subtracting 10s [PM2.02]
		3-Digit: Adding and Subtracting 100s [PM2.03]
	add and subtract numbers with up to 3 digits, using formal written methods of columnar addition and subtraction	3-Digit: Column Addition (no Exchanging) [PM2.04]
		3-Digit: Column Addition (with Exchanging) [PM2.05]

		3-Digit: Column Subtraction (no Exchanging) [PM2.06]
		3-Digit: Column Subtraction (with Exchanging) [PM2.07]
		3-Digit: Addition and Subtraction Practice 1 [PM2.08]
		3-Digit: Addition and Subtraction Word Problems 1 [PM2.09]
	estimate the answer to a calculation and use inverse operations to check answers	3-Digit: Rounding to the Nearest 10 and 100 [PM2.10]
		Estimating Using Rounding [PM2.11]
		Checking Answers Using the Inverse 1 [PM2.12]
Multiplication and Division	recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables	Multiplying by 3 [PM3.01]
		Multiplying by 4 [PM3.02]
		Multiplying by 8 [PM3.03]
		Mixed Multiplication [PM3.04]
		Dividing by 3 [PM3.05]
		Dividing by 4 [PM3.06]
		Dividing by 8 [PM3.07]
		Mixed Division [PM3.08]
	write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods	Multiplying Multiples of 10 [PM3.09]
		Multiplying Using Partitioning [PM3.10]
		Multiplying Using the Grid Method [PM3.11]
		Short Multiplication [PM3.12]
		2- Digit: Dividing Using Partitioning (No Remainders) [PM3.60]
		2- Digit: Dividing Using Partitioning (With Remainders) [PM3.61]
		Short Division 1 (No Remainders) [PM3.13]
		Short Division 2 (with Remainders) [PM3.14]
Multiplication and Division Practice 1 [PM3.15]		
Multiplication and Division Word Problems 1 [PM3.16]		

Fractions	recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators	Identifying Fractions [PM4.01]
	count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10	Tenths [PM4.02]
	compare and order unit fractions, and fractions with the same denominators	Comparing and Ordering Fractions [PM4.03]
	add and subtract fractions with the same denominator within one whole [for example, + = ]	Adding and Subtracting Fractions [PM4.04]
	recognise and show, using diagrams, equivalent fractions with small denominators	Equivalent Fractions 1 [PM4.05]
	recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators	Finding Unit Fractions of Amounts [PM4.06]
Finding Non-Unit Fractions of Amounts [PM4.07]		
Finding Fractions of Amounts [PM4.08]		
Measurement	measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml)	Units of Measure [PM5.01]
		Length [PM5.02]
		Solving Length Problems [PM5.03]
		Mass and Weight [PM5.04]
		Solving Mass Problems [PM5.05]
		Volume and Capacity [PM5.06]
		Solving Volume and Capacity Problems [PM5.07]
	measure the perimeter of simple 2-D shapes	Perimeter by Counting [PM5.08]
		Calculating the Perimeter [PM5.09]
	pupils continue to become fluent in recognising the value of coins, by adding and subtracting amounts, including mixed units, and giving change using manageable amounts. They record £ and p separately.	Adding Amounts of Money [PM6.01]
		Adding Amounts of Money 2 [PM6.02]
	add and subtract amounts of money to give change, using both £ and p in practical contexts	Finding Change 1 (from £1) [PM6.14]
		Finding Change 2 [PM6.03]
	add and subtract amounts of money to give change, using both £ and p in practical contexts	Subtracting Amounts of Money [PM6.04]



	pupils continue to become fluent in recognising the value of coins, by adding and subtracting amounts, including mixed units, and giving change using manageable amounts. They record £ and p separately.	Solving Money Problems 1 [PM6.05]
	know the number of seconds in a minute and the number of days in each month, year and leap year	Units of Time [PM7.01]
	estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes and hours; use vocabulary such as o'clock, am/pm, morning, afternoon, noon and midnight	Times of Day [PM7.02]
		Telling the Time in Words [PM7.03]
		Telling the Time to the Nearest 5 Minutes [PM7.04]
		Telling the Time to the Nearest 5 Minutes in Words [PM7.05]
		Telling the Time to the Nearest Minute [PM7.06]
		Roman Numerals (up to 20) [PM7.07]
		Telling the Time with Roman Numerals [PM7.08]
		12 Hour and 24 Hour Clocks [PM7.09]
	estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes and hours; use vocabulary such as o'clock, am/pm, morning, afternoon, noon and midnight	Estimating Time [PM7.10]
	compare durations of events [for example, to calculate the time taken by particular events or tasks]	Finding the Duration [PM7.11]
		Start and End Times [PM7.12]
Geometry - Properties of Shapes	draw 2-D shapes and make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them	Describing 2D Shapes [PM8.01]
		Describing 3D Shapes [PM8.02]
		Nets of Shapes [PM8.03]
	recognise angles as a property of shape or a description of a turn	Angles in Turns 1 [PM8.04]
	identify right angles, recognise that 2 right angles make a half-turn, 3 make three-quarters of a turn and 4 a complete turn; identify whether angles are greater than or less than a right angle	Identifying Angles [PM8.05]
	identify horizontal and vertical lines and pairs of perpendicular and parallel lines	Identifying Lines [PM8.06]
		Lines of Symmetry [PM8.07]

Statistics	interpret and present data using bar charts, pictograms and tables	Pictograms [PM9.01]
		Tables 1 [PM9.02]
		Bar Charts 1 [PM9.03]

This mapping of CENTURY nuggets to the White Rose Lesson-by-lesson Overview can be used to complement your use of the White Rose Scheme of Learning.

### YEAR 3

Week	Topic	White Rose Lesson by Lesson Overview	CENTURY Nugget Name
<b>AUTUMN</b>			
Week 1	Number and Place Value	Represent numbers to 100 Tens and ones using addition Hundreds Numbers to 1,000 Numbers to 1,000 on a place value grid activity	2-Digit: Recognising place value [PM1.34] 2-Digit: Representing numbers [PM1.35] 3-Digit: Recognising place value [PM1.05] 3-Digit: Representing numbers [PM1.06] Counting in multiples of 100 [PM1.04]
Week 2		100s, 10s and 1s (1) 100s, 10s and 1s (2) Number line to 100 Number line to 1,000 Find 1, 10, 100 more or less	Number lines to 100 [PM1.36] Number lines to 1000 [PM1.37] 2-Digit: Finding 10 more or 10 less [PM1.38] 3-Digit: Finding 10 more or 10 less [PM1.07] Finding 100 more or 100 less [PM1.08]
Week 3		Compare objects Compare numbers Ordering numbers Count in 50s	Comparing numbers with greater than and less than symbols $<>$ [PM1.09] Ordering numbers up to 1000 [PM1.10] Counting in multiples of 50 [PM1.03]
Week 4	Addition and Subtraction	Add and subtract multiples of 100 Add and subtract 1s Add and subtract 3-digit and 1-digit numbers - not crossing 10 Add a 2-digit and 1-digit number - crossing 10 Add 3-digit and 1-digit numbers - crossing 10	3-Digit: Adding and subtracting 100s [PM2.03] 2-Digit: Adding and subtracting 1s (not crossing 10) [PM2.33] 2-Digit: Adding 1-digit numbers (crossing 10) [PM2.35] 3-Digit: Adding and subtracting 1s [PM2.01]
Week 5		Subtract a 1-digit number from 2-digits - crossing 10 Subtract a 1-digit number from a 3-digit number - crossing 10 Add and subtract 3-digit and 2-digit numbers - not crossing 100 Add 3-digit and 2-digit numbers - crossing 100 Subtract a 2-digit number from a 3-digit number - crossing 100	2-Digit: Adding and subtracting 1s (not crossing 10) [PM2.33] 2-Digit: Adding 1-digit numbers (crossing 10) [PM2.35] 3-Digit: Adding and subtracting 10s [PM2.02] 3-Digit: Column addition (no exchanging) [PM2.04] 3-Digit: Column subtraction (no exchanging) [PM2.06]

Week 6	Addition and Subtraction	<p>Add and subtract 100s</p> <p>Spot the pattern - making it explicit</p> <p>Add two 2-digit numbers - crossing 10 -add ones &amp; add tens</p> <p>Subtract a 2-digit number from a 2-digit number - crossing 10 - subtract ones and subtract tens</p> <p>Mixed addition and subtraction problems</p>	<p>Adding and subtracting 100s [PM2.03]</p> <p>2-Digit: Adding 2-digit numbers (no exchanging) [PM2.37]</p> <p>2-Digit: Subtracting 2-digit numbers (no exchanging) [PM2.38]</p> <p>2-Digit: Adding 2-digit numbers (with exchanging) [PM2.39]</p> <p>2-Digit: Subtracting 2-digit numbers (with exchanging) [PM2.40]</p>
Week 7		<p>Add and subtract 2-digit &amp; 3-digit numbers - not crossing 10 or 100</p> <p>Add 2-digit and 3-digit numbers - crossing 10 or 100</p> <p>Subtract a 2-digit number from a 3-digit number - crossing 10 or 100</p> <p>Add two 3-digit numbers - not crossing 10 or 100</p> <p>Add two 3-digit numbers - crossing 10 or 100</p>	<p>3-Digit: Column addition (with exchanging) [PM2.05]</p> <p>3-Digit: Column subtraction (no exchanging) [PM2.06]</p> <p>Addition and subtraction practice 1 [PM2.08]</p> <p>Addition and subtraction word problems 1 [PM2.09]</p>
Week 8		<p>Subtract a 3-digit number from a 3-digit number - no exchange</p> <p>Subtract a 3-digit number from a 3-digit number - exchange</p> <p>Estimate answers to calculations</p> <p>Check answers</p>	<p>Rounding to the nearest 10 and 100 [PM2.10]</p> <p>Estimating using rounding [PM2.11]</p> <p>Checking answers using the inverse 1 [PM2.12]</p>
Week 9	Multiplication and Division	<p>Multiplication - equal groups</p> <p>Multiplication using the symbol</p> <p>Using arrays</p> <p>2 times-table</p> <p>5 times-table</p>	<p>Understanding multiplication [PM3.63]</p> <p>Counting in multiples of 2 [PM10.01]</p> <p>Multiplying by 2 [PM10.05]</p> <p>Counting in multiples of 5 [PM10.03]</p> <p>Multiplying by 5 [PM10.06]</p>
Week 10		<p>Make equal groups - sharing</p> <p>Make equal groups - grouping</p> <p>Divide by 2</p> <p>Divide by 5</p> <p>Divide by 10</p>	<p>Dividing by 2 [PM10.08]</p> <p>Dividing by 5 [PM10.09]</p> <p>Dividing by 10 [PM10.10]</p>
Week 11		<p>Multiply by 3</p> <p>Divide by 3</p> <p>The 3 times-table</p> <p>Multiply by 4</p> <p>Divide by 4</p>	<p>Counting in multiples of 3 [PM10.02]</p> <p>Multiplying by 3 [PM3.01]</p> <p>Dividing by 3 [PM3.05]</p> <p>Counting in multiples of 4 [PM1.01]</p> <p>Multiplying by 4 [PM3.02]</p> <p>Dividing by 4 [PM3.06]</p>
Week 12		<p>The 4 times-table</p> <p>Multiply by 8</p> <p>Divide by 8</p> <p>The 8 times-table</p>	<p>Counting in multiples of 8 [PM1.02]</p> <p>Multiplying by 8 [PM3.03]</p> <p>Dividing by 8 [PM3.07]</p>

SPRING			
Week 1	Multiplication and Division	Consolidate 2, 4 and 8 times tables Comparing statements Related calculations Multiply 2-digits by 1-digit - no exchange - activity Multiply 2-digits by 1-digit (1)	Comparing statements [PM3.64] Mixed multiplication [PM3.04] Multiplying using partitioning [PM3.10]
Week 2		Multiply 2-digits by 1-digit - exchange - activity Multiply 2-digits by 1-digit (2) Divide 2-digits by 1-digit (1) Divide 2-digits by 1-digit (2) Divide 100 into 2, 4, 5 and 10 equal parts - activity	Short multiplication 1 [PM3.12] Dividing using partitioning (no remainders) [PM3.60]
Week 3		Divide with remainders activity Divide 2-digits by 1-digit (3) Scaling How many ways?	2-Digit: Dividing using partitioning (with remainders) [PM3.61] 2-Digit: Dividing using partitioning (with remainders) [PM3.61] Scaling problems 1 [PM3.65]
Week 4	Money	Count money (pence) Count money (pounds) Pounds and pence Convert pounds and pence Add money	Counting money (pence) [PM6.11] Counting money (pounds) [PM6.12] Making amounts (pounds and pence) [PM6.15] Converting pounds and pence [PM6.13] Adding amounts of money [PM6.01] Adding amounts of money 2 [PM6.02]
Week 5		Subtract money Give change Make tally charts Draw pictograms (1-1)	Subtracting amounts of money [PM6.04] Finding change 1 (from £1) [PM6.14] Finding change 2 [PM6.03] Tally charts [PM9.16] Block diagrams [PM9.14] Pictograms [PM9.01]
Week 6	Statistics	Interpret pictograms (1-1) Draw bar charts - activity Bar charts Tables	Bar charts 1 [PM9.03] Tables 1 [PM9.02]
Week 7	Measurement	Measure length Measure length (m) Equivalent lengths (m and cm) Equivalent lengths (mm and cm) Compare lengths	Length [PM5.02]

Week 8	Measurement	Compare lengths Add lengths Subtract lengths What is perimeter? Activity Measure perimeter	Solving length problems [PM5.03] Perimeter by counting [PM5.08]
Week 9		Calculate perimeter Calculate perimeter Working with wholes and parts activity Recap - Make equal parts	Calculating the perimeter [PM5.09]
Week 10	Fractions	Recognise a half Find a half Recognise a quarter Find a quarter Recognise a third	Recognising and finding a half [PM4.37] Recognising and finding quarters [PM4.38] Recognising and finding thirds [PM4.39]
Week 11		Find a third Unit fractions Non-unit fractions Equivalence of a half and 2 quarters Count in fractions	Identifying fractions [PM4.01] Counting in fractions [PM4.40]
<b>SUMMER</b>			
Week 1	Fractions	Making the whole Tenths Count in tenths Fractions on a number line Fractions of a set of objects (1)	Tenths [PM4.02] Finding unit fractions of amounts [PM4.06]
Week 2		Fractions of a set of objects (2) Fractions of a set of objects (3) Equivalent fractions (1) Equivalent fractions (2) Equivalent fractions (3)	Finding non-unit fractions of amounts [PM4.07] Finding fractions of amounts [PM4.08] Equivalent fractions 1 [PM4.05]
Week 3		Compare fractions Order fractions Add fractions Subtraction fractions	Comparing and ordering fractions [PM4.03] Adding and subtracting fractions [PM4.04]

Week 4	Time	O'clock and half past Quarter past and quarter to Months and years Hours in a day Telling the time to 5 minutes	Telling the time in words [PM7.03] Units of time [PM7.01] Telling the time to the nearest 5 minutes [PM7.04] Telling the time to the nearest 5 minutes in words [PM7.05]
Week 5		Telling the time to the minute Using a.m. and p.m. 24-hour clock activity 24-hour clock Finding the duration	Telling the time to the nearest minute [PM7.06] Times of day [PM7.02] 12 hour and 24 hour clocks [PM7.09] Finding the duration [PM7.11]
Week 6		Comparing durations Start and end times Measuring time in seconds Problem solving with time	Start and end times [PM7.12]
Week 7	Geometry	Turns and angles Right angles in shapes Compare angles Draw accurately Horizontal and vertical	Angles in turns 1 [PM8.04] Identifying angles [PM8.05]
Week 8		Parallel and perpendicular Recognise and describe 2-D shapes Recognise and describe 3-D shapes Make 3-D shapes	Identifying lines [PM8.06] Describing 2D shapes [PM8.01] Describing 3D shapes [PM8.02] Nets of shapes [PM8.03]
Week 9	Measurement	Measure mass activity Compare mass Measure mass (1) Measure mass (2) Compare mass	Mass and weight [PM5.04]
Week 10		Add and subtract mass Measure capacity activity Compare volume Measure capacity (1) Measure capacity (2)	Solving mass problems [PM5.05] Volume and capacity [PM5.06]
Week 11		Compare capacity Add and subtract capacity Temperature activity Temperature	Solving volume and capacity problems [PM5.07]

## Primary Mathematics – Year 4

This document shows how CENTURY nuggets align to the English National Curriculum for Mathematics.

Topic / Strand	National Curriculum Statement Pupils should be able to:	Nugget Name
Number and Place Value	count in multiples of 6, 7, 9, 25 and 1,000	Counting in Multiples of 6 [PM1.12]
		Counting in Multiples of 7 [PM1.13]
		Counting in Multiples of 8 [PM1.02]
		Counting in Multiples of 9 [PM1.14]
		Counting in Multiples of 25 [PM1.15]
		Counting in Multiples of 1000 [PM1.16]
	find 1,000 more or less than a given number	Finding 1000 More or 1000 Less [PM1.33]
	count backwards through 0 to include negative numbers	Negative Numbers 1 [PM1.18]
	Negative Numbers 2 (Including Addition and Subtraction) [PM1.19]	
recognise the place value of each digit in a four-digit number (1,000s, 100s, 10s, and 1s)	Place Value in 4 Digit Numbers [PM1.20]	
order and compare numbers beyond 1,000	Comparing and Ordering Numbers [PM1.22]	
round any number to the nearest 10, 100 or 1,000	Rounding to the Nearest 10, 100 and 1000 [PM1.23]	
read Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the concept of 0 and place value	Roman Numerals (up to 100) [PM1.24]	
Number - Addition and Subtraction	add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate	Column Addition (No Exchanging) [PM2.13]
		Column Addition (With Exchanging) [PM2.14]
		Column Subtraction (No Exchanging) [PM2.15]
		Column Subtraction (With Exchanging) [PM2.16]



		Addition and Subtraction Practice 2 [PM2.17]
		Addition and Subtraction Word Problems 2 [PM2.18]
	estimate and use inverse operations to check answers to a calculation	Checking Answers Using the Inverse 2 [PM2.19]
		Estimating to Check Answers [PM2.20]
	solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why	Solving Two-Step Problems [PM2.21]
Number - Multiplication and Division	recall multiplication and division facts for multiplication tables up to 12 × 12 use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together 3 numbers	Multiplying by 2 [PM10.05]
		Multiplying by 3 [PM3.01]
		Multiplying by 4 [PM3.02]
		Multiplying by 5 [PM10.06]
		Multiplying by 6 [PM3.17]
		Multiplying by 7 [PM3.18]
		Multiplying by 8 [PM3.03]
		Multiplying by 9 [PM3.19]
		Multiplying by 10 [PM10.07]
		Multiplying by 11 [PM3.20]
		Multiplying by 12 [PM3.21]
		Mixed Multiplication (Within the Times Tables) [PM3.22]
		Dividing by 2 [PM10.08]
		Dividing by 3 [PM3.05]
		Dividing by 4 [PM3.06]
Dividing by 5 [PM10.09]		
Dividing by 6 [PM3.23]		
Dividing by 7 [PM3.24]		
Dividing by 8 [PM3.07]		

		Dividing by 9 [PM3.25]
		Dividing by 10 [PM10.10]
		Dividing by 11 [PM3.26]
		Dividing by 12 [PM3.27]
		Mixed Division (Within the Times Tables) [PM3.28]
		Multiplying 3 Numbers Together [PM3.29]
	recognise and use factor pairs and commutativity in mental calculations	Factor Pairs [PM3.30]
	multiply two-digit and three-digit numbers by a one-digit number using formal written layout	Multiplying Multiples of 10 [PM3.09]
		Multiplying Using Partitioning [PM3.10]
		2/3-Digit: Multiplying by 1-Digit [PM3.31]
	solve problems involving multiplying and adding, including using the distributive law to multiply two-digit numbers by 1 digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects	Scaling Problems 2 [PM3.32]
		Correspondence Problems 1 [PM3.33]
		Correspondence Problems 2 [PM3.34]
Number - Fractions (Including Decimals)	recognise and show, using diagrams, families of common equivalent fractions	Equivalent Fractions 1 [PM4.05]
	count up and down in hundredths; recognise that hundredths arise when dividing an object by 100 and dividing tenths by 10	Hundredths [PM4.09]
	solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number	Finding Unit Fractions of Amounts [PM4.06]
		Finding Non-Unit Fractions of Amounts [PM4.07]
	add and subtract fractions with the same denominator	Finding Fractions of Amounts [PM4.08]
	recognise and write decimal equivalents of any number of tenths or hundreds	Adding and Subtracting Fractions [PM4.04]
	recognise and write decimal equivalents to quarter, half, three quarters	Decimal Equivalents (Tenths/Hundredths) [PM4.10]
find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths	Decimal Equivalents (Quarter, Half and Three Quarters) [PM4.11]	
	Dividing and Multiplying by 10 and 100 (Including Decimals) [PM4.12]	

	round decimals with 1 decimal place to the nearest whole number	Rounding Decimals to the Nearest Whole Number [PM4.13]
	compare numbers with the same number of decimal places up to two decimal places	Comparing Decimals [PM4.14]
	solve simple measure and money problems involving fractions and decimals to two decimal places.	Included in Nuggets Above
Measurement	convert between different units of measure [for example, kilometre to metre; hour to minute]	Converting mm and cm [PM5.11]
		Converting cm and m [PM5.12]
		Converting m and km [PM5.13]
		Converting Length [PM5.14]
		Converting Seconds, Minutes and Hours [PM7.14]
	measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres	Calculating the Perimeter [PM5.19]
	find the area of rectilinear shapes by counting squares	Area by Counting [PM5.20]
		Area [PM5.21]
	estimate, compare and calculate different measures, including money in pounds and pence	Mass and Weight [PM5.04]
		Measuring Mass [PM5.15]
		Converting Mass [PM5.16]
		Solving Mass Problems [PM5.05]
		Volume and Capacity [PM5.06]
		Measuring Volume [PM5.17]
		Converting Volume [PM5.18]
Solving Volume and Capacity Problems [PM5.07]		
Pounds and Pence [PM6.06]		

		Adding Amounts of Money [PM6.01]
		Adding Amounts of Money 2 [PM6.02]
		Comparing Amounts of Money [PM6.07]
		Estimating Amounts of Money [PM6.08]
		Finding Change [PM6.03]
		Subtracting Amounts of Money [PM6.04]
		Solving Money Problems 1 [PM6.09]
		Solving Money Problems 2 [PM6.10]
	read, write and convert time between analogue and digital 12- and 24-hour clocks	12 Hour and 24 Hour Clocks [PM7.09]
solve problems involving converting from hours to minutes, minutes to seconds, years to months, weeks to days	Converting Seconds, Minutes and Hours [PM7.14]	
	Converting Weeks, Days, Years and Months [PM7.13]	
Geometry - Properties of Shapes	compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes	Triangles [PM8.11]
		Quadrilaterals [PM8.12]
		Sorting Shapes [PM8.13]
	identify acute and obtuse angles and compare and order angles up to two right angles by size	Identifying Angles [PM8.05]
	Identify lines of symmetry in 2-D shapes presented in different orientations	Lines of Symmetry [PM8.07]
complete a simple symmetric figure with respect to a specific line of symmetry.		
Geometry - Position and Direction	describe positions on a 2-D grid as coordinates in the first quadrant	Describing Position [PM8.14]
	describe movements between positions as translations of a given unit to the left/right and up/down	Translation [PM8.16]
	plot specified points and draw sides to complete a given polygon.	Plotting Points [PM8.15]
Statistics	interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs. solve comparison, sum and difference problems using information	Tables 1 [PM9.02]
		Pictograms [PM9.01]

	presented in bar charts, pictograms, tables and other graphs.	Bar Charts 1 [PM9.03]
		Line Graphs [PM9.04]

This mapping of CENTURY nuggets to the White Rose Lesson-by-lesson Overview can be used to complement your use of the White Rose Scheme of Learning.

### YEAR 4

Week	Topic	White Rose Lesson by Lesson Overview	CENTURY Nugget Name
<b>AUTUMN</b>			
Week 1	Number and Place value	Numbers to 1,000 100s, 10s and 1s Number line to 1,000 Round to the nearest 10 Round to the nearest 100	3-Digit: Recognising place value [PM1.05] Number lines to 1000 [PM1.37] 3-Digit: Rounding to the nearest 10 and 100 [PM2.10]
Week 2		Count in 1000s Represent numbers to 10,000 activity 1000s, 100s, 10s and 1s Partitioning The number line to 10,000	Place value in 4 digit numbers [PM1.20] Counting in multiples of 1000 [PM1.16]
Week 3		Find 1, 10, 100 more or less 1,000 more or less Compare 4-digit numbers Order numbers Round to the nearest 1,000	Finding 10 more or 10 less [PM1.07] Finding 100 more or 100 less [PM1.08] Finding 1000 more or less [PM1.17] Comparing and ordering numbers [PM1.22] Rounding to the nearest 10, 100 and 1000 [PM1.23]
Week 4		Count in 25s Introducing negative numbers activity Negative numbers Roman numerals	Counting in multiples of 25 [PM1.15] Negative numbers 1 [PM1.18] Roman numerals (up to 20) [PM7.07] Roman numerals (up to 100) [PM1.24]
Week 5	Addition and Subtraction	Add and subtract 1s, 10s, 100s and 1,000s Add two 3-digit numbers - not crossing 10 or 100 Add two 4-digit numbers - no exchange Add two 3-digit numbers - crossing 10 or 100 Add two 4-digit numbers - one exchange	3-Digit: Adding and subtracting 1s [PM2.01] 3-Digit: Adding and subtracting 10s [PM2.02] 3-Digit: Adding and subtracting 100s [PM2.03] 3-Digit: Column addition (no exchanging) [PM2.04] 4-Digit: Column addition (no exchanging) [PM2.13] 3-Digit: Column addition (with exchanging) [PM2.05]

Week 6	Addition and Subtraction	Add two 4-digit numbers - more than one exchange Subtract a 3-digit number from a 3-digit number - no exchange Subtract two 4-digit numbers - no exchange Subtract a 3-digit number from a 3-digit number - exchange Subtract two 4-digit numbers - one exchange	4-Digit: Column addition (with exchanging) [PM2.14] 3-Digit: Column subtraction (no exchanging) [PM2.06] 4-Digit: Column subtraction (no exchanging) [PM2.15] 3-Digit: Column subtraction (with exchanging) [PM2.07]
Week 7		Subtract two 4-digit numbers - more than one exchange Efficient Subtraction Estimate answers Checking strategies	4-Digit: Column subtraction (with exchanging) [PM2.16] Estimating to check answers [PM2.20] Checking answers using the inverse 2 [PM2.19]
Week 8	Measurement	Equivalent lengths - m and cm Equivalent lengths - mm and cm Kilometres Add lengths Subtract lengths	Converting cm and m [PM5.12] Converting mm and cm [PM5.11] Converting m and km [PM5.13] Solving length problems [PM5.03]
Week 9		Measure perimeter Perimeter on a grid Perimeter of a rectangle Perimeter of rectilinear shapes	Perimeter by counting [PM5.08] Calculating the perimeter [PM5.09]
Week 10	Multiplication and Division	Multiply by 10 Multiply by 100 Divide by 10 Divide by 100 Multiply by 1 and 0	Dividing and multiplying by 10 and 100 (including decimals) [PM4.12]
Week 11		Divide by 1 and itself Multiply and divide by 3 The 3 times-table Multiply and divide by 6 6 times-table and division facts	Counting in multiples of 3 [PM10.02] Multiplying by 3 [PM3.01] Dividing by 3 [PM3.05] Counting in multiples of 6 [PM1.12] Multiplying by 6 [PM3.17] Dividing by 6 [PM3.23]
Week 12		Multiply and divide by 9 9 times-table and division facts Multiply and divide by 7 7 times-table and division facts	Counting in multiples of 9 [PM1.14] Multiplying by 9 [PM3.19] Dividing by 9 [PM3.25] Counting in multiples of 7 [PM1.13] Multiplying by 7 [PM3.18] Dividing by 7 [PM3.24]

SPRING			
Week 1	Multiplication and Division	11 and 12 times-table Multiply 3 numbers Factor pairs Efficient multiplication Written methods	Multiplying by 11 [PM3.20] Multiplying by 12 [PM3.21] Dividing by 11 [PM3.26] Dividing by 12 [PM3.27] Multiplying 3 numbers together [PM3.29] Factor pairs [PM3.30]
Week 2		Multiply 2-digits by 1-digit Multiply 3-digits by 1-digit Divide 2-digits by 1-digit Divide 2-digits by 1-digit (1)	Multiplying using partitioning [PM3.10] 2-Digit: Multiplying by 1-digit [PM3.12] 2/3-Digit: Multiplying by 1-digit [PM3.31] 2-Digit: Dividing using partitioning (no remainders) [PM3.60]
Week 3		Divide 2-digits by 1-digit Divide 2-digits by 1-digit (2) Divide 3-digits by 1-digit Correspondence problems	2-Digit: Dividing using partitioning (with remainders) [PM3.61] 2/3-Digit: Dividing using partitioning (no remainders) [PM3.35] 2/3-Digit: Dividing using partitioning (with remainders) [PM3.36] 2/3-Digit: Dividing using written methods [PM3.37] Correspondence problems 1 [PM3.33] Correspondence problems 2 [PM3.34]
Week 4	Area	What is area? Counting squares Making shapes Comparing area	Area by counting [PM5.20] Area [PM5.21]
Week 5	Fractions	Unit and non-unit fractions What is a fraction? Tenths Count in tenths Equivalent fractions (1)	Identifying fractions [PM4.01] Tenths [PM4.02]
Week 6		Equivalent fractions (2) Equivalent fractions (1) Equivalent fractions (2) Fractions greater than 1 Count in fractions	Equivalent fractions 1 [PM4.05] Counting in fractions [PM4.40]
Week 7		Add fractions Add 2 or more fractions Subtract fractions Subtract 2 fractions Subtract from whole amounts	Adding and subtracting fractions [PM4.04]



Week 8	Fractions	Fractions of a set of objects (1) Fractions of a set of objects (2) Calculate fractions of a quantity Problem solving - calculate quantities	Finding unit fractions of amounts [PM4.06] Finding non-unit fractions of amounts [PM4.07] Finding fractions of amounts [PM4.08]
Week 9	Decimals	Tenths and hundredths activity Recognise tenths and hundredths Tenths as decimals Tenths on a place value grid Tenths on a number line	Tenths [PM4.02] Hundredths [PM4.09] 2dp: Recognising place value in decimals [PM1.21]
Week 10		Divide 1-digit by 10 Divide 2-digits by 10 Hundredths Hundredths as decimals Hundredths on a place value grid	Dividing and multiplying by 10 and 100 (including decimals) [PM4.12] Hundredths [PM4.09] Recognising place value in decimals [PM1.21]
Week 11		Divide 1 or 2-digits by 100	Dividing and multiplying by 10 and 100 (including decimals) [PM4.12]
<b>SUMMER</b>			
Week 1	Fractions and Decimals	Bonds to 10 and 100 Make a whole Write decimals activity Write decimals activity Compare decimals	Number bonds to 100 [PM2.31] 2dp: Decimal complements to 1 [PM4.37] Recognising place value in decimals [PM1.21] Comparing decimals [PM4.14]
Week 2		Order decimals Round decimals activity Round decimals Halves and quarters	Rounding decimals to the nearest whole number [PM4.13] Decimal equivalents (quarter, half and three quarters) [PM4.11]
Week 3	Money	Pounds and pence Ordering money Estimating money Convert pounds and pence Add money	Pounds and pence [PM6.06] Comparing amounts of money [PM6.07] Estimating amounts of money [PM6.08] Adding amounts of money [PM6.01]
Week 4		Subtract money Find change Working with money activity Four operations	Subtracting amounts of money [PM6.04] Finding change [PM6.03] Solving money problems 1 [PM6.09] Solving money problems 2 [PM6.10]

Week 5	Time	Telling the time to 5 minutes Telling the time to the minute Using a.m. and p.m. 24-hour clock Hours, minutes and seconds	Telling the time to the nearest 5 minutes [PM7.04] Telling the time to the nearest minute [PM7.06] 12 hour and 24 hour clocks [PM7.09] Converting seconds, minutes and hours [PM7.14]
Week 6		Years, months, weeks and days Analogue to digital - activity Analogue to digital - 12 hour Analogue to digital - 24 hour	Converting weeks, days, years and months [PM7.13] 12 hour and 24 hour clocks [PM7.09]
Week 7	Statistics	Interpret charts Comparison, sum and difference Introducing line graphs Line graphs	Pictograms [PM9.01] Bar charts 1 [PM9.03] Tables 1 [PM9.02] Line graphs 1 [PM9.04]
Week 8	Geometry	Turns and angles Right angles in shapes Compare angles Identify angles Compare and order angles	Angles in turns 1 [PM8.04] Identifying angles [PM8.05]
Week 9		Recognise and describe 2-D shapes Triangles activity Triangles Quadrilaterals activity Quadrilaterals	Describing 2D shapes [PM8.01] Triangles [PM8.11] Quadrilaterals [PM8.12]
Week 10		Symmetry activity Horizontal and vertical Lines of symmetry Complete a symmetric figure	Identifying lines [PM8.06] Lines of symmetry [PM8.07]
Week 11	Position and Direction	Describe position Draw on a grid Move on a grid Describe movement on a grid	Describing position [PM8.14] Plotting points [PM8.15] Translation [PM8.16]

## Primary Mathematics – Year 5

This document shows how CENTURY nuggets align to the English National Curriculum for Mathematics.

Topic / Strand	National Curriculum Statement Pupils should be able to:	Nugget Name
Number and Place Value	read, write, order and compare numbers to at least 1,000,000 and determine the value of each digit	Place Value up to 1,000,000 [PM1.25]
		Comparing and Ordering Numbers to 1,000,000 [PM1.26]
	count forwards or backwards in steps of powers of 10 for any given number up to 1,000,000	Counting Forwards and Backwards in Powers of 10 [PM1.27]
	interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through 0	Negative Numbers 1 [PM1.18]
		Negative Numbers 2 (Including Addition and Subtraction) [PM1.19]
	round any number up to 1,000,000 to the nearest 10, 100, 1,000, 10,000 and 100,000	Rounding to the Nearest 10, 100 and 1000 [PM1.23]
	solve number problems and practical problems that involve all of the above	Rounding to the Nearest 10,000 and 100,000 [PM1.28]
		Included in Nuggets Above
Roman Numerals (up to 20) [PM7.07]		
Roman Numerals (up to 100) [PM1.24]		
read Roman numerals to 1,000 (M) and recognise years written in Roman numerals	Roman Numerals (up to 1000) [PM1.29]	
Addition and Subtraction	add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction)	4+ Digit: Column Addition [PM2.22]
		4+ Digit: Column Subtraction [PM2.23]
	add and subtract numbers mentally with increasingly large numbers	Mental Strategies for Addition 1 [PM2.24]
		Mental Strategies for Addition 2 [PM2.25]
		Mental Strategies for Subtraction 1 [PM2.26]
		Mental Strategies for Subtraction 2 [PM2.27]

	use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy	Estimating to Check Answers [PM2.20]
	solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why	Solving Two-Step Problems [PM2.21]
Multiplication and Division	identify multiples and factors, including finding all factor pairs of a number, and common factors of 2 numbers	Factor Pairs [PM3.30] Common Factors [PM3.40]
	know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers	Prime Numbers [PM3.41] Prime Factors [PM3.42]
	establish whether a number up to 100 is prime and recall prime numbers up to 19	
	multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two-digit numbers	3/4-Digit: Multiplying by 1-Digit [PM3.50]
		2-Digit: Multiplying by 2-Digits [PM3.51]
		3/4-Digit: Multiplying by 2-Digits [PM3.52]
	multiply and divide numbers mentally, drawing upon known facts	Mental Strategies for Multiplication 1 [PM3.47]
		Mental Strategies for Multiplication 2 [PM3.48]
		Mental Strategies for Division [PM3.49]
	divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context	3/4-Digit: Dividing by 1-Digit Numbers Using Short Division (without Remainders) [PM3.53]
		3/4-Digit: Dividing by 1-Digit Numbers Using Short Division (with Remainders) [PM3.54]
	multiply and divide whole numbers and those involving decimals by 10, 100 and 1,000	Multiplying by 10, 100 and 1000 (Involving Decimals up to 3 d.p.) [PM3.45]
		Dividing by 10, 100 and 1000 (Involving Decimals Up to 3 d.p.) [PM3.46]
	recognise and use square numbers and cube numbers, and the notation for squared ( $^2$ ) and cubed ( $^3$ )	Square Numbers [PM3.43]
Cube Numbers [PM3.44]		
solve problems involving multiplication and division, including using their knowledge of factors and multiples, squares and cubes	Included in Nuggets Above	

	solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign	Understanding the Equals Sign [PM11.01]
		Solving Multistep Problems 1 (with Multiplication) [PM11.02]
		Solving Multistep Problems 2 (with Division) [PM11.03]
	solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates	Scaling Problems [PM3.32] Multistep Scaling Problems [PM11.04]
Fractions (Including Decimals and Percentages)	identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths	Equivalent Fractions 2 [PM4.15]
	compare and order fractions whose denominators are all multiples of the same number	Comparing Proper Fractions 1 [PM4.16]
		Comparing and Ordering Improper Fractions and Mixed Numbers [PM4.18]
	recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements $> 1$ as a mixed number [for example, $2/5 + 4/5 = 6/5 = 1\ 1/5$ ]	Mixed Numbers and Improper Fractions [PM4.17]
	add and subtract fractions with the same denominator, and denominators that are multiples of the same number	Adding and Subtracting Fractions [PM4.04]
		Adding and Subtracting Fractions with Different Denominators [PM4.27]
		Adding and Subtracting Mixed Numbers 1 [PM4.29]
	multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams	Multiplying Fractions by Whole Numbers [PM4.28]
		Multiplying Mixed Numbers by Whole Numbers [PM4.30] Fractions as Operators [PM4.31]
	read and write decimal numbers as fractions [for example, $0.71 = 71/100$ ]	Decimal Equivalents (Quarter, Half and Three Quarters) [PM4.11]
		Decimal Equivalents (Tenths/Hundredths) [PM4.10]
	recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents	Thousandths [PM12.01]
	round decimals with 2 decimal places to the nearest whole number and to 1 decimal place	Rounding Decimals to the Nearest Whole Number [PM4.13]
Rounding Decimals [PM12.03]		
read, write, order and compare numbers with up to 3 decimal places	3dp: Recognising Place Value in Decimals. [PM12.02]	

		Comparing Decimals [PM4.14]
	solve problems involving number up to 3 decimal places	Adding and Subtracting Decimals (within 1) [PM12.14]
		3dp: Decimal Complements to 1 [PM12.15]
		Adding and Subtracting Decimals [PM12.04]
	recognise the percent symbol (%) and understand that per cent relates to 'number of parts per 100', and write percentages as a fraction with denominator 100, and as a decimal fraction	Introduction to Percentages [PM12.05]
	solve problems which require knowing percentage and decimal equivalents of $\frac{1}{2}$ , $\frac{1}{4}$ , $\frac{1}{5}$ , $\frac{2}{5}$ , $\frac{3}{5}$ and those fractions with a denominator of a multiple of 10 or 25	Fractions, Decimals and Percentages 1 [PM12.06]
		Finding Percentages 1 [PM12.07]
Finding Percentages 2 [PM12.08]		
Measurement	convert between different units of metric measure [for example, kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre]	Converting mm and cm [PM5.11]
		Converting cm and m [PM5.12]
		Converting m and km [PM5.13]
		Converting Length [PM5.14]
		Converting Mass [PM5.16]
		Converting Volume [PM5.18]
		Solving Length Problems with Conversion [PM5.23]
		Solving Mass Problems with Conversion [PM5.25]
	Solving Volume and Capacity Problems with Conversion [PM5.27]	
	understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints	Imperial Units of Length [PM5.22]
		Imperial Units of Mass [PM5.24]
		Imperial Units of Volume and Capacity [PM5.26]
	measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres	Calculating the Perimeter 2 [PM13.01]
	calculate and compare the area of rectangles (including squares), including using standard units, square centimetres (cm <sup>2</sup> ) and square metres (m <sup>2</sup> ), and estimate the area of irregular shapes	Area of Rectangles [PM13.02]
Area of Compound Shapes [PM13.03]		

		Estimating Area [PM13.04]
	estimate volume [for example, using 1 cm <sup>3</sup> blocks to build cuboids (including cubes)] and capacity [for example, using water]	Volume of Shapes 1 [PM13.06]
	solve problems involving converting between units of time	Converting Weeks, Days, Years and Months [PM7.13]
		Converting Seconds, Minutes and Hours [PM7.14]
		Converting Units of Time [PM7.15]
use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling	Included in Nuggets Above	
Geometry – Properties of Shapes	identify 3-D shapes, including cubes and other cuboids, from 2-D representations	Views of 3D Shapes [PM14.03]
	know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles	Identifying Angles 2 [PM14.05]
		Measuring Angles [PM14.08]
		Estimating Angles [PM14.07]
	draw given angles, and measure them in degrees (°)	Drawing Angles [PM14.09]
	identify angles at a point and 1 whole turn (total 360°)	Angles Around a Point [PM14.12]
	identify angles at a point on a straight line and half a turn (total 180°)	Angles on a Straight Line [PM14.11]
	identify other multiples of 90°	Angles in Turns 2 [PM14.04]
identify use the properties of rectangles to deduce related facts and find missing lengths and angles	Lengths of Right-Angled Shapes [PM14.02]	
identify distinguish between regular and irregular polygons based on reasoning about equal sides and angles	Regular and Irregular Polygons [PM14.01]	
Geometry – Position and Direction	identify, describe and represent the position of a shape following a reflection or translation, using the appropriate language, and know that the shape has not changed	Translation 1 [PM8.16]
		Reflection 2 [PM15.01]

Statistics	solve comparison, sum and difference problems using information presented in a line graph	Bar Charts 2 [PM9.13]
	complete, read and interpret information in tables, including timetables	Line Graphs 2 [PM9.08]
		Tables 2 [PM9.05]
		Two-Way Tables [PM9.06]
		Timetables [PM9.07]



This mapping of CENTURY nuggets to the White Rose Lesson-by-lesson Overview can be used to complement your use of the White Rose Scheme of Learning.

### YEAR 5

Week	Topic	White Rose Lesson by Lesson Overview	CENTURY Nugget Name
<b>AUTUMN</b>			
Week 1	Number and Place value	1000s, 100s, 10s and 1s Numbers to 10,000 Rounding to the nearest 10 Rounding to the nearest 100 Rounding to 10, 100 and 1,000	Place value in 4 digit numbers [PM1.20] Rounding to the nearest 10, 100 and 1000 [PM1.23]
Week 2		Numbers to 100,000 Compare and order numbers to 100,000 Round numbers within 100,000 Numbers to a million Counting in 10s, 100s, 1,000s, 10,000s and 100,000s	Place value up to 1,000,000 [PM1.25] Comparing and ordering numbers [PM1.22] Rounding to the nearest 10,000 and 100,000 [PM1.28] Counting forwards and backwards in powers of 10 [PM1.27]
Week 3		Compare and order numbers to one million Round numbers to one million Negative Numbers Roman numerals	Comparing and ordering numbers to 1,000,000 [PM1.26] Rounding to the nearest 10,000 and 100,000 [PM1.28] Negative numbers 2 (including addition and subtraction) [PM1.19] Roman numerals (beyond 1000) [PM1.30]
Week 4	Addition and Subtraction	Add two 4-digit numbers - one exchange Add two 4-digit numbers - more than one exchange Add whole numbers with more than 4 digits Subtract two 4-digit numbers - one exchange Subtract two 4-digit numbers - more than one exchange	4-Digit: Column addition (with exchanging) [PM2.14] 4+ Digit: Column addition [PM2.22] 4+ Digit: Column subtraction [PM2.23]
Week 5		Subtract whole numbers with more than 4-digits Round to estimate and approximate Inverse operations (addition and subtraction) Multi-step addition and subtraction problems	4-Digit: Column subtraction (with exchanging) [PM2.16] Estimating to check answers [PM2.20] Checking answers using the inverse 2 [PM2.19] Solving two-step problems [PM2.21]

Week 6	Statistics	Interpret charts Comparison, sum and difference Introduce line graphs Read and interpret line graphs Draw line graphs	Bar charts 2 [PM9.13] Line graphs 1 [PM9.04]
Week 7		Use line graphs to solve problems Read and interpret tables Two-way tables Timetables	Line graphs 2 [PM9.08] Tables 2 [PM9.05] Two-way tables [PM9.06] Timetables [PM9.07]
Week 8	Multiplication and Division	Multiples Factors Common factors Prime numbers activity Prime numbers	Factor pairs [PM3.30] Common factors [PM3.40] Prime numbers [PM3.41]
Week 9		Square numbers Cube numbers Multiply by 10 Multiply by 100 Multiply by 10, 100 and 1,000	Square numbers [PM3.43] Cube numbers [PM3.44] Multiplying by 10, 100 and 1000 (involving decimals up to 3 d.p) [PM3.45]
Week 10		Divide by 10 Divide by 100 Divide by 10, 100 and 1,000 Multiples of 10, 100 and 1,000	Dividing by 10, 100 and 1000 (involving decimals up to 3 d.p) [PM3.46] Mental strategies for multiplication 1 [PM3.47]
Week 11	Area and perimeter	Measure perimeter Perimeter on a grid Perimeter of rectangles Perimeter of rectilinear shapes Calculate perimeter	Perimeter by counting [PM5.08] Calculating the perimeter [PM5.09] Calculating the perimeter 2 [PM13.01]
Week 12		Counting squares Area of rectangles Area of compound shapes Area of irregular shapes	Area by counting [PM5.20] Area of rectangles [PM13.02] Area of compound shapes [PM13.03]

SPRING			
Week 1	Multiplication and Division	Multiply 2-digits by 1-digit Multiply 3-digits by 1-digit Multiply 4-digits by 1-digit Area model activity Multiply 2-digits (area model)	2/3-Digit: Multiplying by 1-digit [PM3.31] 3/4-Digit: Multiplying by 1-digit [PM3.50] 2-Digit: Multiplying by 2-digits [PM3.51] 3/4-Digit: Multiplying by 2-digits [PM3.52]
Week 2		Multiply 2-digits by 2-digits Multiply 3-digits by 2-digits Multiply 4-digits by 2-digits (basic practice) Multiply 4-digits by 2-digits Divide 2-digits by 1-digit (1)	2-Digit: Multiplying by 2-digits [PM3.51] 3/4-Digit: Multiplying by 2-digits [PM3.52] 2/3-Digit: Dividing using partitioning (no remainders) [PM3.35]
Week 3		Divide 2-digits by 1-digit (2) Divide 3-digits by 1-digit Divide 4-digits by 1-digit Divide with remainders	2/3-Digit: Dividing using partitioning (with remainders) [PM3.36] 2/3-Digit: Dividing using written methods [PM3.37] 3/4-Digit: Dividing by 1-digit numbers using short division (without remainders) [PM3.53] 3/4-Digit: Dividing by 1-digit numbers using short division (with remainders) [PM3.54]
Week 4	Fractions	What is a fraction? Equivalent fractions Equivalent fractions Fractions greater than 1 Improper fractions to mixed numbers	Identifying fractions [PM4.01] Equivalent fractions 1 [PM4.05] Equivalent fractions 2 [PM4.15] Mixed numbers and improper fractions [PM4.17]
Week 5		Mixed numbers to improper fractions Number sequences Compare fractions less than 1 Order fractions less than 1 Compare fractions greater than 1	Mixed numbers and improper fractions [PM4.17] Comparing and ordering fractions [PM4.03] Comparing proper fractions 1 [PM4.16] Comparing and ordering improper fractions and mixed numbers [PM4.18]
Week 6		Order fractions greater than 1 Add and subtract fractions Add fractions within 1 activity Add 3 or more fractions	Comparing and ordering improper fractions and mixed numbers [PM4.18] Adding and subtracting fractions [PM4.04]
Week 7		Add fractions Add mixed numbers activity Add mixed numbers Subtract fractions Subtract mixed numbers	Adding and subtracting fractions with different denominators [PM4.27] Adding and subtracting mixed numbers 1 [PM4.29]

Week 8	Fractions	Subtraction - breaking the whole Subtract 2 mixed numbers Multiply unit fractions by an integer Multiply non-unit fractions by an integer Multiply mixed numbers by integers	Multiplying fractions by whole numbers [PM4.28] Multiplying mixed numbers by whole numbers [PM4.30]
Week 9		Calculate fractions of a quantity Fraction of an amount Using fractions as operators Fraction problem solving	Finding fractions of amounts [PM4.08] Fractions as operators [PM4.31]
Week 10	Fractions, Decimals and Percentages	Decimals up to 2 d.p. Decimals as fractions (1) Decimals as fractions (2) Understand thousandths Thousandths as decimals	2dp: Recognising place value in decimals [PM1.21] 3dp: Recognising place value in decimals [PM12.02] Decimal equivalents (tenths/hundredths) [PM4.10] Thousandths [PM12.01]
Week 11		Rounding decimals Order and compare decimals Understand percentages Percentages as fractions and decimals Equivalent FDP	Rounding decimals [PM12.03] Comparing decimals [PM4.14] Introduction to percentages [PM12.05] Fractions, decimals and percentages 1 [PM12.06]
<b>SUMMER</b>			
Week 1	Decimals	Consolidate decimals from the Spring Term	Thousandths [PM12.01] Rounding decimals [PM12.03] Comparing decimals [PM4.14]
Week 2		Adding decimals within 1 Subtracting decimals within 1 Complements to 1 Adding decimals - crossing the whole Adding decimals with the same number of decimal places	Adding and subtracting decimals (within 1) [PM12.14] 3dp: Decimal complements to 1 [PM12.15]
Week 3		Subtracting decimals with the same number of decimal places Adding and subtracting decimals with the same number of decimal places problem solving Adding decimals with a different number of decimal places Subtracting decimals with a different number of decimal places Adding and subtracting decimals with a different number of decimal places problem solving	Adding and subtracting decimals [PM12.04]

Week 4	Decimals	<p>Adding and subtracting wholes and decimals</p> <p>Decimal sequences</p> <p>Multiplying decimals by 10, 100 and 1,000</p> <p>Dividing decimals by 10, 100 and 1,000</p>	<p>Multiplying by 10, 100 and 1000 (involving decimals up to 3 d.p) [PM3.45]</p> <p>Dividing by 10, 100 and 1000 (involving decimals up to 3 d.p) [PM3.46]</p>
Week 5	Geometry	<p>Identify angles</p> <p>Compare and order angles</p> <p>Measuring angles in degrees</p> <p>Measuring with a protractor (1)</p> <p>Measuring with a protractor (2)</p>	<p>Identifying angles 2 [PM14.05]</p> <p>Estimating angles [PM14.07]</p> <p>Measuring angles [PM14.08]</p>
Week 6		<p>Drawing lines and angles accurately activity</p> <p>Drawing lines and angles accurately</p> <p>Calculating angles on a straight line</p> <p>Calculating angles around a point</p> <p>Triangles</p>	<p>Drawing angles [PM14.09]</p> <p>Angles on a straight line [PM14.11]</p> <p>Angles around a point [PM14.12]</p> <p>Triangles [PM8.11]</p>
Week 7		<p>Quadrilaterals</p> <p>Calculating lengths and angles in shapes</p> <p>Regular and irregular polygons</p> <p>Reasoning about 3-D shapes</p>	<p>Quadrilaterals [PM8.12]</p> <p>Regular and irregular polygons [PM14.01]</p> <p>Views of 3D shapes [PM14.03]</p>
Week 8		Position and Direction	<p>Describe position</p> <p>Draw on a grid</p> <p>Position in the first quadrant</p> <p>Translation</p> <p>Translation with coordinates</p>
Week 9	<p>Lines of symmetry</p> <p>Complete a symmetric figure</p> <p>Reflection</p> <p>Reflection with coordinates</p>		<p>Lines of symmetry [PM8.07]</p> <p>Reflection 1 [PM15.01]</p>
Week 10	Measurement	<p>Kilometres</p> <p>Kilograms and kilometres</p> <p>Millimetres and millilitres</p> <p>Metric units activity</p> <p>Metric units</p>	<p>Solving length problems with conversion [PM5.23]</p> <p>Solving mass problems with conversion [PM5.25]</p> <p>Solving mass problems with conversion [PM5.25]</p>

Week 11	Measurement	Imperial units activity Imperial units Converting units of time Timetables	Imperial units of length [PM5.22] Imperial units of mass [PM5.24] Imperial units of volume and capacity [PM5.26] Converting units of time [PM7.15] Timetables [PM9.07]
Week 12		What is volume? Compare volume Estimate volume Estimate capacity	Volume of shapes 1 [PM13.06] Estimating volume and capacity [PM5.28]

## Primary Mathematics – Year 6

This document shows how CENTURY nuggets align to the English National Curriculum for Mathematics.

Topic / Strand	National Curriculum Statement Pupils should be able to:	Nugget Name
Number and Place Value	read, write, order and compare numbers up to 10,000,000 and determine the value of each digit	Place Value up to 10,000,000 [PM1.31]
	round any whole number to a required degree of accuracy	Rounding to the Nearest 10, 100 and 1000 [PM1.23]
	use negative numbers in context, and calculate intervals across 0	Rounding to the Nearest 10,000 and 100,000 [PM1.28]
	solve number and practical problems that involve all of the above	Negative Numbers 2 (Including Addition and Subtraction) [PM1.19]
Addition, Subtraction, Multiplication and Division	multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication	Negative Numbers 3 [PM1.32]
		Included in Nuggets Above
	divide numbers up to 4 digits by a two-digit whole number using the formal written method of long division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context	Multiplying 2 Digit Numbers by 2 Digit Numbers [PM3.51]
		3/4-Digit: Multiplying by 2-Digits [PM3.52]
		Long Division 1 (Dividing by a Single Digit Number) [PM3.57]
	divide numbers up to 4 digits by a two-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context	Long Division 2 (Dividing by a 2 Digit Number) [PM3.58]
		3/4-Digit: Dividing by 1-Digit Numbers Using Short Division (without Remainders) [PM3.53]
		3/4-Digit: Dividing by 1-Digit Numbers Using Short Division (with Remainders) [PM3.54]
	perform mental calculations, including with mixed operations and large numbers	Dividing by 2 Digit Numbers Using Short Division [PM3.56]
		Mental Strategies for Addition 1 [PM2.24]
Mental Strategies for Addition 2 [PM2.25]		
		Mental Strategies for Subtraction 1 [PM2.26]

		Mental Strategies for Subtraction 2 [PM2.27]
		Mental Strategies for Multiplication 1 [PM3.47]
		Mental Strategies for Multiplication 2 [PM3.48]
		Mental Strategies for Division [PM3.49]
	identify common factors, common multiples and prime numbers	Common Factors [PM3.40]
		Prime Numbers [PM3.41]
		Common Multiples [PM3.55]
	use their knowledge of the order of operations to carry out calculations involving the 4 operations	Operations of Equal Priority [PM11.05]
		BIDMAS: 4 Operations and Brackets [PM11.06]
		BIDMAS: Indices [PM11.07]
	solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why	Multi Step Addition and Subtraction Problems [PM2.28]
		Solving Multistep Problems 1 (with Multiplication) [PM11.02]
Solving Multistep Problems 2 (with Division) [PM11.03]		
solve problems involving addition, subtraction, multiplication and division	4+ Digit: Column Addition [PM2.22]	
	4+ Digit: Column Subtraction [PM2.23]	
	Included in Nuggets Above	
use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy	Estimating to Check Answers [PM2.20]	
Fractions (Including Decimals and Percentages)	use common factors to simplify fractions; use common multiples to express fractions in the same denomination	Simplifying Fractions [PM4.23]
	compare and order fractions, including fractions >1	Comparing Proper Fractions 1 [PM4.16]
		Comparing Proper Fractions 2 [PM4.21]
		Comparing and Ordering Improper Fractions and Mixed Numbers [PM4.18]
	add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions	Adding and Subtracting Fractions with Different Denominators [PM4.27]
		Adding and Subtracting Fractions with Different Denominators 2 [PM4.32]
		Adding and Subtracting Mixed Numbers 1 [PM4.29]



		Adding and Subtracting Mixed Numbers 2 [PM4.33]
	multiply simple pairs of proper fractions, writing the answer in its simplest form [for example, $\frac{1}{4} \times \frac{1}{2} = \frac{1}{8}$ ]	Multiplying Simple Pairs of Proper Fractions [PM4.24]
	divide proper fractions by whole numbers [for example, $\frac{1}{3} \div 2 = \frac{1}{6}$ ]	Dividing Fractions by Whole Numbers [PM4.25]
	associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a simple fraction [for example, $\frac{3}{8}$ ]	Fractions to Decimals Using Division [PM12.12]
	identify the value of each digit in numbers given to 3 decimal places and multiply and divide numbers by 10, 100 and 1,000 giving answers up to 3 decimal places	Recognising Place Value in Decimals up to 3 d.p. [PM12.02]
		Multiplying by 10, 100 and 1000 (Involving Decimals up to 3 d.p.) [PM3.45]
		Dividing by 10, 100 and 1000 (Involving Decimals Up to 3 d.p.) [PM3.46]
	multiply one-digit numbers with up to 2 decimal places by whole numbers	Multiplying Decimals [PM12.09]
	use written division methods in cases where the answer has up to 2 decimal places	Dividing Decimals [PM12.10]
	solve problems which require answers to be rounded to specified degrees of accuracy	Included in Nuggets Above
	recall and use equivalences between simple fractions, decimals and percentages, including in different contexts	Fractions, Decimals and Percentages 2 [PM12.13]
Ratio and Proportion	solve problems involving the relative sizes of 2 quantities where missing values can be found by using integer multiplication and division facts	Introduction to Ratio [PM17.01]
		Simplifying Ratios [PM17.02]
		Proportion [PM17.06]
	solve problems involving the calculation of percentages [for example, of measures and such as 15% of 360] and the use of percentages for comparison	Finding percentages of amounts 1
		Finding percentages of amounts 2
		Finding percentages of amounts 3
		Finding percentages of amounts 4
	solve problems involving similar shapes where the scale factor is known or can be found	Similar Shapes [PM17.05]
	solve problems involving unequal sharing and grouping using knowledge of fractions and multiples	Ratios and Fractions [PM17.03]

		Sharing into a Given Ratio [PM17.04]
Algebra	use simple formulae	Function Machines [PM18.02] Formulae [PM18.07]
	generate and describe linear number sequences	Sequences [PM18.01]
	express missing number problems algebraically	Forming Expressions 1 [PM18.03]
		Forming Expressions 2 [PM18.04]
		Forming Expressions 3 [PM18.05]
		Substitution [PM18.06]
		Solving 1 Step Equations [PM18.08]
	find pairs of numbers that satisfy an equation with 2 unknowns	Solving 2 Step Equations [PM18.09] Satisfying Equations with 2 Variables [PM18.10]
enumerate possibilities of combinations of 2 variables	Enumerating Possibilities [PM18.11]	
Measurements	solve problems involving the calculation and conversion of units of measure, using decimal notation up to 3 decimal places where appropriate	Converting Length [PM5.14] Converting Mass [PM5.16] Converting Volume [PM5.18]
	use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to up to 3 decimal places	Converting Metric Measures [PM5.29]
	convert between miles and kilometres	Converting Miles and Kilometres [PM5.30]
	recognise that shapes with the same areas can have different perimeters and vice versa	Area and Perimeter [PM13.05]
	recognise when it is possible to use formulae for area and volume of shapes	Area of Rectangles [PM13.02]
		Volume of Shapes 2 [PM13.10]
	calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres ( $\text{cm}^3$ ) and cubic metres ( $\text{m}^3$ ), and extending to other units [for example, $\text{mm}^3$ and $\text{km}^3$ ]	Area of Parallelograms [PM13.07]
		Area of Right-Angled Triangles [PM13.08] Area of Triangles [PM13.09]

		Volume of Shapes 2 [PM13.10]
Properties of Shapes	draw 2-D shapes using given dimensions and angles	Nets of Shapes 2 [PM14.14]
	recognise, describe and build simple 3-D shapes, including making nets	
	compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons	Angles in Triangles [PM14.16]
		Angles in Quadrilaterals [PM14.17]
		Angles in Regular Polygons [PM14.18]
	illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius	Circles [PM14.13]
	recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles	Angles Around a Point [PM14.12]
Angles on a Straight Line [PM14.11]		
	Vertically Opposite Angles [PM14.15]	
Position and Direction	describe positions on the full coordinate grid (all 4 quadrants)	Four Quadrants [PM15.02]
	draw and translate simple shapes on the coordinate plane, and reflect them in the axes	Translation 2 [PM15.03]
		Reflection 2 [PM15.04]
Statistics	interpret and construct pie charts and line graphs and use these to solve problems	Line Graphs 3 [PM9.09]
		Pie Charts 1 [PM9.10]
		Pie Charts 2 [PM9.11]
	calculate and interpret the mean as an average	Finding the Mean [PM9.12]

This mapping of CENTURY nuggets to the White Rose Lesson-by-lesson Overview can be used to complement your use of the White Rose Scheme of Learning.

### YEAR 6

Week	Topic	White Rose Lesson by Lesson Overview	CENTURY Nugget Name
<b>AUTUMN</b>			
Week 1	Place Value	Numbers to 10,000 Numbers to 100,000 Numbers to a million Numbers to 10 million Compare and order any number	Place value in 4 digit numbers [PM1.20] Place value up to 1,000,000 [PM1.25] Place value up to 10,000,000 [PM1.31] Comparing and ordering numbers to 1,000,000 [PM1.26]
Week 2		Round numbers to 10, 100 and 1,000 Round any number Negative numbers (in context) Negative numbers (more abstract)	Rounding to the nearest 10, 100 and 1000 [PM1.23] Rounding to the nearest 10,000 and 100,000 [PM1.28] Negative numbers 1 [PM1.18] Negative numbers 2 (including addition and subtraction) [PM1.19] Negative numbers 3 [PM1.32]
Week 3	Addition and Subtraction	Add whole numbers with more than 4 digits Subtract whole numbers with more than 4 digits Inverse operations (addition and subtraction) Multi-step addition and subtraction problems Add and subtract integers	4+ Digits: Column addition [PM2.22] 4+ Digits: Column subtraction [PM2.23] Inverse operations [PM2.29] Multi-step addition and subtraction problems [PM2.28]
Week 4	Multiplication and Division	Multiply 4-digits by 1-digit Multiply 2-digits (area model) Multiply 2-digits by 2-digits Multiply 3-digits by 2-digits Multiply up to a 4-digit number by a 2-digit number	3/4-Digit: Multiplying by 1-digit [PM3.50] 2-Digit: Multiplying by 2-digits [PM3.51] 3/4-Digit: Multiplying by 2-digits [PM3.52]

Week 5	Multiplication and Division	Divide 4-digits by 1-digit Divide with remainders Short division Division using factors Long division (1)	3/4-Digit: Dividing by 1-digit numbers using short division (without remainders) [PM3.53] 3/4-Digit: Dividing by 1-digit numbers using short division (with remainders) [PM3.54] Dividing by 2-digit numbers using short division [PM3.56] Long division 1 (dividing by a single digit number) [PM3.57]
Week 6		Long division (2) Long division (3) Long division (4) Factors Common factors	Long division 1 (dividing by a single digit number) [PM3.57] Long division 2 (dividing by a 2-Digit number) [PM3.58] Division by chunking [PM3.59] Factor pairs [PM3.30] Common factors [PM3.40]
Week 7		Common multiples Primes to 100 Squares and cubes Order of operations Mental calculations and estimation	Common multiples [PM3.55] Prime numbers [PM3.41] Square numbers [PM3.43] Cube numbers [PM3.44] Operations of equal priority [PM11.05] BIDMAS: 4 operations and brackets [PM11.06] BIDMAS: Indices [PM11.07] Mental Strategies for Addition 1 [PM2.24] Mental Strategies for Addition 2 [PM2.25] Mental Strategies for Subtraction 1 [PM2.26] Mental Strategies for Subtraction 2 [PM2.27] Mental strategies for multiplication 1 [PM3.47] Mental strategies for multiplication 2 [PM3.48] Mental strategies for division [PM3.49]
Week 8	Fractions	Reason from known facts Equivalent fractions Simplify fractions Improper fractions to mixed numbers	Equivalent fractions 1 [PM4.05] Equivalent fractions 2 [PM4.15] Simplifying fractions [PM4.23]
Week 9		Mixed numbers to improper fractions Fractions on a number line Compare and order (denominator) Compare and order (numerator) Add and subtract fractions (1)	Mixed numbers and improper fractions [PM4.17] Fractions on a number line 1 [PM4.34] Fractions on a number line 2 [PM4.35] Comparing proper fractions 1 [PM4.16]

Week 10	Fractions	Add and subtract fractions (2) Add mixed numbers Add fractions Subtract mixed numbers	Adding and subtracting fractions with different denominators 2 [PM4.32] Adding and subtracting mixed numbers 2 [PM4.33]
Week 11		Subtract fractions Mixed addition and subtraction Multiply fractions by integers Multiply fractions by fractions Divide fractions by integers (1)	Multiplying fractions by whole numbers [PM4.28] Multiplying simple pairs of proper fractions [PM4.24] Dividing fractions by whole numbers [PM4.25]
Week 12		Divide fractions by integers (2) Four rules with fractions Fractions of an amount Fraction of an amount - find the whole	Dividing fractions by whole numbers [PM4.25] Finding fractions of amounts [PM4.08] Finding fractions of amounts: finding the whole [PM4.36]
Week 13	Position and Direction	The first quadrant Four quadrants Translations Reflections	Plotting points [PM8.15] Four quadrants [PM15.02] Translation 2 [PM15.03] Reflection 2 [PM15.04]
<b>SPRING</b>			
Week 1	Decimals	Decimals up to 2 d.p. Understand thousandths Three decimal places Multiply by 10, 100 and 1,000 Divide by 10, 100 and 1,000	2dp: Recognising place value in decimals [PM1.21] Thousandths [PM12.01] 3dp: Recognising place value in decimals [PM12.02] Multiplying by 10, 100 and 1000 (involving decimals up to 3 d.p) [PM3.45] Dividing by 10, 100 and 1000 (involving decimals up to 3 d.p) [PM3.46]
Week 2		Multiply decimals by integers Divide decimals by integers Division to solve problems Decimals as fractions Fractions to decimals (1)	Multiplying decimals [PM12.09] Dividing decimals [PM12.10] Converting decimals to fractions [PM12.11]
Week 3	Percentages	Fractions to decimals (2) Understand percentages Fractions to percentages Equivalent FDP	Fractions to decimals using division [PM12.12] Introduction to percentages [PM12.05] Finding percentages 1 [PM12.07] Finding percentages 2 [PM12.08] Fractions, decimals and percentages 2 [PM12.13]

Week 4	Percentages	<p>Order FDP</p> <p>Percentage of an amount (1)</p> <p>Percentage of an amount (2)</p> <p>Percentages (missing values)</p>	<p>Fractions, decimals and percentages 1 [PM12.06]</p> <p>Fractions, decimals and percentages 2 [PM12.13]</p> <p>Finding percentages of amounts 1 [PM16.01]</p> <p>Finding percentages of amounts 2 [PM16.02]</p> <p>Finding percentages of amounts 3 [PM16.03]</p> <p>Finding percentages of amounts 4 [PM16.04]</p> <p>Percentages (missing values) [PM16.05]</p>
Week 5	Algebra	<p>Find a rule - one step</p> <p>Find a rule - two step</p> <p>Forming expressions</p> <p>Substitution</p> <p>Formulae</p>	<p>Function machines [PM18.02]</p> <p>Forming expressions 1 [PM18.03]</p> <p>Forming expressions 2 [PM18.04]</p> <p>Forming expressions 3 [PM18.05]</p> <p>Substitution [PM18.06]</p> <p>Formulae [PM18.07]</p>
Week 6		<p>Forming equations</p> <p>Solve simple one-step equations</p> <p>Solve two-step equations</p> <p>Find pairs of values (1)</p> <p>Find pairs of values (2)</p>	<p>Function machines [PM18.02]</p> <p>Forming expressions 1 [PM18.03]</p> <p>Forming expressions 2 [PM18.04]</p> <p>Forming expressions 3 [PM18.05]</p> <p>Solving 1 step equations [PM18.08]</p> <p>Solving 2 step equations [PM18.09]</p> <p>Satisfying equations with 2 variables [PM18.10]</p>
Week 7	Measurement	<p>Metric measures</p> <p>Convert metric measures</p> <p>Calculate with metric measures</p> <p>Miles and kilometres</p> <p>Imperial measures</p>	<p>Converting metric measures [PM5.29]</p> <p>Imperial units of length [PM5.22]</p> <p>Imperial units of mass [PM5.24]</p> <p>Imperial units of volume and capacity [PM5.26]</p>
Week 8	Area, Perimeter and Volume	<p>Shapes - same area</p> <p>Area and perimeter</p> <p>Area of a triangle (1)</p> <p>Area of a triangle (2)</p> <p>Area of a triangle (3)</p>	<p>Area and perimeter [PM13.05]</p> <p>Area of right-angled triangles [PM13.08]</p> <p>Area of triangles [PM13.09]</p>
Week 9		<p>Area of a parallelogram</p> <p>What is volume?</p> <p>Volume - counting cubes</p> <p>Volume of a cuboid</p>	<p>Area of parallelograms [PM13.07]</p> <p>Volume of shapes 1 [PM13.06]</p> <p>Volume of shapes 2 [PM13.10]</p>

Week 10	Ratio and Proportion	Using ratio language Ratio and fractions Introducing the ratio symbol Calculating ratio activity Calculating ratio	Introduction to ratio [PM17.01] Ratios and fractions [PM17.03] Sharing into a given ratio [PM17.04]
Week 11		Using scale factors Calculating scale factors Ratio and proportion problems Ratio and proportion problems (2)	Similar shapes [PM17.05] Proportion [PM17.06]
Week 12	Statistics	Line graphs Circles Read and interpret pie charts Draw pie charts The mean	Line graphs 3 [PM9.09] Circles [PM14.13] Pie charts 1 [PM9.10] Pie charts 2 [PM9.11] Finding the mean [PM9.12]
<b>SUMMER</b>			
Week 1	Geometry	Measure with a protractor Draw lines and angles accurately Introduce angles Angles on a straight line Angles around a point	Measuring angles [PM14.08] Drawing angles [PM14.09] Identifying angles 2 [PM14.05] Angles on a straight line [PM14.11] Angles around a point [PM14.12]
Week 2		Calculate angles Vertically opposite angles Angles in a triangle Angles in a triangle - special cases Angles in a triangle - missing angles	Vertically opposite angles [PM14.15] Angles in triangles [PM14.16]
Week 3		Angles in special quadrilaterals Angles in regular polygons Draw shapes accurately Draw nets of 3-D shapes	Angles in quadrilaterals [PM14.17] Angles in regular polygons [PM14.18] Nets of shapes 2 [PM14.14]
Week 4-13	Consolidation	Consolidation or SATs preparation	5 - Problem solving and reasoning assessment (1) [PM19.05] 5 - Problem solving and reasoning assessment (2) [PM19.06] 6 - Problem solving and reasoning assessment (1) [PM19.07] 6 - Problem solving and reasoning assessment (2) [PM19.08]



## Primary Mathematics – Arithmetic

This document shows the structure of our Primary Mathematics - Arithmetic course.

Topic / Strand	Nugget Name
Diagnostics	Diagnostic: Place Value [PAR0.01]
	Diagnostic: Addition [PAR0.02]
	Diagnostic: Subtraction [PAR0.03]
	Diagnostic: Multiplication [PAR0.04]
	Diagnostic: Division [PAR0.05]
	Diagnostic: Mixed Operations [PAR0.06]
	Diagnostic: Fractions [PAR0.07]
	Diagnostic: Percentages [PAR0.08]
Place Value	Place Value 1 [PAR1.01]
	Place Value 2 [PAR1.02]
Addition and Subtraction	Addition Mental Methods 1 [PAR2.01]
	Addition Mental Methods 2 [PAR2.02]
	Addition Written Methods 1 [PAR2.03]
	Addition Written Methods 2 [PAR2.04]
	Addition Written Methods with Decimals 1 [PAR2.05]
	Addition Written Methods with Decimals 2 [PAR2.06]
	Subtraction Mental Methods 1 [PAR2.07]
	Subtraction Mental Methods 2a [PAR2.08]
	Subtraction Mental Methods 2b [PAR2.09]
	Subtraction Mental Methods 3 [PAR2.10]
	Subtraction Written Methods 1 [PAR2.11]
	Subtraction Written Methods 2 [PAR2.12]
	Subtraction Involving Decimals [PAR2.13]
	Subtraction Written Methods (with Decimals) 1 [PAR2.14]
	Subtraction Written Methods (with Decimals) 2 [PAR2.15]
Multiplication	Multiplying by 1 and 0 [PAR3.01]
	Multiplying by 10, 100 and 1,000 [PAR3.02]
	Multiplying Multiples of 10 and 100 [PAR3.03]
	Multiplying 3 Numbers [PAR3.04]
	Multiplying by Multiples of 10 and 100 with Decimals [PAR3.05]
	Short Multiplication [PAR3.06]
	Long Multiplication 1 [PAR3.07]
	Long Multiplication 2 [PAR3.08]

	Multiplying by Decimals 1 [PAR3.09]
	Multiplying by Decimals 2 [PAR3.10]
Division	Dividing by 1 [PAR4.01]
	Mental Division [PAR4.02]
	Dividing by 10 and 100 with Decimals [PAR4.03]
	The Bus Stop Method [PAR4.04]
	Long Division 1 [PAR4.05]
	Long Division 2 [PAR4.06]
	Long Division 3 [PAR4.07]
	Long Division 4 [PAR4.08]
Mixed Operations	Squared and Cubed Numbers 1 [PAR5.01]
	Squared and Cubed Numbers 2 [PAR5.02]
	BIDMAS 1 [PAR5.03]
	BIDMAS 2 [PAR5.04]
Fractions	Adding and Subtracting Fractions 1 [PAR6.01]
	Adding and Subtracting Fractions 2 [PAR6.02]
	Adding and Subtracting Fractions 3 [PAR6.03]
	Dividing Fractions by a Whole Number [PAR6.04]
	Multiply Fractions by Fractions [PAR6.05]
	Multiply Proper Fractions by a Whole Number [PAR6.06]
	Multiply Mixed Numbers by a Whole Number [PAR6.07]
Percentages	Finding Percentages of Amounts 1 [PAR7.01]
	Finding 1 - 9% of an Amount [PAR7.02]
	Finding Multiples of 10% of an Amount [PAR7.03]
	Percentages of 1,000 [PAR7.04]
	Finding Percentages of Amounts 2 [PAR7.05]
	Finding Percentages of Amounts 3 [PAR7.06]
	Finding Percentages of Amounts 4 [PAR7.07]
	Finding Percentages of Amounts 5 [PAR7.08]
Diagnostics: Practice Papers	Practice Paper 1 [PAR8.01]
	Practice Paper 2 [PAR8.02]
	Practice Paper 3 [PAR8.03]
	Practice Paper 4 [PAR8.04]
	Practice Paper 5 [PAR8.05]
	Practice Paper 6 [PAR8.06]

## Primary Mathematics – Multiplication Tables

This document shows the structure of our Primary Mathematics - Multiplication Tables course.

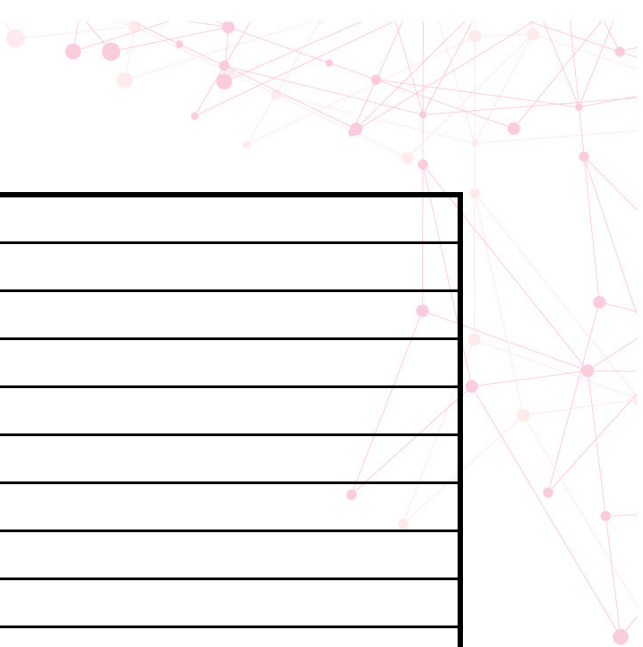
Topic / Strand	Nugget Name
Diagnostic Assessment	Diagnostic: Practice Assessment [PMT0.01]
Multiplication Tables	2 Times Table Practice (1) [PMT1.01]
	2 Times Table Practice (2) [PMT1.02]
	2 Times Table Practice (3) [PMT1.03]
	3 Times Table Practice (1) [PMT1.04]
	3 Times Table Practice (2) [PMT1.05]
	3 Times Table Practice (3) [PMT1.06]
	4 Times Table Practice (1) [PMT1.07]
	4 Times Table Practice (2) [PMT1.08]
	4 Times Table Practice (3) [PMT1.09]
	5 Times Table Practice (1) [PMT1.10]
	5 Times Table Practice (2) [PMT1.11]
	5 Times Table Practice (3) [PMT1.12]
	6 Times Table Practice (1) [PMT1.13]
	6 Times Table Practice (2) [PMT1.14]
	6 Times Table Practice (3) [PMT1.15]
	7 Times Table Practice (1) [PMT1.16]
	7 Times Table Practice (2) [PMT1.17]
	7 Times Table Practice (3) [PMT1.18]
	8 Times Table Practice (1) [PMT1.19]
	8 Times Table Practice (2) [PMT1.20]
	8 Times Table Practice (3) [PMT1.21]
	9 Times Table Practice (1) [PMT1.22]
	9 Times Table Practice (2) [PMT1.23]
	9 Times Table Practice (3) [PMT1.24]
	10 Times Table Practice (1) [PMT1.25]
	10 Times Table Practice (2) [PMT1.26]
	10 Times Table Practice (3) [PMT1.27]
	11 Times Table Practice (1) [PMT1.28]
	11 Times Table Practice (2) [PMT1.29]
	11 Times Table Practice (3) [PMT1.30]
	12 Times Table Practice (1) [PMT1.31]
	12 Times Table Practice (2) [PMT1.32]

	12 Times Table Practice (3) [PMT1.33]
Easy Practice	Easy Practice (1) [PMT2.01]
	Easy Practice (2) [PMT2.02]
	Easy Practice (3) [PMT2.03]
Medium Practice	Medium Practice (1) [PMT3.01]
	Medium Practice (2) [PMT3.02]
	Medium Practice (3) [PMT3.03]
Hard Practice	Hard Practice (1) [PMT4.01]
	Hard Practice (2) [PMT4.02]
	Hard Practice (3) [PMT4.03]
Practice Assessments	Practice Assessment (1) [PMT5.01]
	Practice Assessment (2) [PMT5.02]
	Practice Assessment (3) [PMT5.03]
	Practice Assessment (4) [PMT5.04]
	Practice Assessment (5) [PMT5.05]
	Practice Assessment (6) [PMT5.06]
	Practice Assessment (7) [PMT5.07]
	Practice Assessment (8) [PMT5.08]
	Practice Assessment (9) [PMT5.09]
	Practice Assessment (10) [PMT5.10]

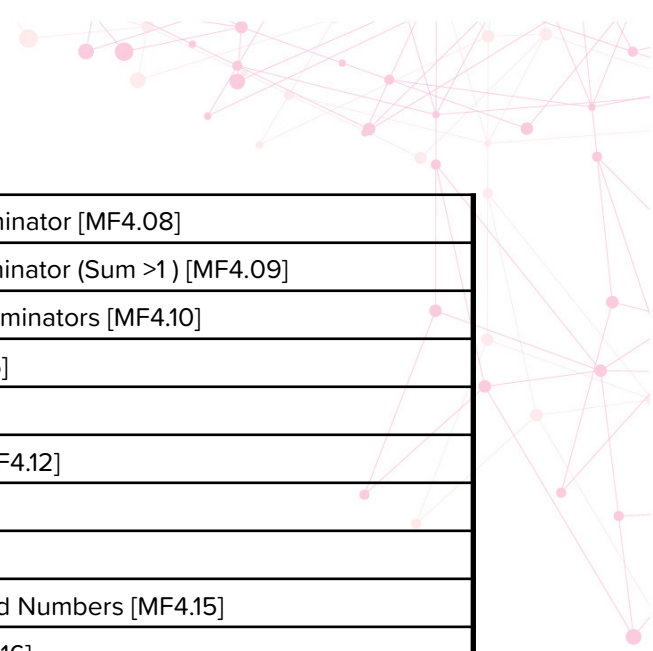
## Nuggets included in Mathematics - IGCSE (Cambridge) - Core and Extended

Nuggets in **bold** are present in the Extended course only

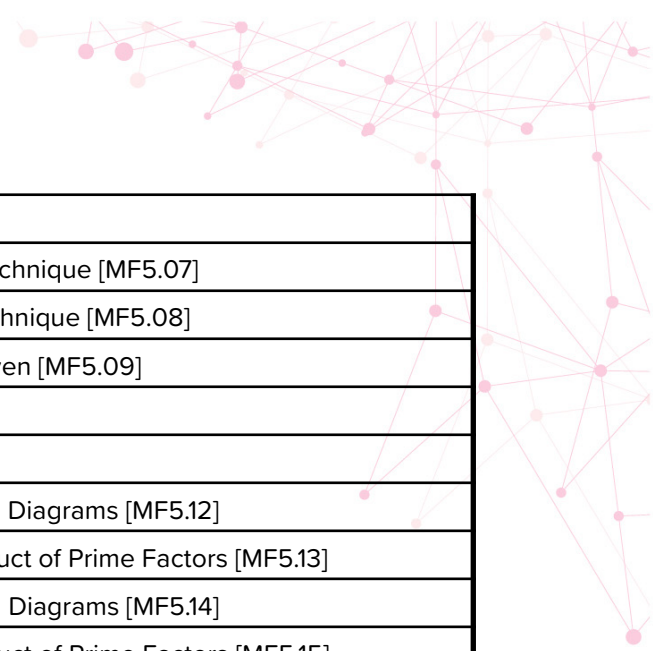
Strand	Nugget Names
Diagnostics	Diagnostic: Number 1 [MF0.01]
	Diagnostic: Algebra 1 [MF0.02]
	Diagnostic: Geometry 1 [MF0.03]
	Diagnostic: Number 2 [MF0.04]
	Diagnostic: Probability 1 [MF0.05]
	Diagnostic: Statistics 1 [MF0.06]
	Diagnostic: Algebra 2 [MF0.07]
	Diagnostic: Geometry 2 [MF0.08]
	<b>Diagnostic: Number 3 [MH0.09]</b>
	<b>Diagnostic: Number 4 [MH0.10]</b>
	<b>Diagnostic: Algebra 3 [MH0.11]</b>
	<b>Diagnostic: Algebra 4 [MH0.12]</b>
	<b>Diagnostic: Algebra 5 [MH0.13]</b>
	<b>Diagnostic: Geometry 3 [MH0.14]</b>
	<b>Diagnostic: Geometry - Circles and Circle Theorems [MH0.15]</b>
	<b>Diagnostic: Statistics 2 [MH0.16]</b>
	<b>Diagnostic: Probability 2 [MH0.17]</b>
	<b>Diagnostic: Geometry - Advanced Trigonometry [MH0.18]</b>
<b>Diagnostic: Calculus [MI0.19]</b>	
<b>Number</b>	
Simple Arithmetic	Addition [MF1.01]
	Subtraction [MF1.02]
	Addition and Subtraction [MF1.03]
	Times Tables: 2, 5 and 10 [MF1.04]
	Times Tables: 3 and 4 [MF1.05]
	Times Tables: 6 and 7 [MF1.06]
	Times Tables: 8 and 9 [MF1.07]
	Times Tables: 11 and 12 [MF1.08]
	Commutative Law [MF1.09]
	Associative Law [MF1.10]
	Division: 1, 2, 3, 4, 5 and 10 [MF1.11]
	Division: 6, 7, 8, 9, 11 and 12 [MF1.12]
	Division: Mixed [MF1.13]
	Distributive Law [MF1.14]



Understanding Number	Integer Place Value [MF2.01]
	Mathematical Symbols [MF2.02]
	Negative Numbers [MH2.03]
	Symmetrical Subtraction [MF2.04]
	Adding Negatives [MF2.05]
	Subtracting Negatives [MF2.06]
	Negatives and Positives [MH2.07]
	Ordering Integers [MF2.08]
	Ordering Decimals [MF2.09]
	Ordering Negatives [MF2.10]
	Multiplying by Powers of Ten [MF2.11]
	Dividing by Powers of Ten [MF2.12]
	Rounding to the nearest 10, 100 and 1000 [MF2.13]
Four Operations	Column Addition [MF3.01]
	Column Subtraction [MF3.02]
	Addition and Subtraction: Worded Questions [MF3.03]
	Multiplying Negatives [MF3.04]
	Dividing Negatives [MF3.05]
	Multiplying and Dividing with Negatives [MF3.06]
	Column Multiplication [MF3.07]
	Grid Multiplication [MF3.08]
	Multiplication with Napier's Bones [MF3.09]
	Testing for Divisibility [MF3.10]
	Short Division [MF3.11]
	Dividing by Multi-Digit Numbers [MF3.12]
	Multiplication and Division: Worded Questions [MF3.13]
	BIDMAS Introduction [MF3.14]
	BIDMAS Intermediate [MF3.15]
	BIDMAS Advanced [MF3.16]
	Using a Calculator 1: Powers and Roots of a Single Number [MF3.17]
	Using a Calculator 2: Multiple Numbers [MF3.18]
	Long Division [MF3.19]
Working with Fractions	Expressing Fractions [MF4.01]
	Ordering Fractions [MF4.02]
	Equivalent Fractions [MF4.03]
	Simplifying Fractions [MF4.04]
	Shading Fractions [MF4.05]
	Mixed and Improper Fractions [MF4.06]
	Adding Fractions 1: Same Denominator [MF4.07]

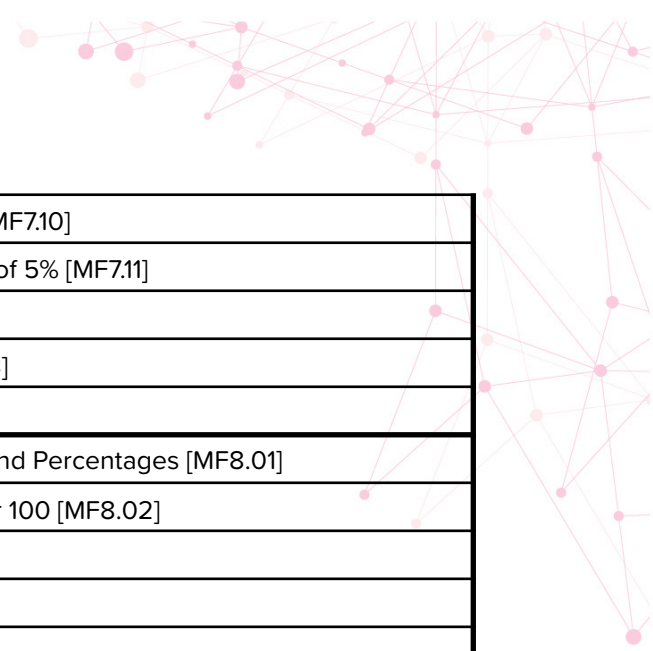


Working with Fractions (cont.)	Adding Fractions 2: Convert 1 Denominator [MF4.08]
	Adding Fractions 3: Convert 1 Denominator (Sum >1) [MF4.09]
	Adding Fractions 4: Convert all Denominators [MF4.10]
	Fractions: Subtracting from 1 [MF4.36]
	Subtracting Fractions [MF4.11]
	Adding and Subtracting Fractions [MF4.12]
	Adding Improper Fractions [MF4.13]
	Adding Mixed Numbers [MF4.14]
	Adding Improper Fractions and Mixed Numbers [MF4.15]
	Subtracting Improper Fractions [MF4.16]
	Subtracting Mixed Numbers [MF4.17]
	Subtracting Improper Fractions and Mixed Numbers [MF4.18]
	Adding and Subtracting Improper Fractions [MF4.19]
	Adding and Subtracting Mixed Numbers [MF4.20]
	Adding and Subtracting Improper Fractions and Mixed Numbers [MF4.21]
	Fractions on a Number Line 1: Between 0 and 1 [MF4.37]
	Fractions on a Number Line 2: Beyond 1 [MF4.38]
	Reciprocals [MF4.22]
	Multiplying Fractions 1 [MF4.23]
	Multiplying Fractions 2 [MF4.24]
	Dividing Fractions [MF4.25]
	Multiplying and Dividing Mixed Numbers [MF4.26]
	Multiplying with Whole Numbers and Fractions [MF4.27]
	Dividing with Whole Numbers and Fractions [MF4.28]
	Fraction of Amounts: Modelling [MF4.39]
	Fraction of Amounts: Non-Calculator [MF4.29]
	Fraction of Amounts: Calculator [MF4.30]
	Increasing and Decreasing by Fractions [MF4.31]
	Fraction of Amounts: Modelling Finding the Whole [MF4.40]
	Reverse Fractions [MF4.32]
	Reverse Fractions: Worded Questions [MF4.33]
	Estimating Products of Fractions [MF4.34]
	Dividing Fractions (Bar Model) [MF4.35]
	<b>Applied Fractions [MH4.34]</b>
Factors, Multiples and Primes	Odds and Evens with Addition and Subtraction [MF5.01]
	Odds and Evens with Multiplication [MF5.02]
	Primes [MF5.03]
	Multiples [MF5.04]
	Factors [MF5.05]

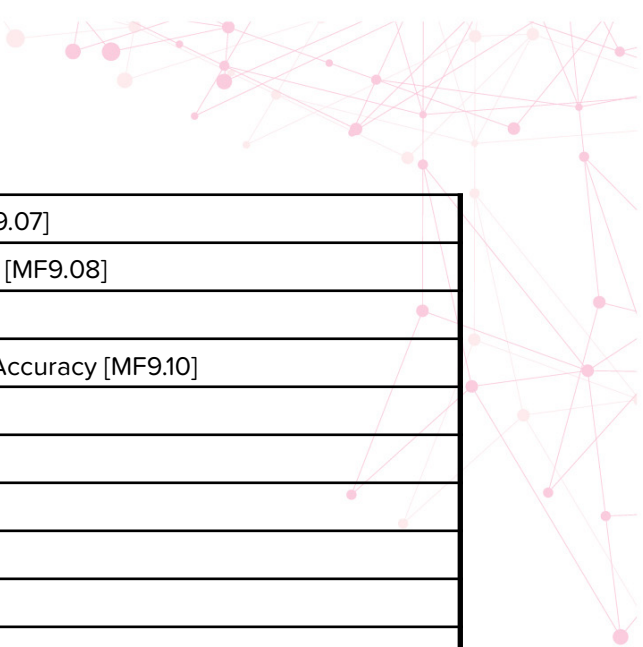


Factors, Multiples and Primes (cont.)	Multiples and Factors [MF5.06]
	Lowest Common Multiple - Listing Technique [MF5.07]
	Highest Common Factor - Listing Technique [MF5.08]
	Prime Factorisation 1: Factor Tree Given [MF5.09]
	Prime Factorisation 2 [MF5.10]
	Uses of Prime Factorisation [MF5.11]
	HCF Using Prime Factorisation: Venn Diagrams [MF5.12]
	HCF Using Prime Factorisation: Product of Prime Factors [MF5.13]
	LCM Using Prime Factorisation: Venn Diagrams [MF5.14]
	LCM Using Prime Factorisation: Product of Prime Factors [MF5.15]
	HCF and LCM with Prime Factorisation [MF5.16]
	<b>HCF and LCM of 3 Numbers [MH5.17]</b>
	<b>Solving Problems with HCF and LCM 1 [MH5.18]</b>
	<b>Solving Problems with HCF and LCM 2 [MH5.19]</b>
	<b>Solving Problems with HCF and LCM 3: Reverse [MH5.20]</b>
Working with Decimals	Decimal Place Value [MF6.01]
	Adding Decimals 1: Calculations [MF6.02]
	Adding Decimals 2: Worded Problems [MF6.03]
	Subtracting Decimals 1: Calculations [MF6.04]
	Subtracting Decimals 2: Worded Problems [MF6.05]
	Multiplying Decimals 1 [MF6.06]
	Multiplying Decimals 2 [MF6.07]
	Multiplying Decimals: Worded Questions [MF6.08]
	Dividing Decimals [MF6.09]
	Dividing Decimals by Decimals [MF6.10]
	Dividing by Large Numbers [MF6.11]
	Manipulating Decimal Calculations with Multiplication [MF6.12]
	Manipulating Decimal Calculations with Division [MF6.13]
	Multiplying Decimals with Napier's Bones [MF6.14]
Introduction to Percentages (NC)	Understanding Percentages [MF7.01]
	Finding 50% [MF7.02]
	Finding 25% [MF7.03]
	Finding 10% [MF7.04]
	Finding 5% [MF7.05]
	Finding 1% [MF7.06]
	Finding Multiples of Tens in Percentages [MF7.07]
	Percentages of Amounts: Modelling [MF7.15]
	Finding Percentages of Amounts 1 [MF7.08]
	Finding Percentages of Amounts 2 [MF7.09]



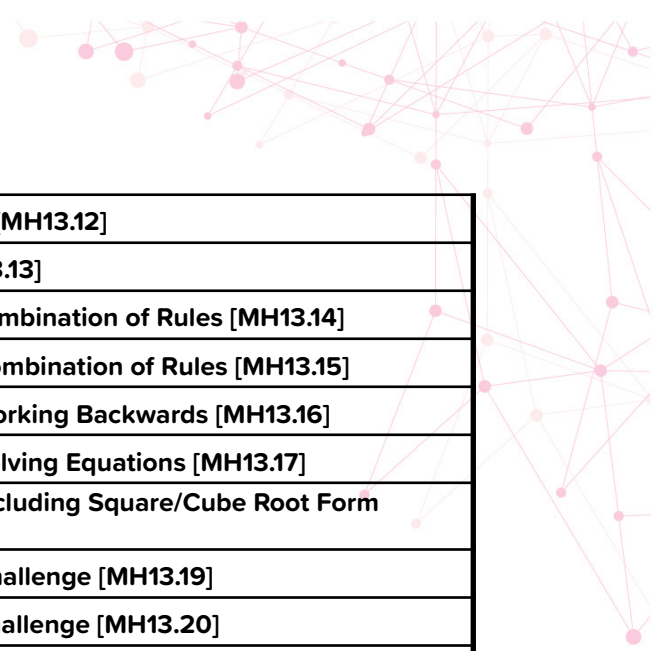


Introduction to Percentages (NC) (cont.)	Finding Percentages of Amounts 3 [MF7.10]
	Comparing Percentages 1: Multiples of 5% [MF7.11]
	Comparing Percentages 2 [MF7.12]
	Finding Decimal Percentages [MF7.13]
	Estimate with Percentages [MF7.14]
Fractions, Decimals and Percentages	Introduction to Fractions, Decimals and Percentages [MF8.01]
	Converting Fractions to Denominator 100 [MF8.02]
	Fractions to Percentage [MF8.03]
	Decimals to Percentage [MF8.04]
	Percentage to Decimals [MF8.05]
	Fractions to Decimals 1: Equivalent Fractions [MF8.06]
	Fractions to Decimals 2: Division [MF8.07]
	Percentage to Fractions [MF8.08]
	Decimals to Fractions [MF8.09]
	Fractions to Decimals (Calculator) [MF8.10]
	Fractions to Percentages (Calculator) [MF8.11]
	Percentage to Fractions (Calculator) [MF8.12]
	Decimals to Fractions (Calculator) [MF8.13]
	Ordering Fractions, Decimals and Percentages 1: Unit Fractions (Non-Calculator) [MF8.14]
	Ordering Fractions, Decimals and Percentages 2: Non-Unit Fractions (Non-Calculator) [MF8.15]
	Ordering Fractions, Decimals and Percentages 3: Numbers Less than 1 (Calculator) [MF8.16]
	Ordering Fractions, Decimals and Percentages 4: Numbers More than 1 (Calculator) [MF8.17]
	Converting Percentage (Less than 1%) [MF8.18]
	Converting Percentage (Greater than 100%) [MF8.19]
<b>Recurring Decimals</b>	<b>Fractions to Recurring Decimals 1: Special Cases [MH51.01]</b>
	<b>Fractions to Recurring Decimals 2: Long Division [MH51.02]</b>
	<b>Fractions to Recurring Decimals 3: Long Division (Numbers &gt; 1) [MH51.03]</b>
	<b>Recurring Decimals 1: 1–2 Digits [MH51.04]</b>
	<b>Recurring Decimals 2: 2–4 Digits [MH51.05]</b>
	<b>Recurring Decimals 3: Non-Recurring and Recurring Digits [MH51.06]</b>
	<b>Recurring Decimals 4: Special Cases [MH51.07]</b>
	<b>Recurring Decimals 5: Calculations [MH51.08]</b>
Rounding	Rounding to the Nearest Whole Number [MF9.01]
	Rounding to 1 Decimal Place [MF9.02]
	Rounding to 2 Decimal Places [MF9.03]
	Rounding to Mixed Decimal Places [MF9.04]
	Rounding to 1 Significant Figure [MF9.05]
	Rounding to 2 Significant Figures [MF9.06]

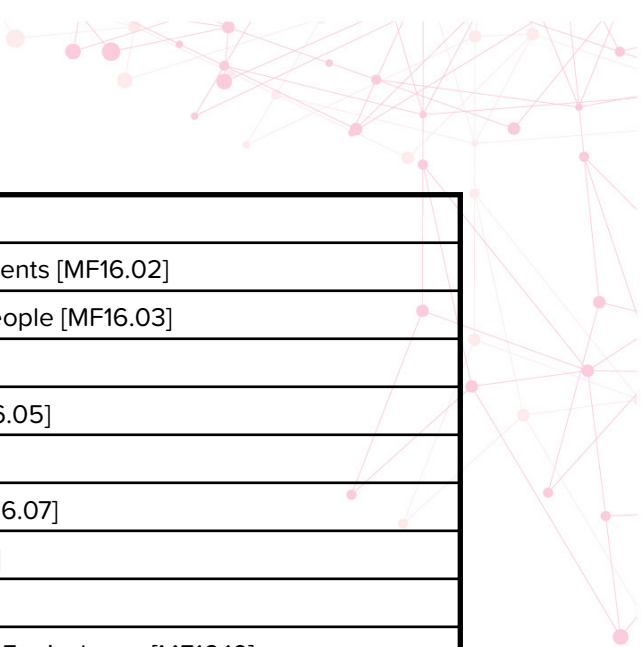


Rounding (cont.)	Rounding to 3 Significant Figures [MF9.07]
	Rounding to Mixed Significant Figures [MF9.08]
	Mixed Rounding [MF9.09]
	Rounding to Appropriate Degrees of Accuracy [MF9.10]
	Introduction to Estimation [MF9.11]
	Estimation [MF9.12]
	Bounds 1: Introduction [MF9.13]
	Bounds 2: Simple Calculation [MF9.14]
	Bounds 3: Intervals [MF9.15]
	<b>Bounds 4: Addition [MH9.16]</b>
	<b>Bounds 5: Subtraction [MH9.17]</b>
	<b>Bounds 6: Multiplication [MH9.18]</b>
	<b>Bounds 7: Division [MH9.19]</b>
	<b>Bounds 8: Mixed Operations [MH9.20]</b>
	<b>Bounds 9: Formulae [MH9.21]</b>
	<b>Bounds 10: Suitable Degrees of Accuracy [MH9.22]</b>
<b>Bounds 11: Discrete Variables [MH9.23]</b>	
<b>Truncation [MH9.24]</b>	
Percentages Non-Calculator	Percentage Increase and Decrease: Modelling [MF10.06]
	Percentage Increase [MF10.01]
	Percentage Decrease [MF10.02]
	Percentage Increase and Decrease [MF10.03]
	Finding Percentages greater than 100 [MF10.04]
	Simple Interest [MF10.05]
Percentages Calculator	Finding Percentages 1: Integer Percentages < 100% (Calculator) [MF11.01]
	Finding Percentages 2: > 100% or Non-Integer Percentages (Calculator) [MF11.02]
	Percentage Increase and Decrease (Calculator) [MF11.03]
	Percentage Change [MF11.04]
	Repeated Percentage Increase and Decrease (Calculator) [MF11.05]
	Simple Interest (Calculator) [MF11.06]
	Compound Interest (Calculator) [MF11.07]
	Depreciation (Calculator) [MF11.08]
	Compound Interest and Depreciation (Calculator) [MF11.09]
	Simple and Compound Interest (Calculator) [MF11.10]
	Reverse Percentages Introduction: Modelling [MF11.18]
	Reverse Percentages: Modelling [MF11.19]
	Reverse Percentage [MF11.11]
	Percentage Error [MF11.12]
Express One Amount as a Percentage of Another [MF11.13]	

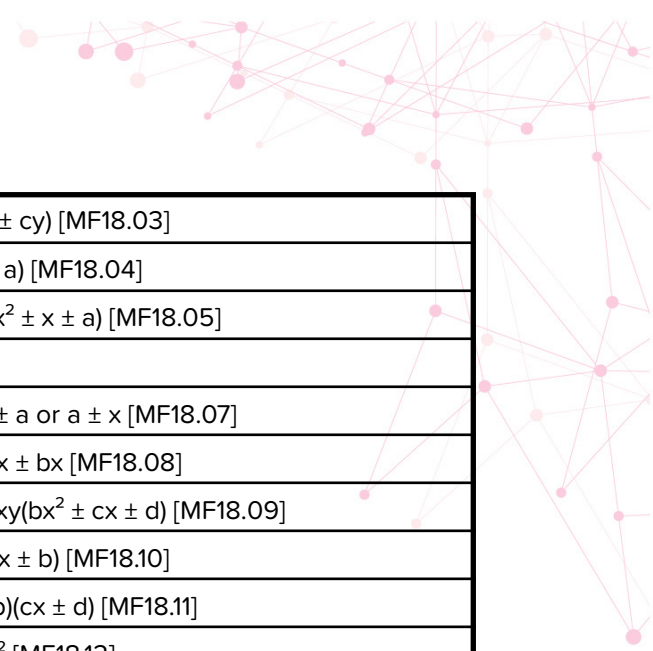
Percentages Calculator (cont.)	Percentage Problems [MF11.14]
	<b>Exponential Growth [MH11.14]</b>
	<b>Exponential Decay [MH11.15]</b>
	<b>Exponential Growth and Decay [MH11.16]</b>
	Earnings, Profit and Loss [MI11.17]
Powers and Roots	Squares [MF12.01]
	Cubes [MF12.02]
	Squaring and Cubing Negatives [MF12.03]
	Powers [MF12.04]
	Roots of Squares and Cubes [MF12.05]
	Roots [MF12.06]
	<b>Estimating Powers and Roots [MH12.07]</b>
<b>Surds</b>	<b>Surds: Introduction [MH52.01]</b>
	<b>Surds: Multiplication and Division [MH52.02]</b>
	<b>Surds: Simplifying 1 [MH52.03]</b>
	<b>Surds: Simplifying 2 (Products of Surds) [MH52.04]</b>
	<b>Surds: Simplifying 3 (Dividing Surds) [MH52.05]</b>
	<b>Surds: Simplifying 4 (Sum and Difference) [MH52.06]</b>
	<b>Surds: Expanding 1 (Single Bracket) [MH52.07]</b>
	<b>Surds: Expanding 2 (Sum/Difference of Single Brackets) [MH52.08]</b>
	<b>Surds: Expanding 3 (Double Brackets) [MH52.09]</b>
	<b>Surds: Expanding 4 (Double Brackets, Surds with Coefficients) [MH52.10]</b>
	<b>Surds: Expanding 5 (Difference of Two Squares) [MH52.11]</b>
	<b>Surds: Rationalising 1 (Monomial Denominator) [MH52.12]</b>
	<b>Surds: Rationalising 2 (Binomial Denominator) [MH52.13]</b>
	<b>Surds: Rationalising 3 (Sum/Difference with Binomial Denominators) [MH52.14]</b>
	<b>Surds: Rationalising 4 (Sum/Difference with Binomial Denominators) [MH52.15]</b>
	<b>Surds: Rationalising 5 (Surd within Fraction within Denominator) [MH52.16]</b>
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	Raising a Fraction to a Power [MF13.02]
	Multiplying Indices [MF13.03]
	Dividing Indices [MF13.04]
	Power of a Power [MF13.05]
	Negative Indices [MF13.06]
	Combination of Indices [MF13.07]
	<b>Fractional Indices 1: Square and Cube Root [MH13.08]</b>
	<b>Fractional Indices 2: Non-Unit Fraction [MH13.09]</b>
	<b>Fractional Indices 3: Negative Unit Fractions [MH13.10]</b>
	<b>Fractional Indices 4: Negative Non-Unit Fractions [MH13.11]</b>



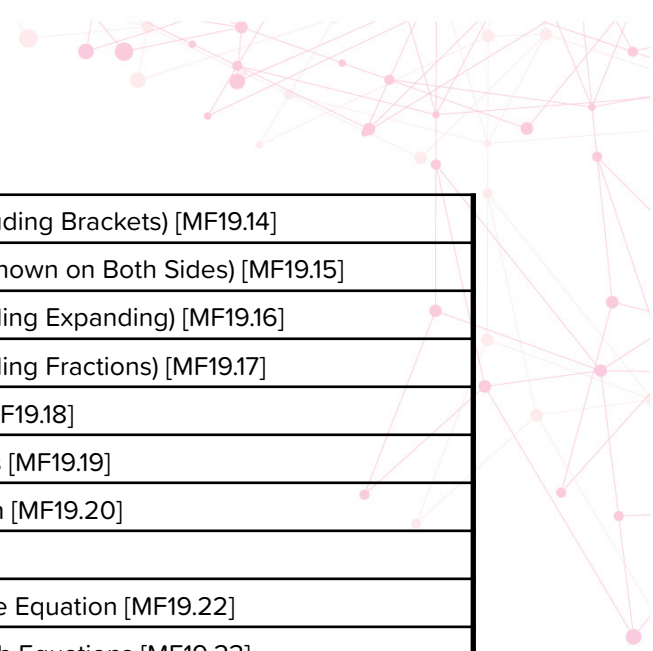
Indices (cont.)	<b>Fractional Indices 5: Fraction Base [MH13.12]</b>
	<b>Fractional Indices: Calculator [MH13.13]</b>
	<b>Solving Problems with Indices 1: Combination of Rules [MH13.14]</b>
	<b>Solving Problems with Indices 2: Combination of Rules [MH13.15]</b>
	<b>Solving Problems with Indices 3: Working Backwards [MH13.16]</b>
	<b>Solving Problems with Indices 4: Solving Equations [MH13.17]</b>
	<b>Solving Problems with Indices 5: Including Square/Cube Root Form [MH13.18]</b>
	<b>Solving Problems with Indices 6: Challenge [MH13.19]</b>
	<b>Solving Problems with Indices 7: Challenge [MH13.20]</b>
	<b>Exponential Equations 1: Introduction [MH13.21]</b>
	<b>Exponential Equations 2: Quadratics (Changing One Base) [MH13.22]</b>
	<b>Exponential Equations 3: Quadratics (Changing Multiple Bases) [MH13.23]</b>
	<b>Exponential Equations 4: Challenge [MH13.24]</b>
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The Negative Powers of 10 [MF14.02]	
Standard Form to Ordinary [MF14.03]	
Ordinary to Standard Form [MF14.04]	
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Ratio	Introduction to Ratio [MF15.01]
	Simplifying Ratios [MF15.02]
	Converting Ratios into the Form 1:n [MF15.03]
	Converting Ratios into the form n:1 [MF15.04]
	3 Part Ratios [MF15.05]
	Simplifying Ratios with Units [MF15.06]
	Sharing with a Given Ratio: Modelling [MF15.15]
	Ratio Fluency: Modelling [MF15.16]
	<b>Sharing with a Given Ratio 1 [MH15.07]</b>
	Sharing with a Given Ratio 2 (Calculator) [MF15.08]
	Sharing with a Given Ratio 3 (Calculator): Working Backwards [MF15.09]
	Sharing with a Given Ratio 4 (Calculator): 3 Part Ratios [MF15.10]
	Converting Ratios into Fractions [MF15.11]
	Converting Fractions into Ratios [MF15.12]
	Part of a Ratio to the Whole [MF15.13]
Ratio and Algebra [MF15.14]	



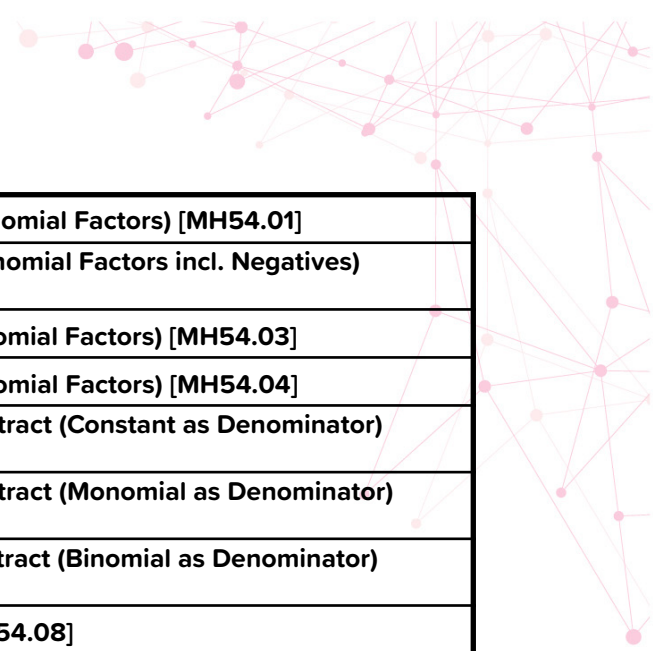
Ratio and Proportion	Introduction to Proportion [MF16.01]
	Recipe Ratio 1: Find Amount of Ingredients [MF16.02]
	Recipe Ratio 2: Find the Number of People [MF16.03]
	Better Value [MF16.04]
	Direct Proportion 1: Conversions [MF16.05]
	Direct Proportion 2: $y = kx$ [MF16.06]
	Inverse Proportion 1: Introduction [MF16.07]
	Inverse Proportion 2: $y = k/x$ [MF16.08]
	Proportions on a Graph [MF16.09]
	Ratio and Rate Problems 1: Testing for Equivalence [MF16.10]
	<b>Direct Proportion 3: <math>y = kx^a</math> and <math>y = k\sqrt{x}</math> [MH16.10]</b>
	<b>Inverse Proportion 3: <math>y = k/x^a</math> and <math>y = k/\sqrt{x}</math> [MH16.11]</b>
	<b>Interpreting Direct and Inverse Proportion 1: <math>y = kx</math> and <math>y = k/x^a</math> [MH16.12]</b>
	<b>Interpreting Direct and Inverse Proportion 2: Problem Solving [MH16.13]</b>
	<b>Proportions on a Graph 2: Linear, Quadratic, Cubic and Root [MH16.14]</b>
<b>Two Step Direct and Inverse Proportion [MH16.15]</b>	
<b>Algebra</b>	
Introduction to Algebra	Forming Algebraic Expressions: One Step [MF17.01]
	Forming Algebraic Expressions: Two Step [MF17.02]
	Algebraic Terminology [MF17.03]
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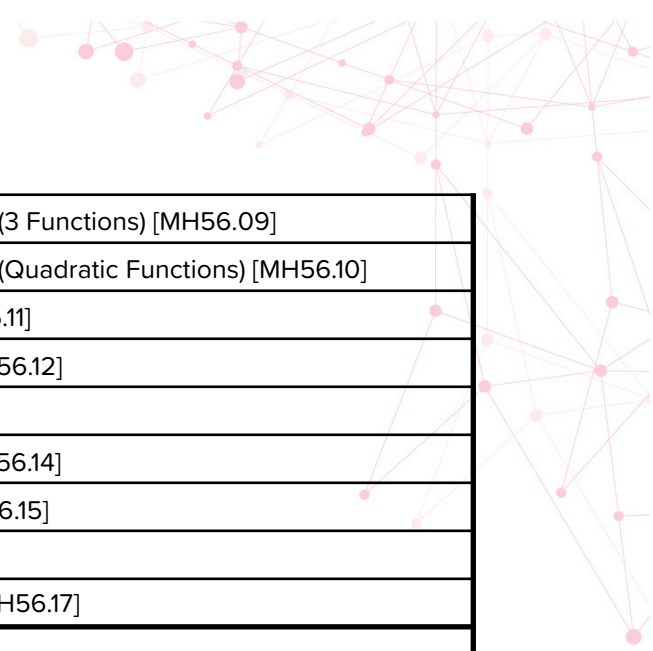


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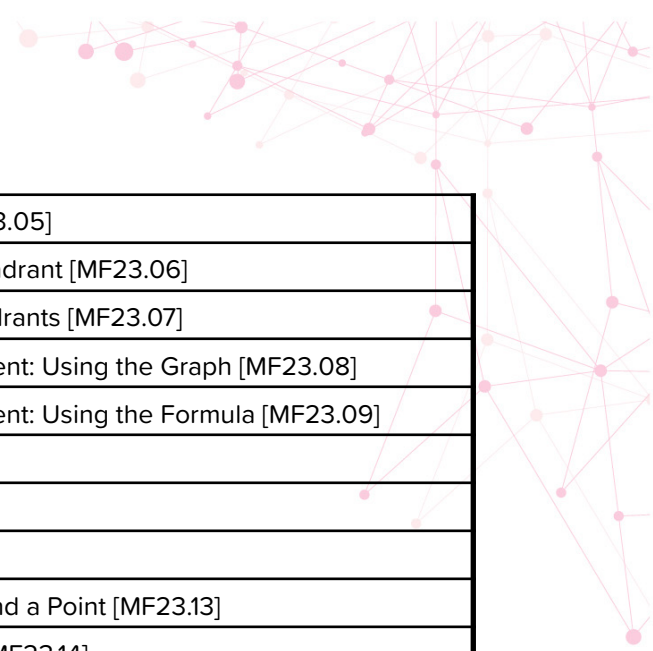


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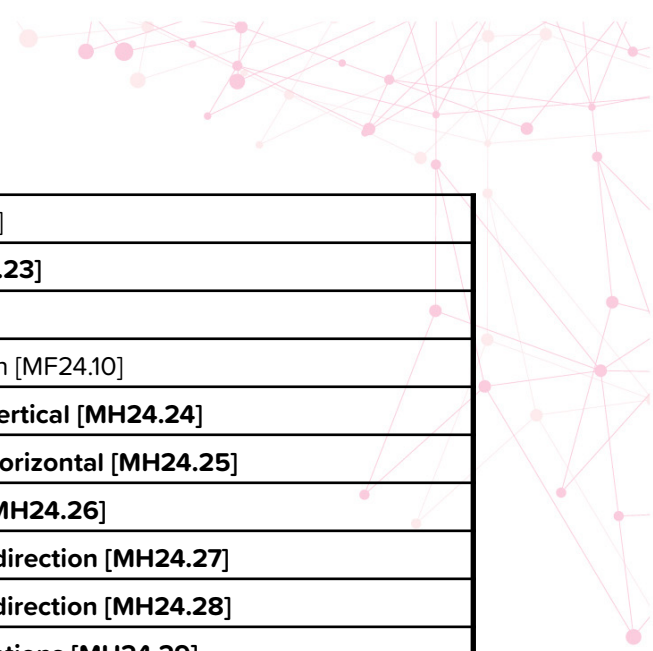




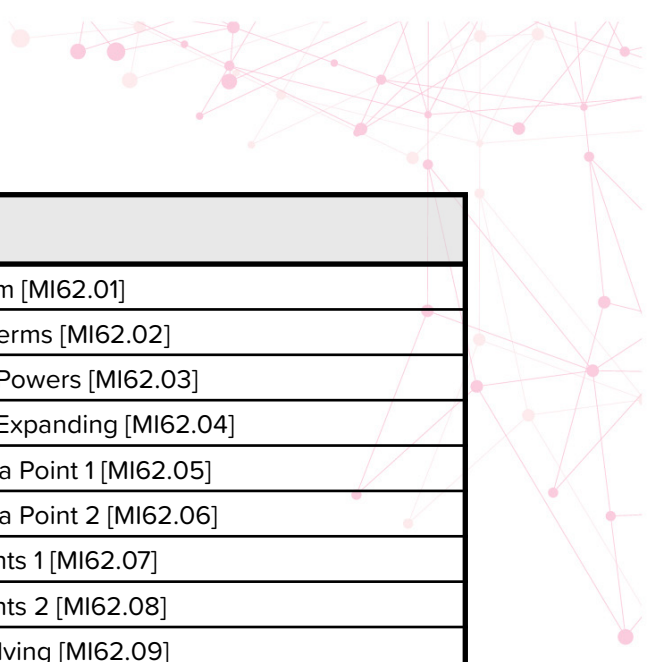
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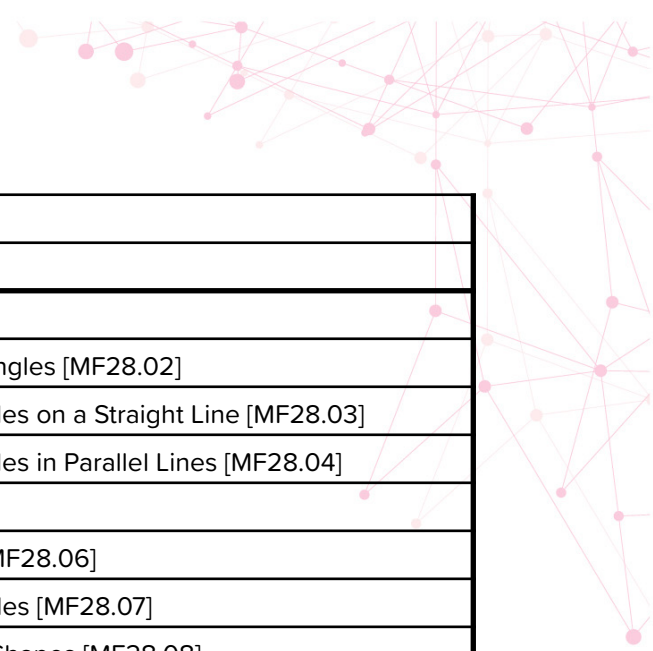
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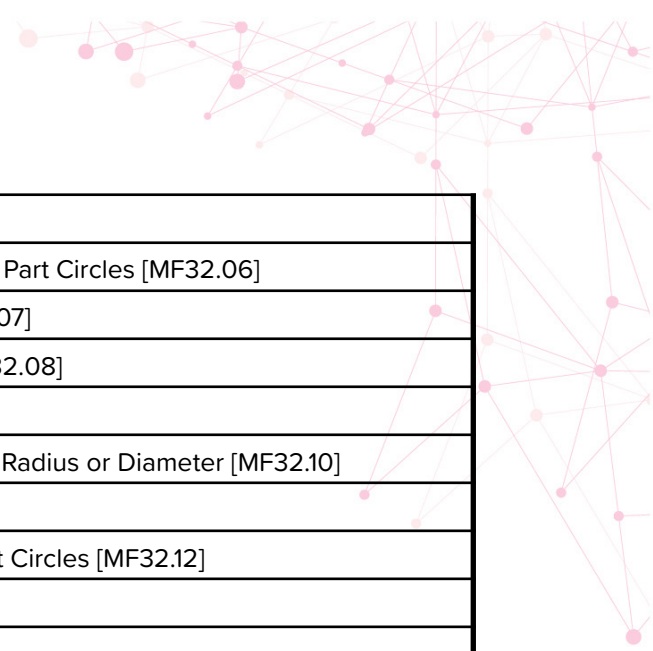
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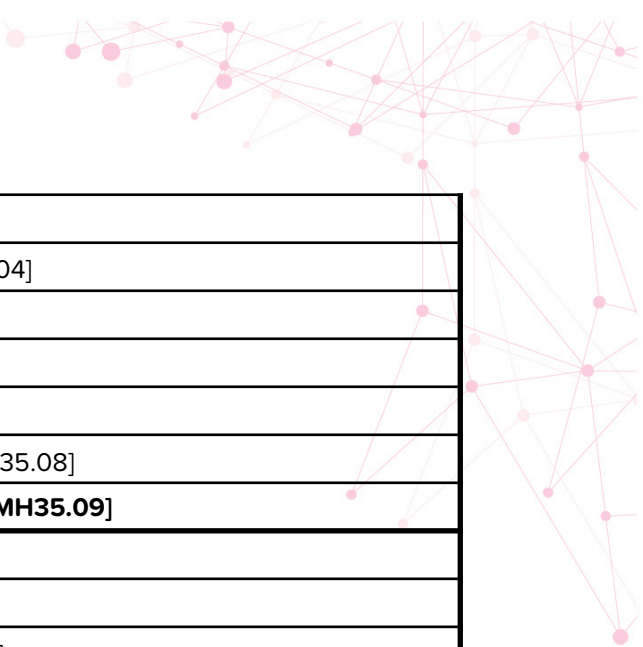
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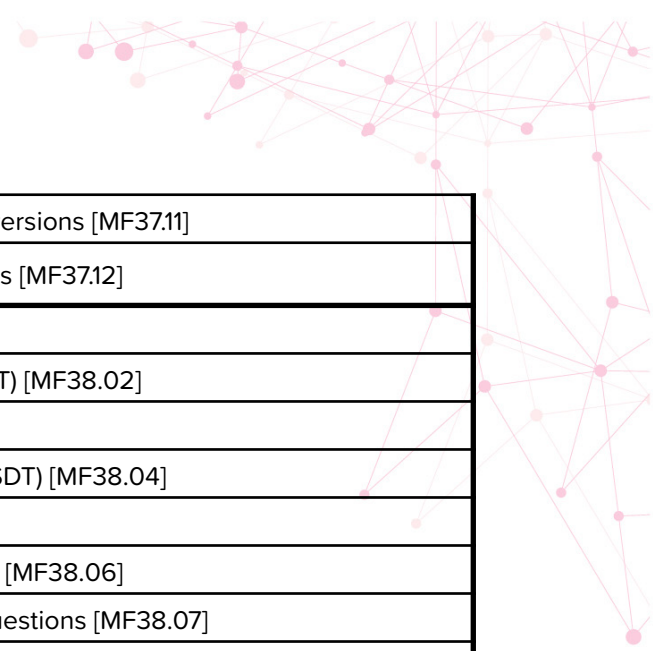
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	<b>Area and Perimeter of Composite Shapes with Sectors 2: Problem Solving [MH32.19]</b>
3D Shapes	Planes of Symmetry [MF33.01]
	Nets of Cubes [MF33.02]
	Plans and Elevations with Cuboids [MF33.03]
	Plans and Elevations [MF33.04]
Volume	Counting Cubes [MF34.01]
	Volume of Cubes and Cuboids [MF34.02]
	Volume of Cubes and Cuboids with Missing Side(s) [MF34.03]
	Volume of Prisms 1: Given Area [MF34.04]
	Volume of Prisms 2: Triangular Prisms [MF34.05]
	Volume of Prisms 3: Mixed Exercise [MF34.06]
	Volume of Cylinders [MF34.07]
	Volume of Cylinders with a Missing Value [MF34.08]
	Volume of Part Cylinders [MF34.09]
	Volume of a Sphere [MF34.10]
	Volume of a Sphere with the Radius Missing [MF34.11]
	Volume of a Cone [MF34.12]
	Volume of a Cone with the Radius Missing [MF34.13]
	Volume of a Hemisphere [MF34.14]
	Volume of Pyramids [MF34.15]
	Volume of Composite Solids [MF34.16]
<b>Problem Solving with Volume [MH34.17]</b>	
<b>Volume of Frustums [MH34.18]</b>	
Surface Area	Surface Area of Cuboids [MF35.01]
	Surface Area of Prisms [MF35.02]

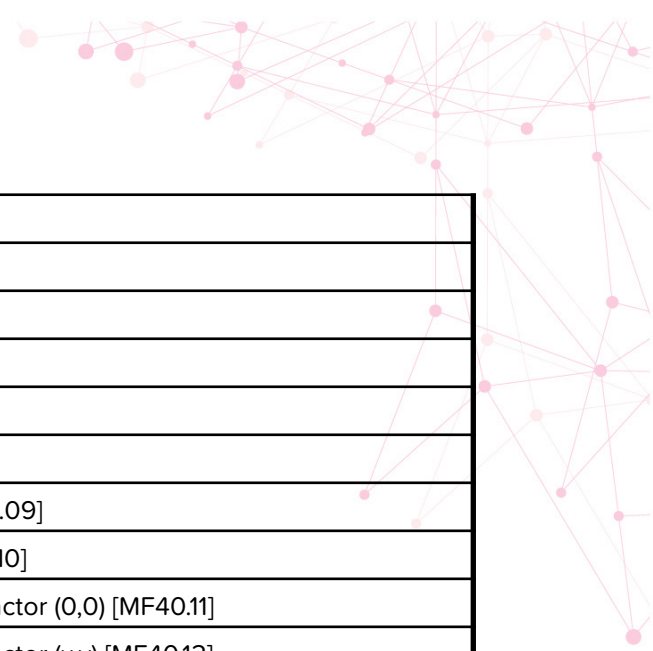


Surface Area (cont.)	Surface Area of Cylinders [MF35.03]
	Surface Area of Part Cylinders [MF35.04]
	Surface Area of Spheres [MF35.05]
	Surface Area of Cones [MF35.06]
	Surface Area of Pyramids [MF35.07]
	Surface Area of Composite Solids [MF35.08]
	<b>Problem Solving with Surface Area [MH35.09]</b>
Measure	Reading Scales [MF36.01]
	Metric Units [MF36.02]
	Estimating with Metric Units [MF36.03]
	Converting Metric Length (One-Step) [MF36.04]
	Converting Metric Length (Multi-Step) [MF36.05]
	Converting Metric Length: Worded Questions [MF36.06]
	Converting Metric Mass (One-Step) [MF36.07]
	Converting Metric Mass (Multi-Step) [MF36.08]
	Converting Metric Mass: Worded Questions [MF36.09]
	Converting Metric Capacity [MF36.10]
	Converting Metric Volume 1 [MF36.11]
	Converting Metric Volume 2 [MF36.12]
	Converting Area 2: Unit Conversions [MF36.13]
	Converting Area 1: Area Model [MF36.14]
	Converting Volume [MF36.15]
	Metric and Imperial Length (No Calculator) [MF36.16]
	Metric and Imperial Length (Calculator) [MF36.17]
	Metric and Imperial Mass and Volume (No Calculator) [MF36.18]
	Metric and Imperial Mass and Volume (Calculator) [MF36.19]
	Conversion Graphs: Drawing [MF36.20]
Conversion Graphs: Interpreting [MF36.21]	
Conversion Graphs: Units of Measure [MF36.22]	
Time and Money	Reading a 12-Hour Clock 1: O'Clock and Half Past [MF37.01]
	Reading a 12-Hour Clock 2: Multiples of 5 [MF37.02]
	Reading a 12-Hour Clock 3: Mixed [MF37.03]
	Converting Time: AM and PM [MF37.04]
	Converting Time: Seconds, Minutes and Hours [MF37.05]
	Converting Time: Days, Weeks and Years [MF37.06]
	Calendar Months [MF37.07]
	Converting Time: Mixed Units [MF37.08]
	Problems with Time [MF37.09]
	Converting Currency 1 [MF37.10]

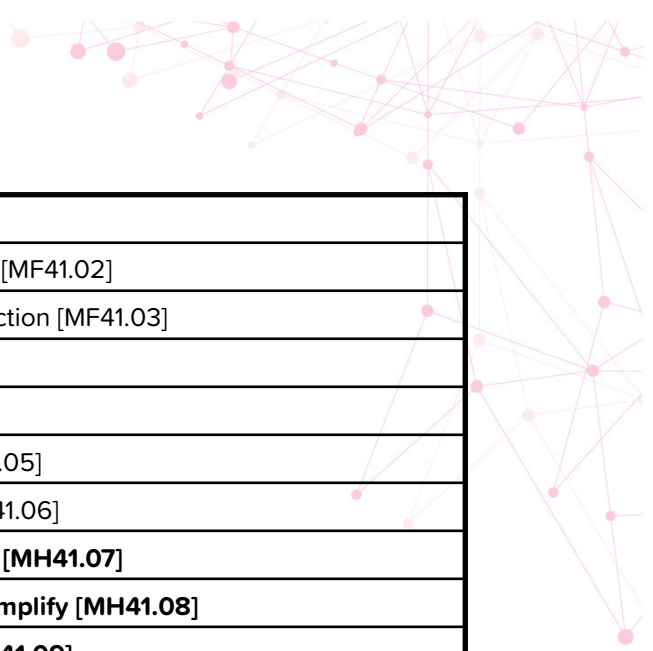


Time and Money (cont.)	Converting Currency 2: Double Conversions [MF37.11]
	Converting Currency: Mixed Problems [MF37.12]
Compound Measure	Finding Speed (SDT) [MF38.01]
	Finding Speed with Conversions (SDT) [MF38.02]
	Finding Distance (SDT) [MF38.03]
	Finding Distance with Conversions (SDT) [MF38.04]
	Finding Time (SDT) [MF38.05]
	Finding Time with Conversions (SDT) [MF38.06]
	Speed, Distance and Time: Mixed Questions [MF38.07]
	Converting Units with Speed, Distance and Time [MF38.08]
	Understanding and converting units (DMV) [MF38.09]
	Finding Density (DMV) [MF38.10]
	Finding Density with Conversions (DMV) [MF38.11]
	Finding Mass (DMV) [MF38.12]
	Finding Mass with Conversions (DMV) [MF38.13]
	Finding Volume (DMV) [MF38.14]
	Finding Volume with Conversions (DMV) [MF38.15]
	Density, Mass and Volume: Mixed Questions [MF38.16]
	Converting Units with Density, Mass and Volume [MF38.17]
	Force, Pressure and Area [MF38.18]
	Distance-Time Graphs: Drawing [MF38.19]
	Distance-Time Graphs: Interpreting [MF38.20]
	Distance-Time Graphs: Speed [MF38.21]
	<b>Velocity-Time Graph: Interpreting [MH38.22]</b>
	<b>Velocity-Time Graph: Distance [MH38.23]</b>
	<b>Velocity-Time Graph: Acceleration [MH38.24]</b>
	<b>Velocity-Time Graph: Problem Solving [MH38.25]</b>
Scale Drawings and Bearings	Using Scales with Units [MF39.01]
	Finding Scales with Units [MF39.02]
	Using Scales without Units [MF39.03]
	Finding Scales without Units [MF39.04]
	Using Scales on a Map [MF39.05]
	Creating Scale Diagrams [MF39.10]
	Introduction to Bearings [MF39.06]
	Bearings from North [MF39.07]
	Finding Bearings 1 [MF39.08]
	Finding Bearings 2: Using Co-interior Angles [MF39.09]
Transformations	Introduction to Reflection [MF40.01]
	Finding the Line of Reflection [MF40.02]

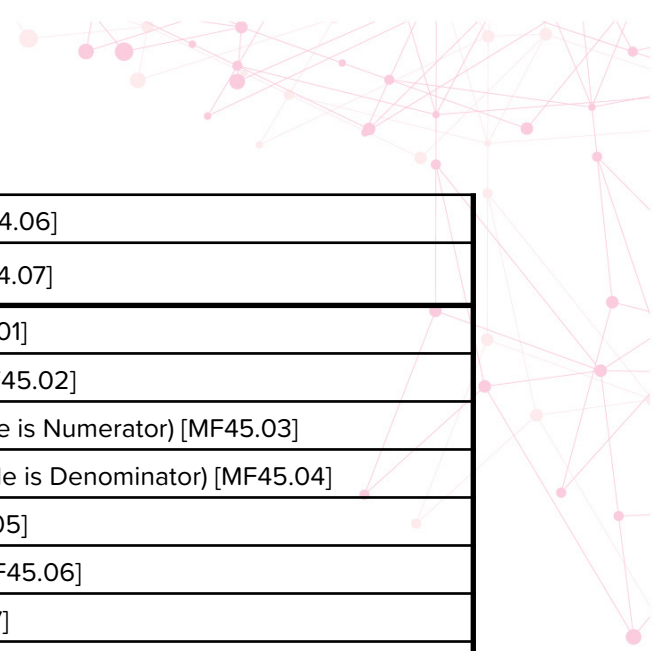




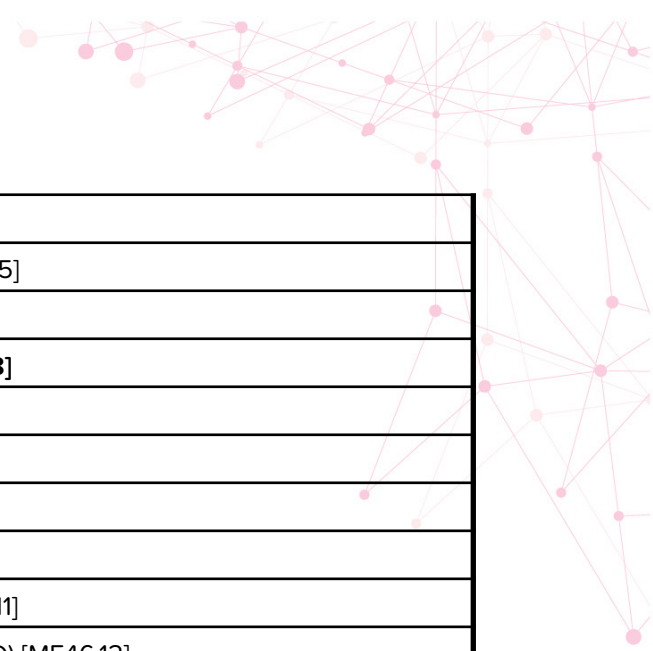
Transformations (cont.)	Coordinates in Reflection [MF40.03]	
	Translating a Point [MF40.04]	
	Translating a Shape [MF40.05]	
	Describing Translations [MF40.06]	
	Enlarging Shapes [MF40.07]	
	Enlargements with $0 < SF < 1$ [MF40.08]	
	Enlargement with Centre (0,0) [MF40.09]	
	Enlargement with Centre (x,y) [MF40.10]	
	Enlargement with Fractional Scale Factor (0,0) [MF40.11]	
	Enlargement with Fractional Scale Factor (x,y) [MF40.12]	
	<b>Enlargement with Negative Scale Factor [MH40.20]</b>	
	<b>Enlargement with Negative Fractional Scale Factor [MH40.21]</b>	
	<b>Enlargement with Mixed Scale Factor [MH40.22]</b>	
	Describing Enlargements with an Integer Scale Factor [MF40.13]	
	Describing Enlargements with a Non-Integer Scale Factor [MF40.14]	
	<b>Describing Enlargements with Mixed Scale Factor [MH40.23]</b>	
	Rotation with Centre (0,0) [MF40.15]	
	Rotation with Centre (x,y) [MF40.16]	
	Describing Rotation [MF40.17]	
	Describing Transformations [MF40.18]	
	Combination of Transformations 1 [MF40.19]	
	<b>Combination of Transformations 2 [MH40.24]</b>	
	Circle Theorems	<b>Angle in a Semicircle and Angle at Tangent [MH57.01]</b>
		<b>Properties of Diameter and Radii [MH57.02]</b>
<b>Tangents from an External Point [MH57.03]</b>		
<b>Angles at the Centre [MH57.04]</b>		
<b>Angles on the Same Arc [MH57.05]</b>		
<b>Angles at the Centre and on the Same Arc [MH57.06]</b>		
<b>Cyclic Quadrilaterals [MH57.07]</b>		
<b>Alternate Segment Theorem [MH57.08]</b>		
<b>Intersecting Chord Theorem [MI57.13]</b>		
<b>Intersecting Secant Theorem [MI57.14]</b>		
<b>Mixed Circle Theorems 1: Practice [MH57.09]</b>		
<b>Mixed Circle Theorems 2: Algebra [MH57.10]</b>		
<b>Mixed Circle Theorems 3: Two Theorems [MH57.11]</b>		
<b>Mixed Circle Theorems 4: Challenge [MH57.12]</b>		
<b>Mixed Circle Theorems 5: Including Chord and Secant Theorems [MI57.15]</b>		
<b>Mixed Circle Theorems 6: Challenge incl. Chord and Secant Theorems [MI57.16]</b>		



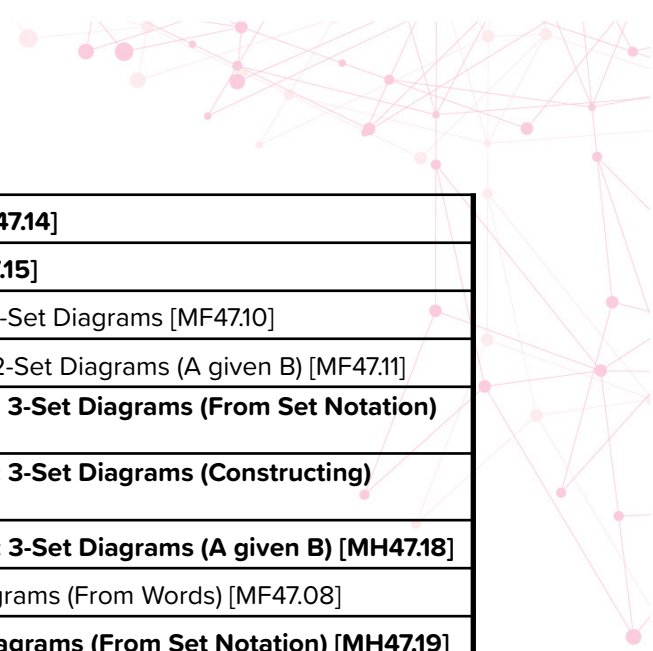
Vectors	Column Vectors [MF41.01]
	Column Vectors: Scalar Multiplication [MF41.02]
	Column Vectors: Addition and Subtraction [MF41.03]
	Column Vectors: Drawing [MF41.04]
	Magnitude of Vectors [MI41.14]
	Geometric Vectors 1: One Term [MF41.05]
	Geometric Vectors 2: Two Terms [MF41.06]
	<b>Geometric Vectors 3: Within Shapes [MH41.07]</b>
	<b>Geometric Vectors 4: Expand and Simplify [MH41.08]</b>
	<b>Geometric Vectors 5: Midpoints [MH41.09]</b>
	<b>Geometric Vectors 6: Ratios [MH41.10]</b>
	<b>Geometric Vectors 7: Fractions and Ratios [MH41.11]</b>
	<b>Geometric Vectors 8: Parallel Vectors [MH41.12]</b>
	<b>Geometric Vectors 9: Proof [MH41.13]</b>
Construction and Loci	Constructing Circles [MF42.01]
	Constructing an Equilateral Triangle [MF42.02]
	Constructing Triangles [MI42.10]
	Perpendicular Bisector [MF42.03]
	Angle Bisector [MF42.04]
	Perpendicular from a Point to a Line [MF42.05]
	Constructing Angles (30, 45, 60, 90) [MF42.06]
	Understanding Loci [MF42.07]
	Loci 1: Single Constructions [MF42.08]
	Loci 2: Multi-Step Problems [MF42.09]
Similarity	Introduction to Similarity [MF43.01]
	Similar Polygons: Finding the Scale Factor [MF43.02]
	Similar Polygons: Missing Sides given Scale Factor [MF43.03]
	Similar Polygons: Missing Sides [MF43.04]
	Similar Triangles 1: Same Orientation [MF43.05]
	Similar Triangles 2: Different Orientations [MF43.06]
	<b>Similar Area 1 [MH43.07]</b>
	<b>Similar Area 2: Including Ratio [MH43.08]</b>
	<b>Similar Volume [MH43.09]</b>
	<b>Similar Area and Volume [MH43.10]</b>
Pythagoras	Pythagoras' Theorem [MF44.01]
	Pythagoras: Finding the Hypotenuse [MF44.02]
	Pythagoras: Finding a Short Side [MF44.03]
	Pythagoras: Mixed Sides [MF44.04]
	Pythagoras: Using Coordinates [MF44.05]



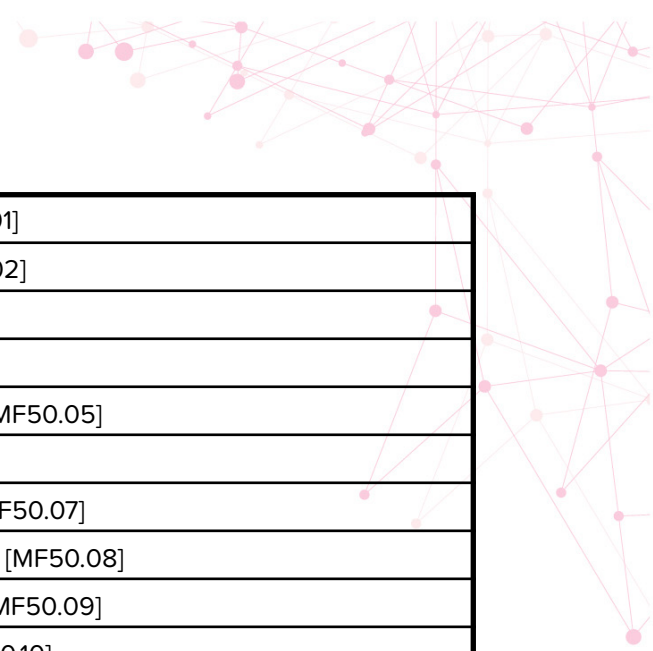
Pythagoras (cont.)	Pythagoras: Worded Questions [MF44.06]
	Pythagoras: Applied Questions [MF44.07]
Right-Angled Trigonometry	Introduction to SOHCAHTOA [MF45.01]
	Trigonometry: Using a Calculator [MF45.02]
	Trigonometry: Missing Side 1 (Variable is Numerator) [MF45.03]
	Trigonometry: Missing Side 2 (Variable is Denominator) [MF45.04]
	Trigonometry: Missing Angle [MF45.05]
	Trigonometry: Worded Questions [MF45.06]
	Exact Trigonometric Values [MF45.07]
	Trigonometry and Pythagoras [MF45.08]
	Shortest Distance [MI45.09]
	Simple Trigonometric Equations [MI45.10]
<b>Advanced Trigonometry</b>	<b>Area using <math>\frac{1}{2}(ab)\sin(C)</math>: Proof [MH58.01]</b>
	<b><math>\frac{1}{2}(ab)\sin(C)</math>: Finding the area [MH58.02]</b>
	<b><math>\frac{1}{2}(ab)\sin(C)</math>: Area with Missing Value [MH58.03]</b>
	<b><math>\frac{1}{2}(ab)\sin(C)</math>: Applied [MH58.04]</b>
	<b>Sine Rule: Proof [MH58.05]</b>
	<b>Sine Rule: Sides [MH58.06]</b>
	<b>Sine Rule: Angles [MH58.07]</b>
	<b>Sine Rule: Applied [MH58.08]</b>
	<b>Cosine Rule: Proof [MH58.09]</b>
	<b>Cosine Rule: Finding a [MH58.10]</b>
	<b>Cosine Rule: Finding A [MH58.11]</b>
	<b>Cosine Rule: Applied [MH58.12]</b>
	<b>Choosing the Correct Trigonometric Rule [MH58.13]</b>
	<b>Mixed Trigonometry 1 [MH58.14]</b>
	<b>Mixed Trigonometry 2: Multi-Step Problems [MH58.15]</b>
	<b>Mixed Trigonometry 3: Multi-Step Problems [MH58.16]</b>
	<b>Mixed Trigonometry 4: Non-Calculator [MH58.17]</b>
	<b>Mixed Trigonometry 5: Bearings [MH58.18]</b>
<b>3D Trigonometry</b>	<b>3D Pythagoras 1: Cuboids [MH59.01]</b>
	<b>3D Pythagoras 2: Pyramids and Cylinders [MH59.02]</b>
	<b>3D SOH CAH TOA [MH59.03]</b>
	<b>3D Trigonometry [MH59.04]</b>
	<b>3D Trigonometry: Problem Solving [MH59.05]</b>
<b>Probability</b>	
Probability	Probability Scale in Words [MF46.01]
	Probability Scale in Numbers [MF46.02]
	Calculating Probability [MF46.03]



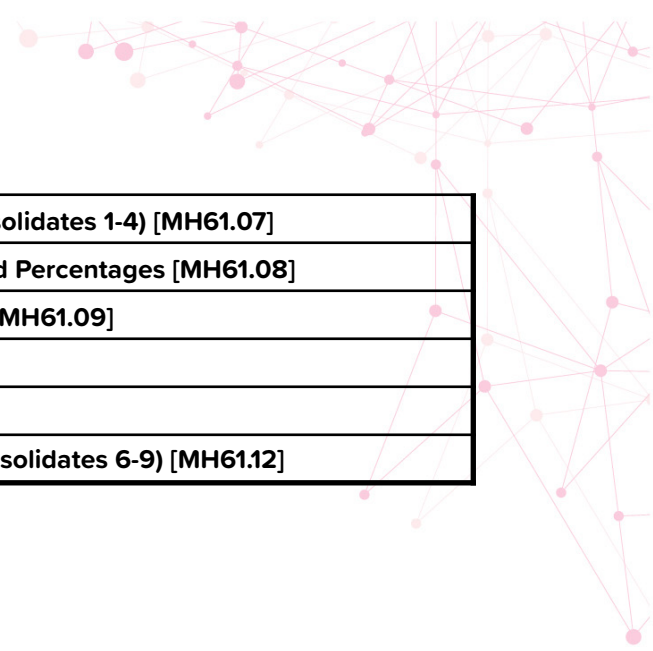
Probability (cont.)	Mutually Exclusive Events [MF46.04]
	Two Way Tables: Probability [MF46.05]
	Listing Outcomes [MF46.06]
	<b>Product Rule for Counting [MH46.18]</b>
	Sample Spaces [MF46.07]
	Relative Frequency [MF46.08]
	Expected Frequency [MF46.09]
	Frequency Trees [MF46.10]
	Interpreting Frequency Trees [MF46.11]
	Multiplication Law of Probability (AND) [MF46.12]
	Addition Law of Probability (OR) [MF46.13]
	<b>Addition Law of Probability (General OR) [MH46.19]</b>
	Tree Diagrams 1: Completing Diagrams [MF46.14]
	Tree Diagrams 2: Calculating Probability of Single Outcome [MF46.15]
	Tree Diagrams 3: Calculating Probability of Multiple Outcomes [MF46.16]
	Tree Diagrams 4: AND/OR Statements (2 Branch Trees) [MF46.17]
	<b>Tree Diagrams 5: AND/OR Statements (3 Branch Trees) [MH46.20]</b>
	<b>Tree Diagrams 6: AND/OR Statements (No Tree Given) [MH46.21]</b>
	<b>Tree Diagrams 7: NOT Statements [MH46.22]</b>
	<b>Tree Diagrams 8: Reverse [MH46.23]</b>
<b>Tree Diagrams 9: Conditional Probability (Single Outcome) [MH46.24]</b>	
<b>Tree Diagrams 10: Conditional Probability (Multiple Outcomes) [MH46.25]</b>	
<b>Tree Diagrams 11: Conditional Probability (Problem Solving) [MH46.26]</b>	
<b>Tree Diagrams 12: Algebraic Expressions [MH46.27]</b>	
<b>Tree Diagrams 13: Solving Equations [MH46.28]</b>	
Sets and Venn Diagrams	Set Notation [MF47.01]
	Rational and Irrational Numbers [MI47.21]
	Elements in a Set 1: Identifying Elements [MF47.02]
	Elements in a Set 2: Unions and Intersections [MF47.03]
	Elements in a Set 3: Complements [MF47.04]
	Subsets: Introduction [MI47.25]
	Subsets: Proper Subsets [MI47.23]
	Subsets: Problem Solving [MI47.24]
	Introduction to Venn Diagrams [MF47.05]
	Constructing Venn Diagrams 1: Listing Elements [MF47.06]
	Constructing Venn Diagrams 2: Writing Values [MF47.07]
	<b>Constructing Venn Diagrams 3: 3-Set Diagrams [MH47.12]</b>
	Interpreting Venn Diagrams 1: 2-Set Diagrams [MF47.09]
	<b>Interpreting Venn Diagrams 2: 3-Set Diagrams (From Set Notation) [MH47.13]</b>



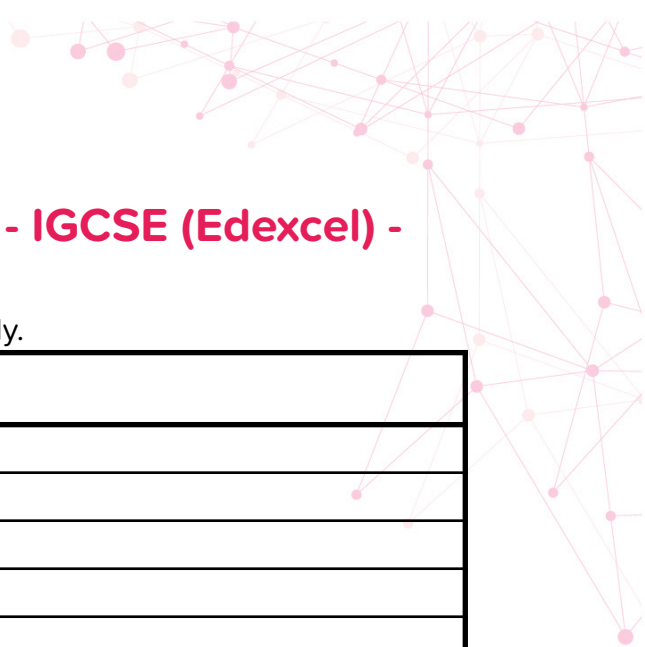
Sets and Venn Diagrams (cont.)	<b>Venn Diagrams: Complements [MH47.14]</b>
	<b>Venn Diagrams with Algebra [MH47.15]</b>
	Probabilities with Venn Diagrams 1: 2-Set Diagrams [MF47.10]
	Probabilities with Venn Diagrams 2: 2-Set Diagrams (A given B) [MF47.11]
	<b>Probabilities with Venn Diagrams 3: 3-Set Diagrams (From Set Notation) [MH47.16]</b>
	<b>Probabilities with Venn Diagrams 4: 3-Set Diagrams (Constructing) [MH47.17]</b>
	<b>Probabilities with Venn Diagrams 5: 3-Set Diagrams (A given B) [MH47.18]</b>
	Shading Venn Diagrams 1: 2-Set Diagrams (From Words) [MF47.08]
	<b>Shading Venn Diagrams 2: 2-Set Diagrams (From Set Notation) [MH47.19]</b>
	<b>Shading Venn Diagrams 3: 3-Set Diagrams (From Set Notation) [MH47.20]</b>
<b>Statistics</b>	
Collecting Data	Hypotheses, Primary Data and Secondary Data [MF48.01]
	Discrete and Continuous Data [MF48.02]
	Tally Chart [MF48.03]
	Questionnaires [MF48.04]
	Types of Random Sampling [MF48.05]
	Fair Samples [MF48.06]
	Grouped Tally Charts: Discrete and Continuous [MF48.07]
Analysing Data	Mode [MF49.01]
	Median [MF49.02]
	Mean 1: Positive Integers [MF49.03]
	Mean 2: Decimals and Negatives [MF49.04]
	Mean 3: Finding Missing Values [MF49.05]
	Mean 4: Changing Means [MF49.06]
	Range 1: Positive Integers [MF49.07]
	Range 2: Decimals and Negatives [MF49.08]
	Applying Averages and the Range 1: Raw Data [MF49.09]
	Mode from Frequency Table [MF49.10]
	Median from Frequency Table [MF49.11]
	Mean from Frequency Table [MF49.12]
	Range from Frequency Table [MF49.13]
	Modal Class from Grouped Frequency Table [MF49.14]
	Median from Grouped Frequency Table [MF49.15]
	Mean from Grouped Frequency Table 1: Discrete and Continuous Data [MF49.16]
	Mean from Grouped Frequency Table 2: Continuous Data [MF49.17]
	Range from Grouped Frequency Table [MF49.18]
	Applying Averages and the Range 2: Tables [MF49.19]
	Using Averages and Range [MF49.20]
Using Averages and Range: Comparing Two Data Sets [MF49.21]	



Displaying Data	Completing Two Way Tables [MF50.01]
	Interpreting Two Way Tables [MF50.02]
	Pictograms [MF50.03]
	Bar Charts [MF50.04]
	Multiple and Composite Bar Charts [MF50.05]
	Vertical Line Graphs [MF50.06]
	Creating Stem and Leaf Diagrams [MF50.07]
	Interpreting Stem and Leaf Diagrams [MF50.08]
	Creating Pie Charts (No Calculator) [MF50.09]
	Creating Pie Charts (Calculator) [MF50.10]
	Interpreting Pie Charts [MF50.11]
	Time Series Graphs [MF50.12]
	Drawing Scatter Graphs [MF50.13]
	Interpreting Scatter Graphs 1: Introduction [MF50.14]
	Interpreting Scatter Graphs 2: Outliers [MF50.15]
	Frequency Polygons: Drawing [MF50.16]
	Frequency Polygons: Interpreting [MF50.17]
	Interpreting Misleading Data Representations [MF50.18]
Cumulative Frequency and Box Plots	<b>Cumulative Frequency 1: Calculating [MH60.01]</b>
	<b>Cumulative Frequency 2: Drawing [MH60.02]</b>
	<b>Cumulative Frequency 3: Calculating Frequency [MH60.03]</b>
	<b>Cumulative Frequency 4: Finding Values [MH60.04]</b>
	<b>Cumulative Frequency 5: Median [MH60.05]</b>
	<b>Cumulative Frequency 6: Quartiles [MH60.06]</b>
	<b>Cumulative Frequency 7: Interquartile Range [MH60.07]</b>
	<b>Cumulative Frequency 8: Plot and Evaluate [MH60.08]</b>
	<b>Cumulative Frequency 9: Percentiles [MI60.15]</b>
	<b>Box Plots 1: Interpret [MH60.09]</b>
	<b>Box Plots 2: Finding Values to Plot [MH60.10]</b>
	<b>Box Plots 3: Draw from List [MH60.11]</b>
	<b>Box Plots 4: Draw from Data [MH60.12]</b>
	<b>Box Plots 5: Evaluate and Compare [MH60.13]</b>
<b>Cumulative Frequency and Box Plots [MH60.14]</b>	
Histograms	<b>Frequency Density 1: Calculating [MH61.01]</b>
	<b>Frequency Density 2: Problem Solving [MH61.02]</b>
	<b>Histograms 1: Choosing Axes [MH61.03]</b>
	<b>Histograms 2: Plotting [MH61.04]</b>
	<b>Histograms 3: Calculating Frequency [MH61.05]</b>
	<b>Histograms 4: Calculating Frequency within a Given Range [MH61.06]</b>



<b>Histograms (cont.)</b>	<b>Histograms 5: Mixed Exercise (Consolidates 1-4) [MH61.07]</b>
	<b>Histograms 6: Finding Fractions and Percentages [MH61.08]</b>
	<b>Histograms 7: Finding Proportions [MH61.09]</b>
	<b>Histograms 8: Median [MH61.10]</b>
	<b>Histograms 9: Mean [MH61.11]</b>
	<b>Histograms 10: Mixed Exercise (Consolidates 6-9) [MH61.12]</b>

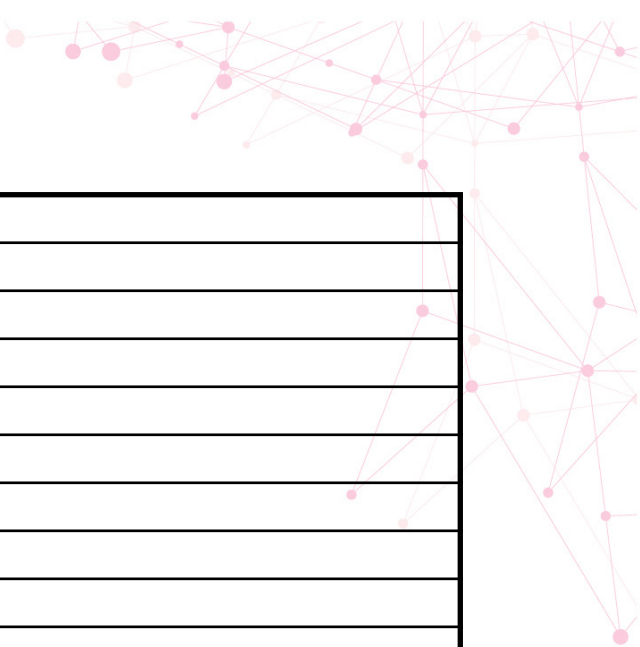


## Nuggets included in Mathematics - IGCSE (Edexcel) - Foundation and Higher

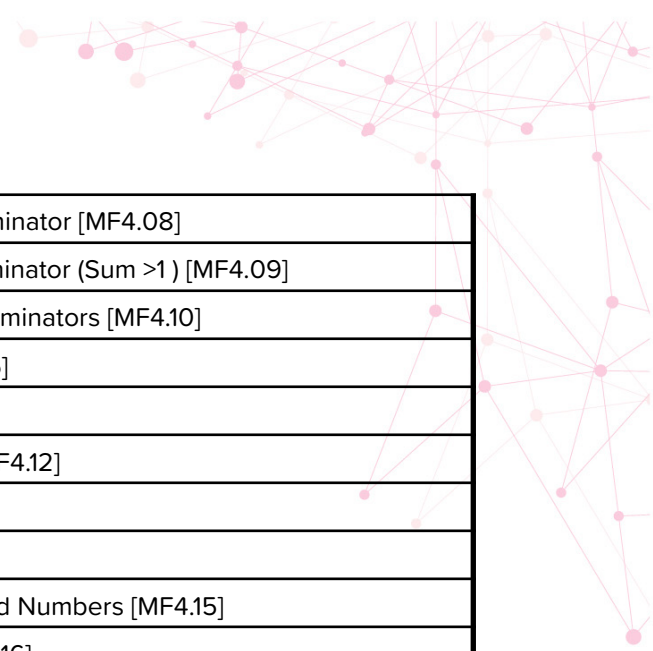
Nuggets in **bold** are present in the Higher course only.

Strand	Nugget Names
Diagnostics	Diagnostic: Number 1 [MF0.01]
	Diagnostic: Algebra 1 [MF0.02]
	Diagnostic: Geometry 1 [MF0.03]
	Diagnostic: Number 2 [MIO.20]
	Diagnostic: Probability 1 [MF0.05]
	Diagnostic: Statistics 1 [MIO.21]
	Diagnostic: Algebra 2 [MF0.07]
	Diagnostic: Geometry 2 [MF0.08]
	<b>Diagnostic: Number 3 [MIO.22]</b>
	<b>Diagnostic: Number 4 [MIO.23]</b>
	<b>Diagnostic: Algebra 3 [MIO.24]</b>
	<b>Diagnostic: Algebra 4 [MIO.25]</b>
	<b>Diagnostic: Algebra 5 [MIO.26]</b>
	<b>Diagnostic: Geometry 3 [MIO.27]</b>
	<b>Diagnostic: Geometry - Circles and Circle Theorems [MH0.15]</b>
	<b>Diagnostic: Statistics 2 [MIO.28]</b>
<b>Diagnostic: Probability 2 [MIO.29]</b>	
<b>Diagnostic: Geometry - Advanced Trigonometry [MH0.18]</b>	
<b>Diagnostic: Calculus [MIO.19]</b>	
<b>Number</b>	
Simple Arithmetic	Addition [MF1.01]
	Subtraction [MF1.02]
	Addition and Subtraction [MF1.03]
	Times Tables: 2, 5 and 10 [MF1.04]
	Times Tables: 3 and 4 [MF1.05]
	Times Tables: 6 and 7 [MF1.06]
	Times Tables: 8 and 9 [MF1.07]
	Times Tables: 11 and 12 [MF1.08]
	Commutative Law [MF1.09]
	Associative Law [MF1.10]
	Division: 1, 2, 3, 4, 5 and 10 [MF1.11]
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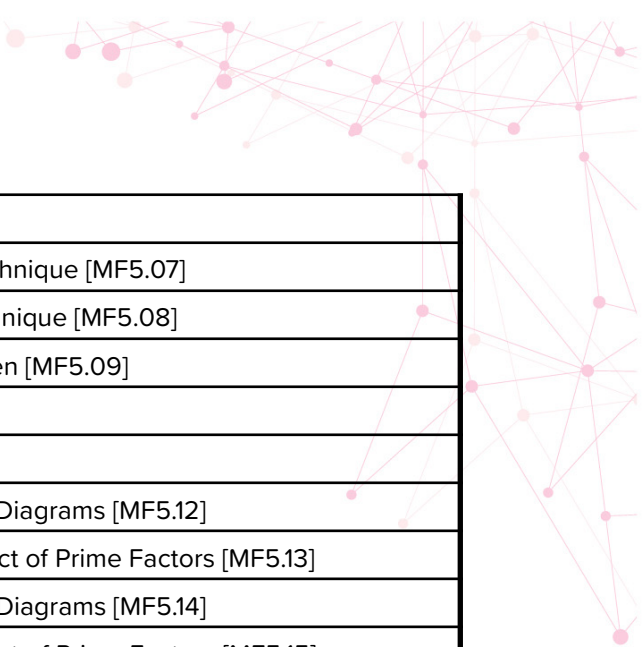




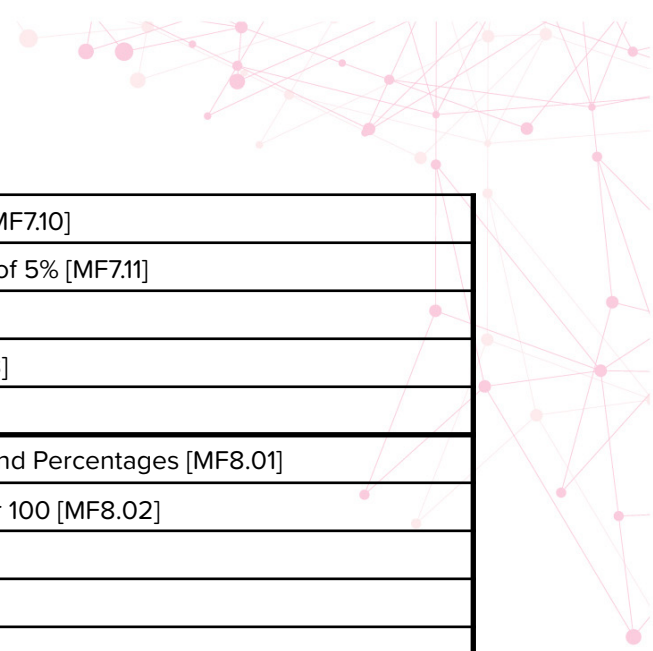
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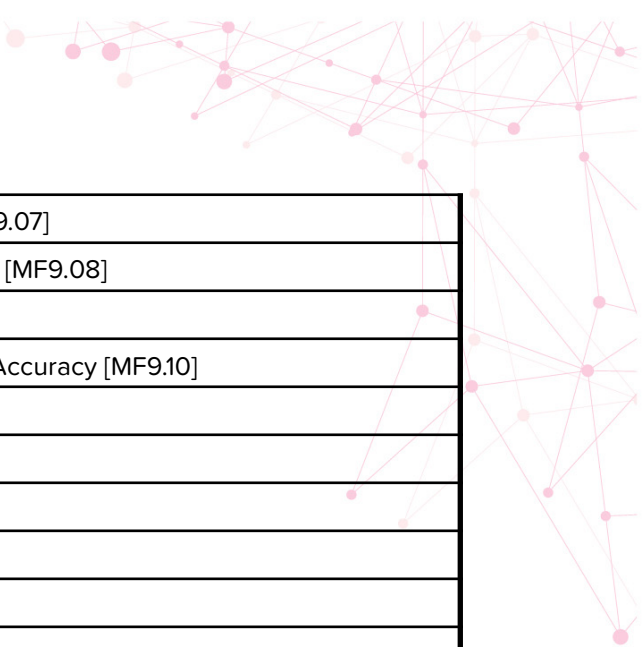
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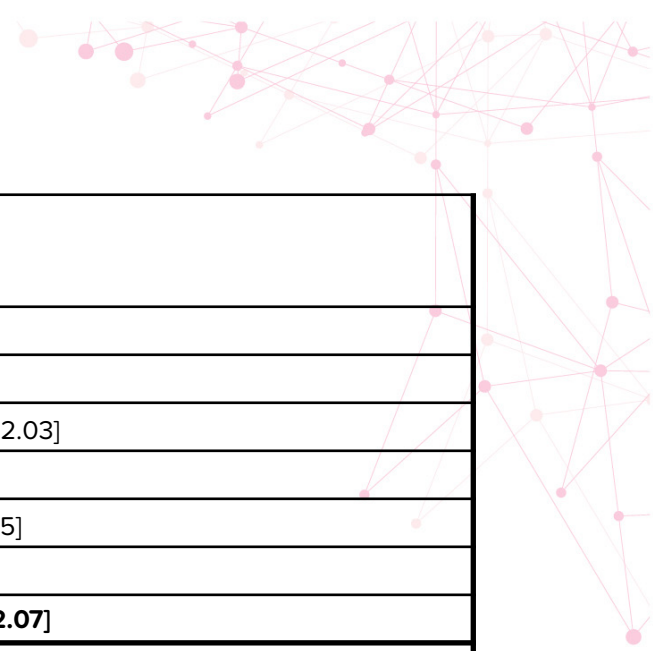
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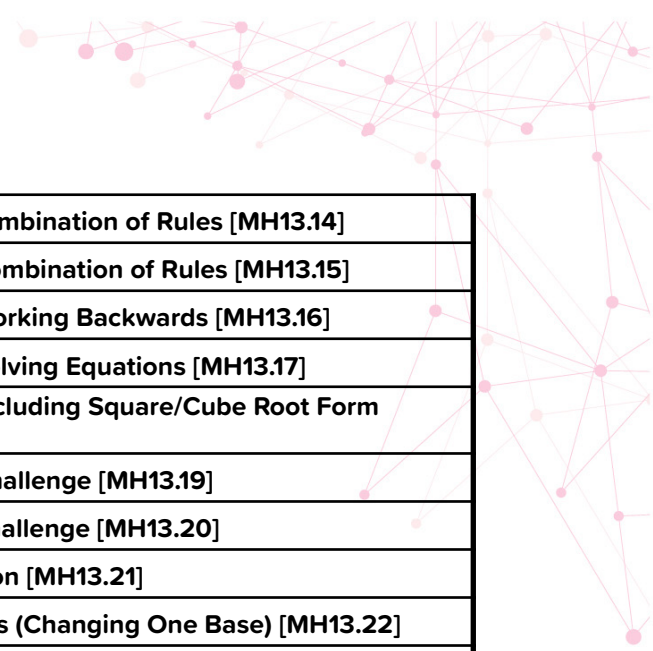
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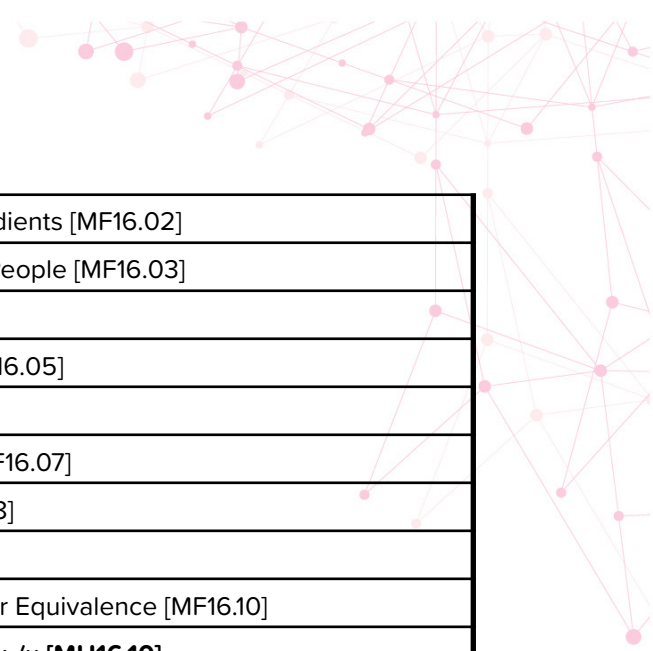
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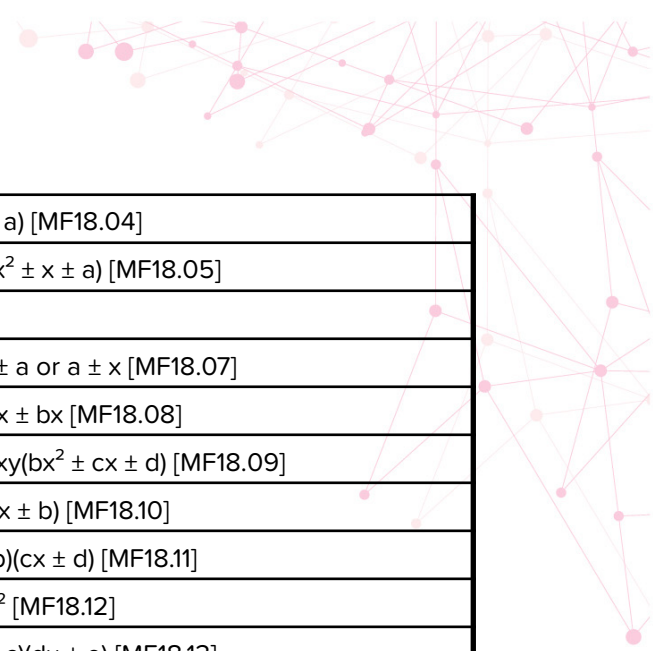


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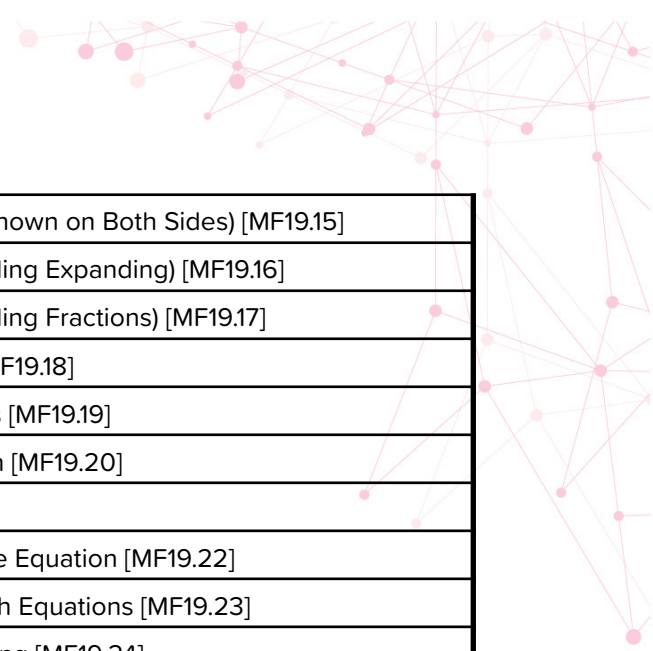


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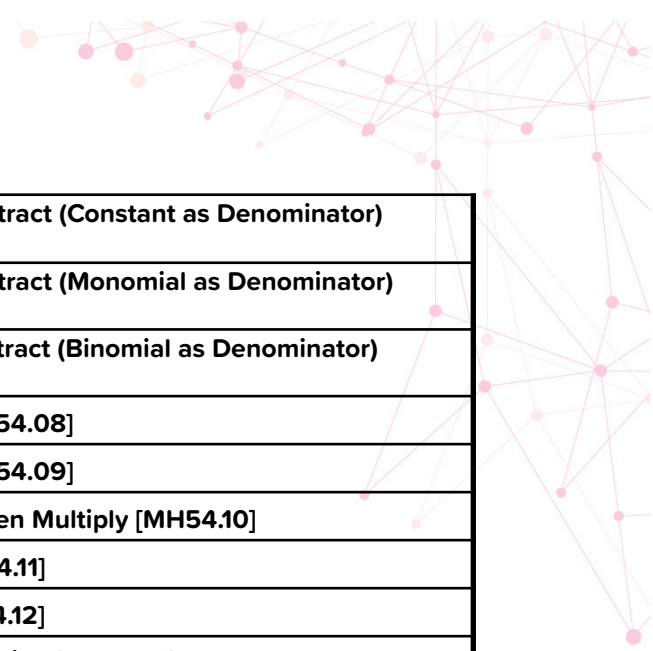




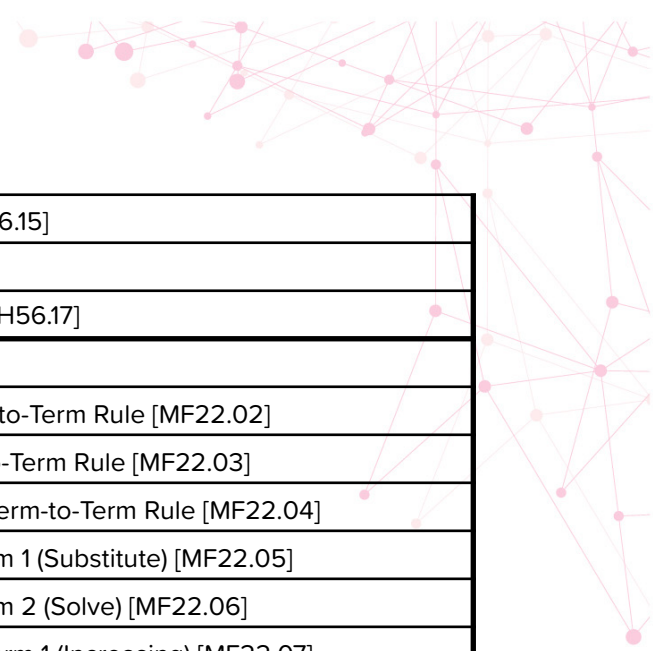
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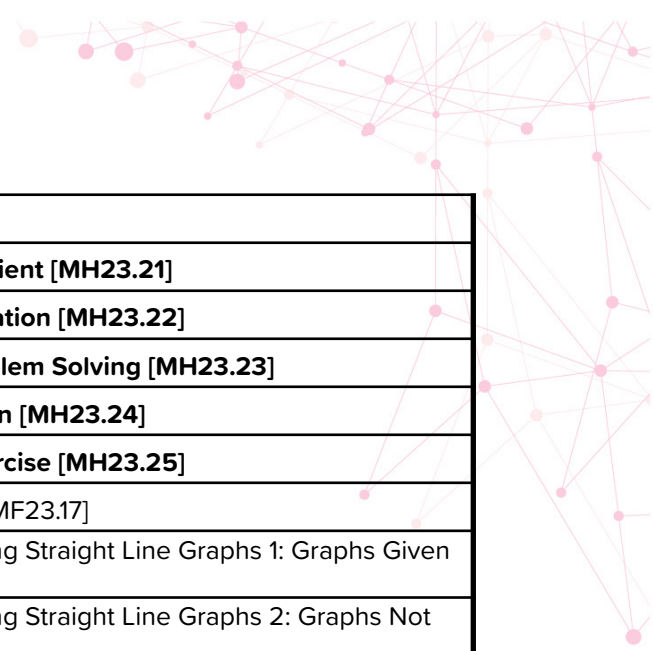
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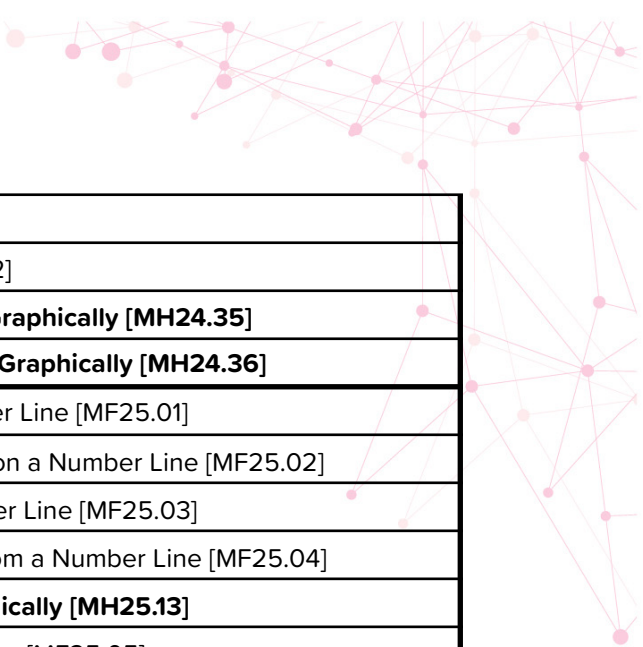
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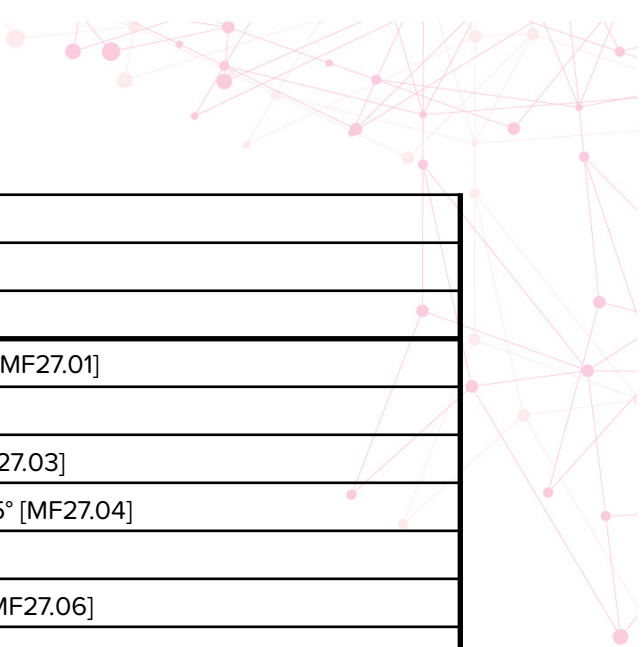
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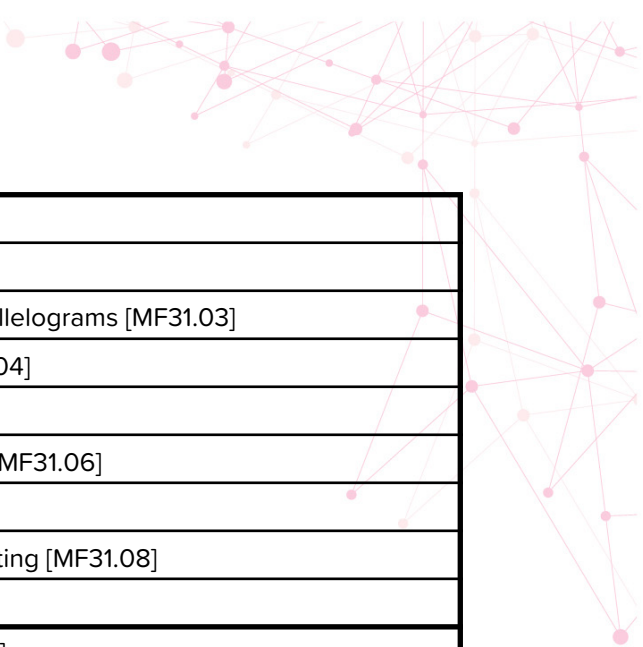
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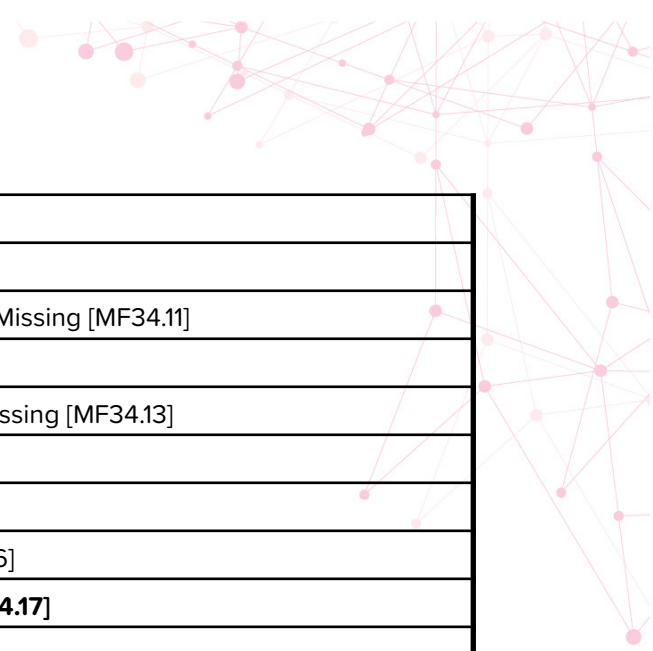


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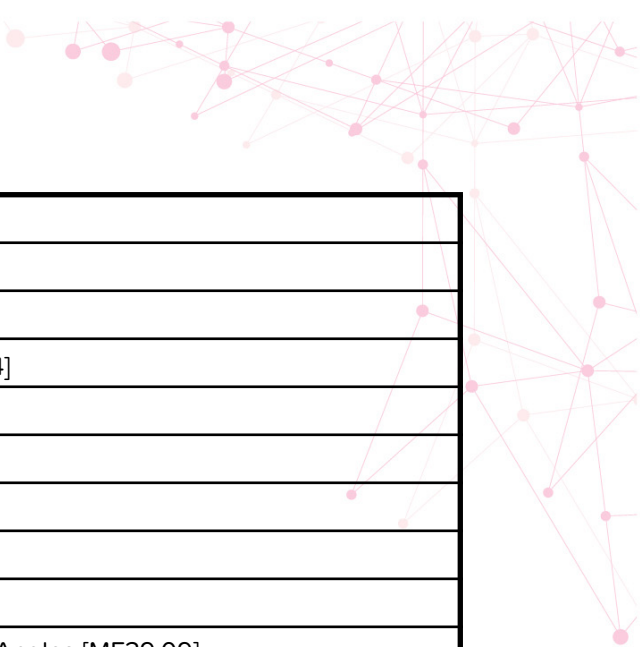
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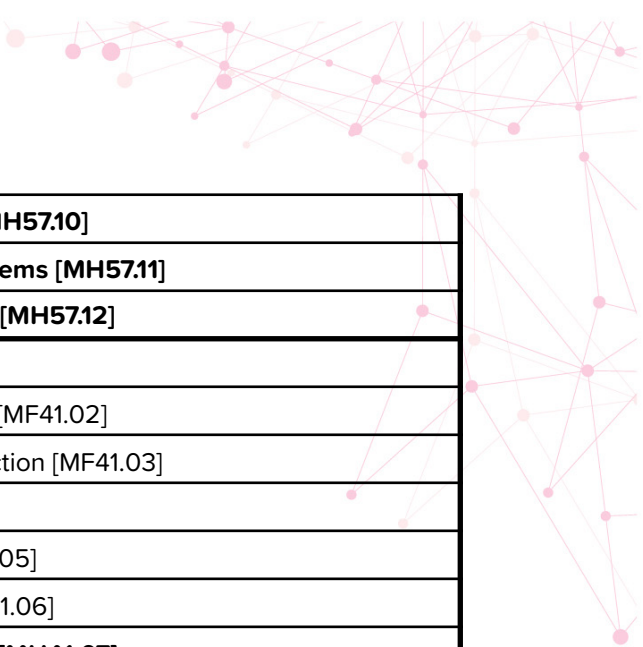


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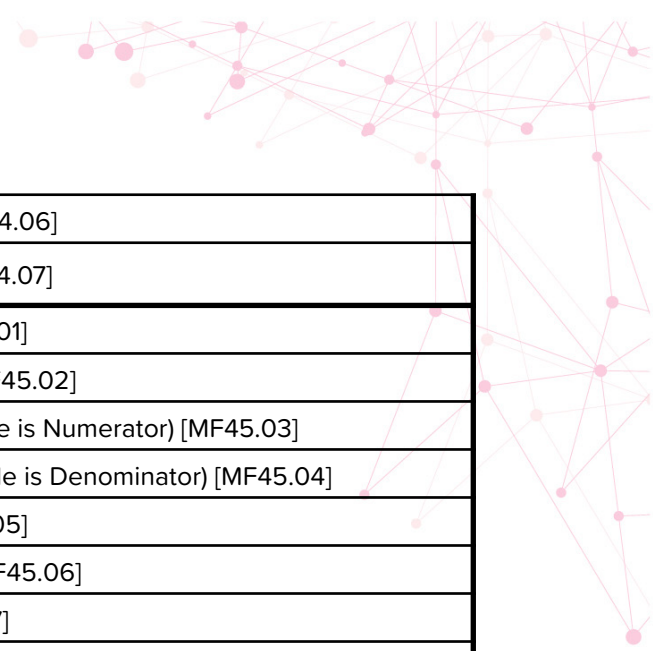
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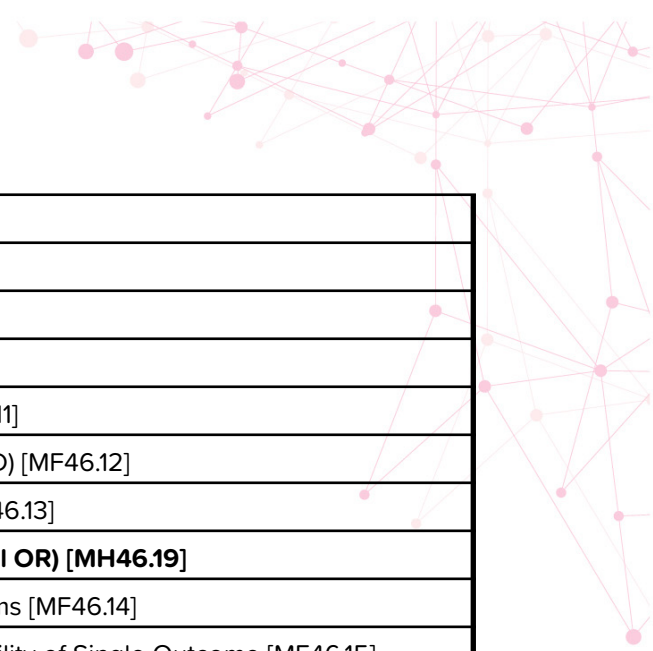
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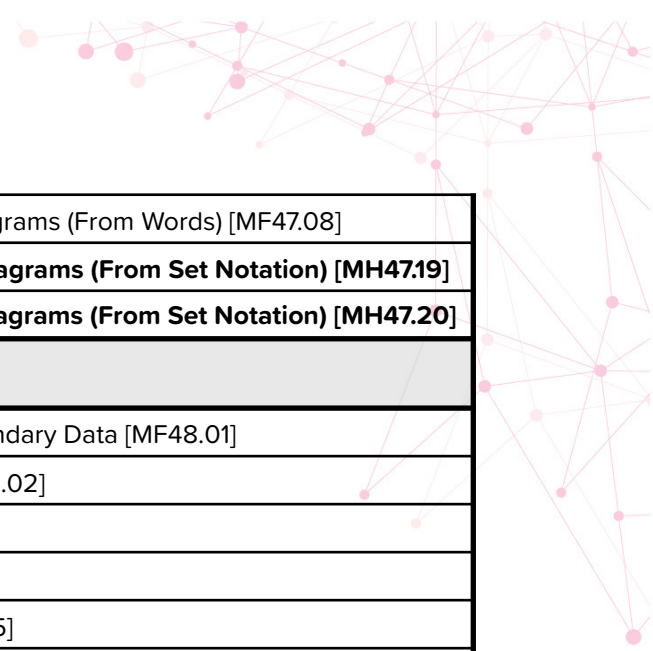
<b>Circle Theorems (cont.)</b>	<b>Mixed Circle Theorems 2: Algebra [MH57.10]</b>
	<b>Mixed Circle Theorems 3: Two Theorems [MH57.11]</b>
	<b>Mixed Circle Theorems 4: Challenge [MH57.12]</b>
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	Geometric Vectors 1: One Term [MF41.05]
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	<b>Geometric Vectors 3: Within Shapes [MH41.07]</b>
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	<b>Geometric Vectors 5: Midpoints [MH41.09]</b>
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	<b>Geometric Vectors 8: Parallel Vectors [MH41.12]</b>
	<b>Geometric Vectors 9: Proof [MH41.13]</b>
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	Constructing an Equilateral Triangle [MF42.02]
	Constructing Triangles [MI42.10]
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	Constructing Angles (30, 45, 60, 90) [MF42.06]
	Loci 1: Single Constructions [MF42.08]
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	<b>Similar Area 1 [MH43.07]</b>
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	Pythagoras: Finding the Hypotenuse [MF44.02]
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	Pythagoras: Mixed Sides [MF44.04]
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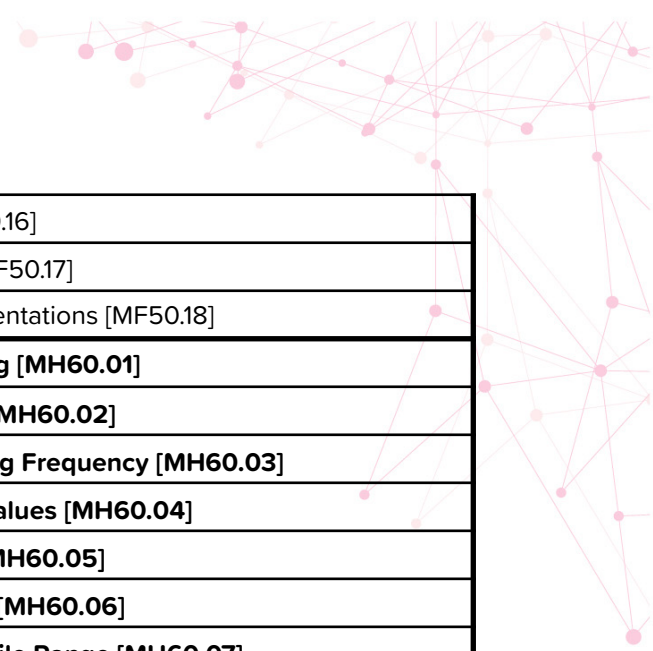
Pythagoras (cont.)	Pythagoras: Worded Questions [MF44.06]
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	<b><math>\frac{1}{2}(ab)\sin(C)</math>: Finding the area [MH58.02]</b>
	<b><math>\frac{1}{2}(ab)\sin(C)</math>: Area with Missing Value [MH58.03]</b>
	<b><math>\frac{1}{2}(ab)\sin(C)</math>: Applied [MH58.04]</b>
	<b>Sine Rule: Proof [MH58.05]</b>
	<b>Sine Rule: Sides [MH58.06]</b>
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	<b>Mixed Trigonometry 1 [MH58.14]</b>
	<b>Mixed Trigonometry 2: Multi-Step Problems [MH58.15]</b>
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	Frequency Trees [MF46.10]
	Interpreting Frequency Trees [MF46.11]
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	Tree Diagrams 2: Calculating Probability of Single Outcome [MF46.15]
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	Tree Diagrams 4: AND/OR Statements (2 Branch Trees) [MF46.17]
	<b>Tree Diagrams 5: AND/OR Statements (3 Branch Trees) [MH46.20]</b>
	<b>Tree Diagrams 6: AND/OR Statements (No Tree Given) [MH46.21]</b>
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	<b>Probabilities with Venn Diagrams 3: 3-Set Diagrams (From Set Notation) [MH47.16]</b>
	<b>Probabilities with Venn Diagrams 4: 3-Set Diagrams (Constructing) [MH47.17]</b>
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	<b>Shading Venn Diagrams 2: 2-Set Diagrams (From Set Notation) [MH47.19]</b>
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	Tally Chart [MF48.03]
	Questionnaires [MF48.04]
	Types of Random Sampling [MF48.05]
	Fair Samples [MF48.06]
	Grouped Tally Charts: Discrete and Continuous [MF48.07]
Analysing Data	Mode [MF49.01]
	Median [MF49.02]
	Mean 1: Positive Integers [MF49.03]
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	Applying Averages and the Range 1: Raw Data [MF49.09]
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	Applying Averages and the Range 2: Tables [MF49.19]
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	Creating Pie Charts (No Calculator) [MF50.09]
	Creating Pie Charts (Calculator) [MF50.10]
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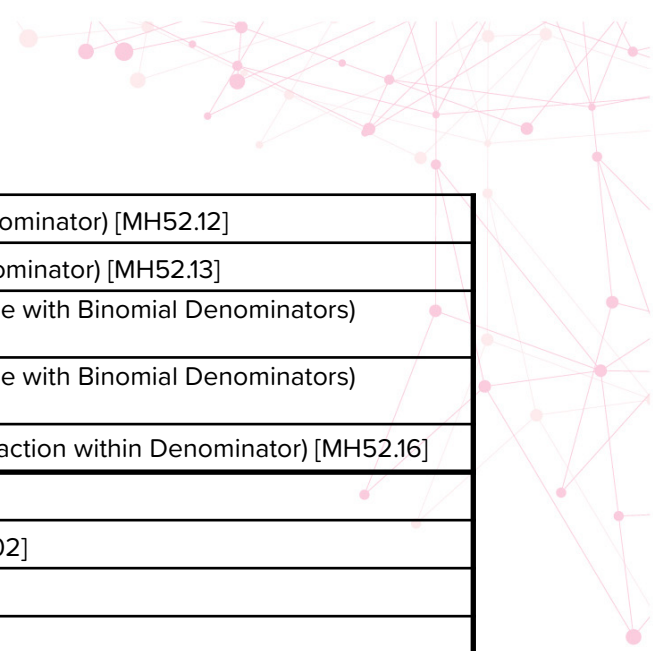
Displaying Data (cont.)	Frequency Polygons: Drawing [MF50.16]
	Frequency Polygons: Interpreting [MF50.17]
	Interpreting Misleading Data Representations [MF50.18]
<b>Cumulative Frequency and Box Plots</b>	<b>Cumulative Frequency 1: Calculating [MH60.01]</b>
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	<b>Cumulative Frequency 6: Quartiles [MH60.06]</b>
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<b>Histograms</b>	<b>Frequency Density 1: Calculating [MH61.01]</b>
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	<b>Histograms 1: Choosing Axes [MH61.03]</b>
	<b>Histograms 2: Plotting [MH61.04]</b>
	<b>Histograms 3: Calculating Frequency [MH61.05]</b>
	<b>Histograms 4: Calculating Frequency within a Given Range [MH61.06]</b>
	<b>Histograms 5: Mixed Exercise (Consolidates 1-4) [MH61.07]</b>
	<b>Histograms 6: Finding Fractions and Percentages [MH61.08]</b>
	<b>Histograms 7: Finding Proportions [MH61.09]</b>
	<b>Histograms 8: Median [MH61.10]</b>
	<b>Histograms 9: Mean [MH61.11]</b>
<b>Histograms 10: Mixed Exercise (Consolidates 6-9) [MH61.12]</b>	



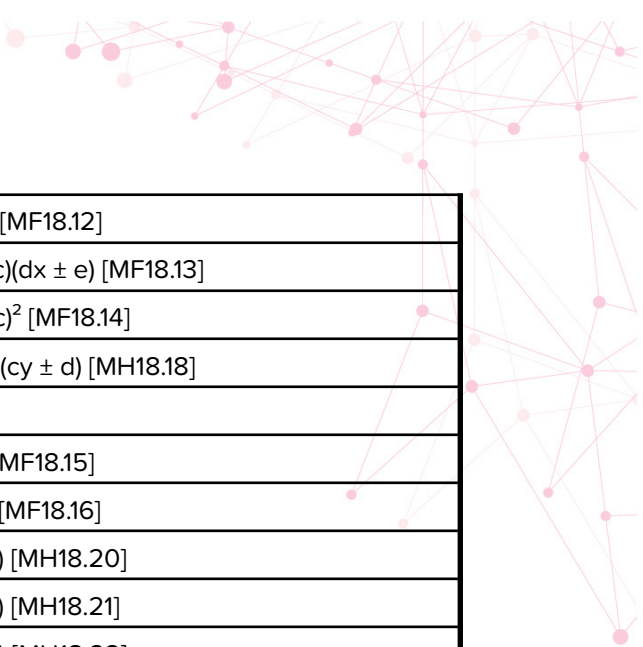
## Nuggets included in Mathematics - Bridge to A Level

Diagnostics contain mixed topics increasing in difficulty. The exception to this is Diagnostic 5 which contains only physics topics.

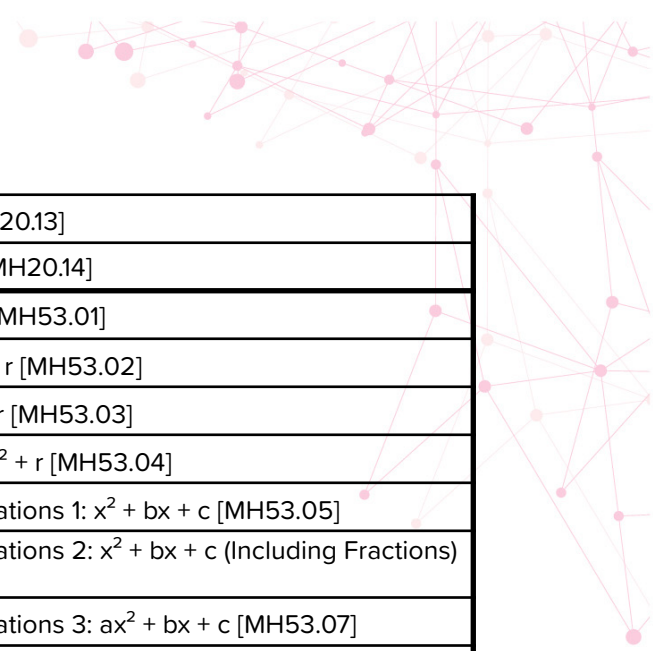
Strand	Nugget Names
Diagnostics	Diagnostic 1: Essentials [BR0.01]
	Diagnostic 2: Essentials [BR0.02]
	Diagnostic 3 [BR0.03]
	Diagnostic 4 [BR0.04]
	Diagnostic 5: Physics for Mechanics [BR0.05]
	Diagnostic 6 [BR0.06]
	Diagnostic 7 [BR0.07]
	Diagnostic 8 [BR0.08]
	Diagnostic 9 [BR0.09]
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	Exponential Growth [MH11.14]
	Exponential Decay [MH11.15]
	Exponential Growth and Decay [MH11.16]
Powers and Roots	Squares [MF12.01]
	Cubes [MF12.02]
	Squaring and Cubing Negatives [MF12.03]
	Powers [MF12.04]
	Roots of Squares and Cubes [MF12.05]
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Surds	Surds: Introduction [MH52.01]
	Surds: Multiplication and Division [MH52.02]
	Surds: Simplifying 1 [MH52.03]
	Surds: Simplifying 2 (Products of Surds) [MH52.04]
	Surds: Simplifying 3 (Dividing Surds) [MH52.05]
	Surds: Simplifying 4 (Sum and Difference) [MH52.06]
	Surds: Expanding 1 (Single Bracket) [MH52.07]
	Surds: Expanding 2 (Sum/Difference of Single Brackets) [MH52.08]
	Surds: Expanding 3 (Double Brackets) [MH52.09]
	Surds: Expanding 4 (Double Brackets, Surds with Coefficients) [MH52.10]
	Surds: Expanding 5 (Difference of Two Squares) [MH52.11]



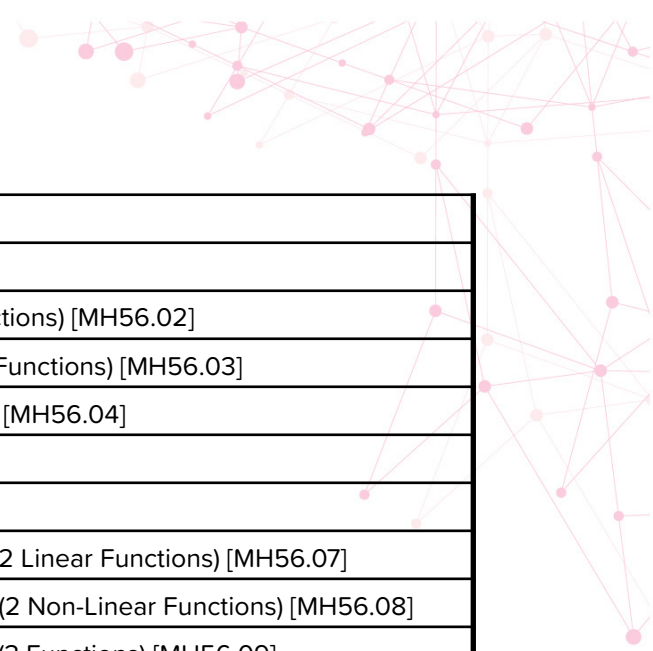
Surds (cont.)	Surds: Rationalising 1 (Monomial Denominator) [MH52.12]
	Surds: Rationalising 2 (Binomial Denominator) [MH52.13]
	Surds: Rationalising 3 (Sum/Difference with Binomial Denominators) [MH52.14]
	Surds: Rationalising 4 (Sum/Difference with Binomial Denominators) [MH52.15]
	Surds: Rationalising 5 (Surd within Fraction within Denominator) [MH52.16]
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	Raising a Fraction to a Power [MF13.02]
	Multiplying Indices [MF13.03]
	Dividing Indices [MF13.04]
	Power of a Power [MF13.05]
	Negative Indices [MF13.06]
	Combination of Indices [MF13.07]
	Fractional Indices 1: Square and Cube Root [MH13.08]
	Fractional Indices 2: Non-Unit Fraction [MH13.09]
	Fractional Indices 3: Negative Unit Fractions [MH13.10]
	Fractional Indices 4: Negative Non-Unit Fractions [MH13.11]
	Fractional Indices 5: Fraction Base [MH13.12]
	Solving Problems with Indices 1: Combination of Rules [MH13.14]
	Solving Problems with Indices 2: Combination of Rules [MH13.15]
	Solving Problems with Indices 3: Working Backwards [MH13.16]
	Solving Problems with Indices 4: Solving Equations [MH13.17]
	Solving Problems with Indices 5: Including Square/Cube Root Form [MH13.18]
	Solving Problems with Indices 6: Challenge [MH13.19]
	Solving Problems with Indices 7: Challenge [MH13.20]
	Exponential Equations 1: Introduction [MH13.21]
Exponential Equations 2: Quadratics (Changing One Base) [MH13.22]	
Exponential Equations 3: Quadratics (Changing Multiple Bases) [MH13.23]	
Exponential Equations 4: Challenge [MH13.24]	
Introduction to Algebra	Simplifying Expressions 1: Multiplication [MF17.07]
	Simplifying Expressions 2: Multiplication (In Context) [MF17.08]
	Simplifying Expressions 3: Division [MF17.09]
	Simplifying Expressions 4: Division [MF17.10]
	Simplifying Expressions 5: Multiplication and Division [MF17.11]
	Simplifying Expressions 6: Index Laws [MH17.17]
	Simplifying Expressions 7: Index Laws [MH17.18]
Expanding and Factorising	Expanding Single Brackets 5: $\pm ax(\pm ax^2 \pm x \pm a)$ [MF18.05]
	Expanding and Simplifying [MF18.06]
	Expanding Double Brackets 1: $(x \pm a)(x \pm b)$ [MF18.10]
	Expanding Double Brackets 2: $(ax \pm b)(cx \pm d)$ [MF18.11]



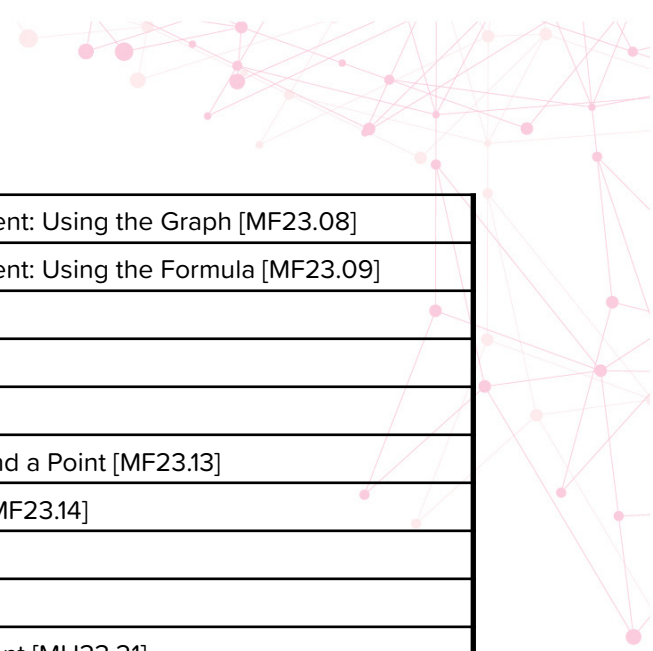
Expanding and Factorising (cont.)	Expanding Double Brackets 3: $(x \pm a)^2$ [MF18.12]
	Expanding Double Brackets 4: $a(bx \pm c)(dx \pm e)$ [MF18.13]
	Expanding Double Brackets 5: $a(bx \pm c)^2$ [MF18.14]
	Expanding Double Brackets 6: $(ax \pm b)(cy \pm d)$ [MH18.18]
	Expanding More Brackets [MH18.19]
	Factorising Quadratics 1: $(x + a)(x + b)$ [MF18.15]
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	Factorising Quadratics 3: $(ax \pm b)(x \pm c)$ [MH18.20]
	Factorising Quadratics 4: $(ax \pm b)(x \pm c)$ [MH18.21]
	Factorising Quadratics 5: $(ax \pm b)(x \pm c)$ [MH18.22]
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Solving Equations: Three Steps (Unknown on Both Sides) [MF19.15]	
Solving Equations: Four Steps (Including Expanding) [MF19.16]	
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Simultaneous Equations: Introduction [MF19.20]	
Simultaneous Equations 1 [MF19.21]	
Simultaneous Equations 2: Scale One Equation [MF19.22]	
Simultaneous Equations 3: Scale Both Equations [MF19.23]	
Simultaneous Equations 4: Rearranging [MF19.24]	
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Iteration 1: Find Solution Between [MH19.27]	
Iteration 2: Rearrange Iterative Formula [MH19.28]	
Iteration 3: Recursive Iteration [MH19.29]	
Solving Quadratic Equations	Solving Quadratics: $x^2 + b = 0$ [MF20.01]
	Solving Quadratics: $ax^2 + bx = 0$ [MF20.02]
	Solving Quadratics 1: $x^2 + bx + c = 0$ [MF20.03]
	Solving Quadratics 2: $x^2 + bx + c = 0$ (incl. Rearranging) [MF20.04]
	The Discriminant [MH20.05]
	Quadratic Formula 1: Identify A, B and C [MH20.06]
	Quadratic Formula 2: Applying the Formula [MH20.07]
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	Quadratic Formula 4: Give Answer in Form $(p \pm \sqrt{q})/r$ [MH20.09]
	Quadratic Formula 5: In Context [MH20.10]
	Solving Quadratics 3: $ax^2 + bx + c = 0$ (a is Prime) [MH20.11]
	Solving Quadratics 4: $ax^2 + bx + c = 0$ (a is Not Prime) [MH20.12]



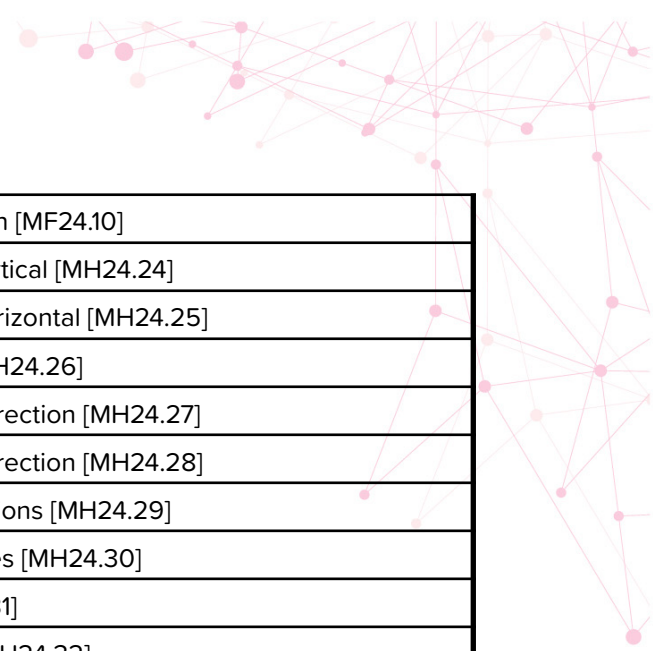
Solving Quadratic Equations (cont.)	Solving Quadratics 5: Challenge [MH20.13]
	Quadratic Simultaneous Equations [MH20.14]
Completing the Square	Completing the Square 1: $(x + q)^2 + r$ [MH53.01]
	Completing the Square 2: $(x + q/2)^2 + r$ [MH53.02]
	Completing the Square 3: $p(x + q)^2 + r$ [MH53.03]
	Completing the Square 4: $-p(x + q/2)^2 + r$ [MH53.04]
	Completing the Square to Solve Equations 1: $x^2 + bx + c$ [MH53.05]
	Completing the Square to Solve Equations 2: $x^2 + bx + c$ (Including Fractions) [MH53.06]
	Completing the Square to Solve Equations 3: $ax^2 + bx + c$ [MH53.07]
	Completing the Square to Solve Equations 4: Mixed Exercise [MH53.08]
	Completing the Square: Turning Points [MH53.09]
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	Algebraic Fractions 2: Simplify (Monomial Factors incl. Negatives) [MH54.02]
	Algebraic Fractions 3: Simplify (Binomial Factors) [MH54.03]
	Algebraic Fractions 4: Simplify (Binomial Factors) [MH54.04]
	Algebraic Fractions 5: Add and Subtract (Constant as Denominator) [MH54.05]
	Algebraic Fractions 6: Add and Subtract (Monomial as Denominator) [MH54.06]
	Algebraic Fractions 7: Add and Subtract (Binomial as Denominator) [MH54.07]
	Algebraic Fractions 8: Multiply [MH54.08]
	Algebraic Fractions 9: Multiply [MH54.09]
	Algebraic Fractions 10: Factorise then Multiply [MH54.10]
	Algebraic Fractions 11: Divide [MH54.11]
	Algebraic Fractions 12: Solve [MH54.12]
	Algebraic Fractions 13: Problem Solving [MH54.13]
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	Recalling and Using Formulae 1 [MF21.04]
	Recalling and Using Formulae 2 [MH21.11]
	Rearranging Formulae: One Step [MF21.05]
	Rearranging Formulae: Two Step [MF21.06]
	Rearranging Formulae: Negative Subject [MF21.07]
	Rearranging Formulae: Unknown in Denominator [MF21.08]
	Rearranging Formulae: With Powers [MF21.09]
	Rearranging Formulae: Unknown on Both Sides [MF21.10]
Algebraic Proof	Introduction to Algebraic Proof [MH55.01]
	Algebraic Proof 1: Complete the Proof [MH55.02]
	Algebraic Proof 2 [MH55.03]
	Algebraic Proof: Disproving by Example [MH55.04]
Functions	Functions: Key Concept [MH56.01]



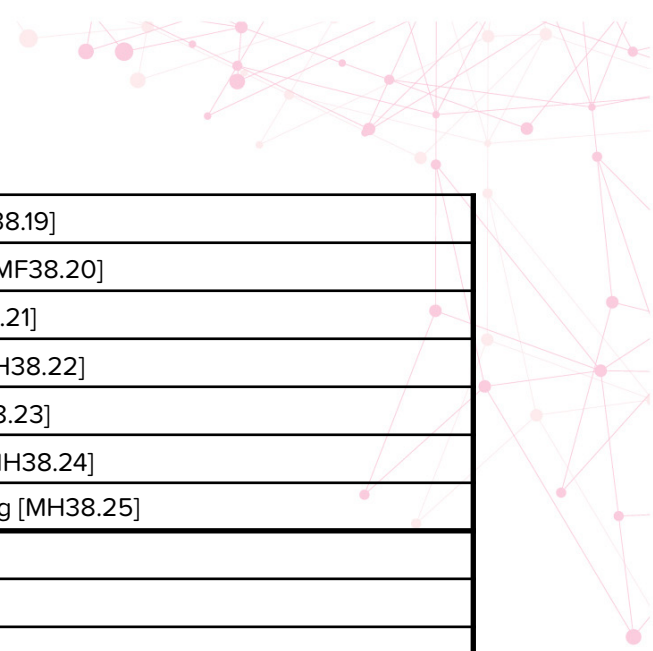
Functions	Functions: Domain [MI56.18]
	Functions: Range [MI56.19]
	Functions: Substitution 1 (Linear Functions) [MH56.02]
	Functions: Substitution 2 (Quadratic Functions) [MH56.03]
	Functions: Substitution 3 (Challenge) [MH56.04]
	Functions: Solving [MH56.05]
	Functions: Algebraic [MH56.06]
	Composite Functions: Substitution 1 (2 Linear Functions) [MH56.07]
	Composite Functions: Substitution 2 (2 Non-Linear Functions) [MH56.08]
	Composite Functions: Substitution 3 (3 Functions) [MH56.09]
	Composite Functions: Substitution 4 (Quadratic Functions) [MH56.10]
	Composite Functions: Solving [MH56.11]
	Composite Functions: Algebraic [MH56.12]
	Inverse Functions 1: Linear [MH56.13]
	Inverse Functions 2: Non-Linear [MH56.14]
	Inverse Functions: Substitution [MH56.15]
	Inverse Functions: Solving [MH56.16]
Composite and Inverse Functions [MH56.17]	
Sequences	Linear Sequences: Using the nth Term 1 (Substitute) [MF22.05]
	Linear Sequences: Using the nth Term 2 (Solve) [MF22.06]
	Sequences: $a + (n - 1)d$ [MI22.20]
	Linear Sequences: Finding the nth Term 1 (Increasing) [MF22.07]
	Linear Sequences: Finding the nth Term 2 (Decreasing) [MF22.08]
	Sum of Arithmetic Sequences 1 [MI22.21]
	Sum of Arithmetic Sequences 2: Reverse [MI22.22]
	Important Sequences: Squares, Cubes and Triangular Numbers [MF22.10]
	Important Sequences: Geometric [MF22.11]
	Quadratic Sequences: Using the nth Term [MF22.13]
	Subscript Notation [MH22.14]
	Unusual Sequences [MH22.15]
	Quadratic Sequences 1: $n^2 + c$ [MH22.16]
	Quadratic Sequences 2: $an^2 + c$ [MH22.17]
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	Other Important Linear Graphs [MF23.05]
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	Solving Simultaneous Equations Using Straight Line Graphs 1: Graphs Given [MF23.18]	
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		Plotting Simple Quadratic Graphs 2: $y = ax^2 + bx + c$ [MF24.02]
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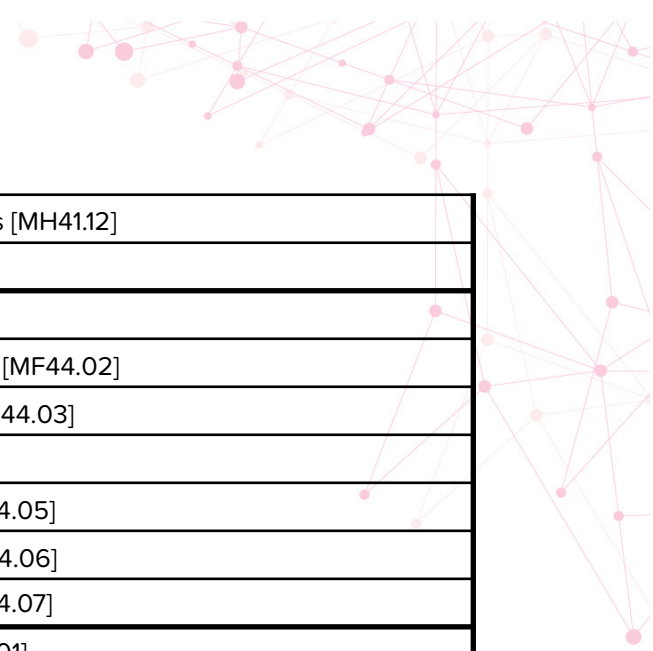


Quadratic and Other Graphs (cont.)	Approximate Solutions Using a Graph [MF24.10]
	Transforming Graphs: Translating Vertical [MH24.24]
	Transforming Graphs: Translating Horizontal [MH24.25]
	Transforming Graphs: Reflections [MH24.26]
	Transforming Graphs: Stretching y-direction [MH24.27]
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	Solving Inequalities: One Step and Two Sided [MF25.09]
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	Solving Inequalities: Finding Integer Solutions with Two Sides [MF25.11]
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	Solving Inequalities: Quadratics 1 [MH25.14]
	Solving Inequalities: Quadratics 2 (Rearranging) [MH25.15]
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	Regions 1: One Vertical/Horizontal Line [MH25.18]
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	Area and Perimeter of Composite Shapes with Sectors 1 [MF32.16]
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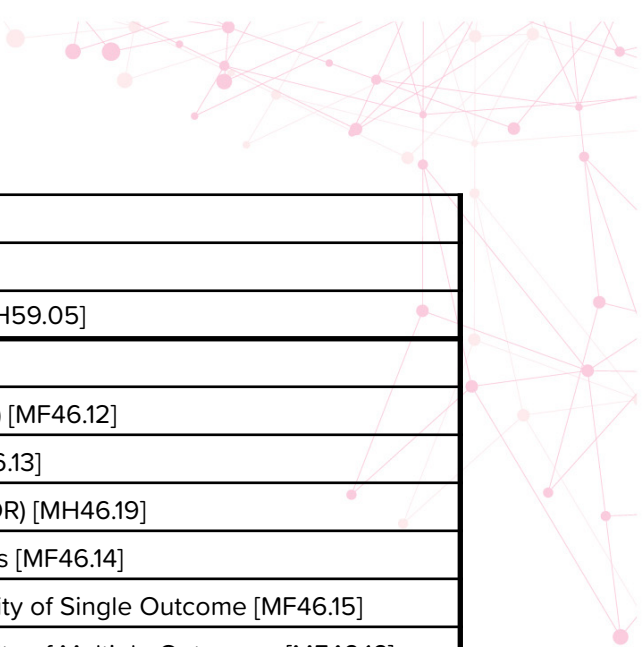


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	Mixed Circle Theorems 1: Practice [MH57.09]
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	Column Vectors: Scalar Multiplication [MF41.02]
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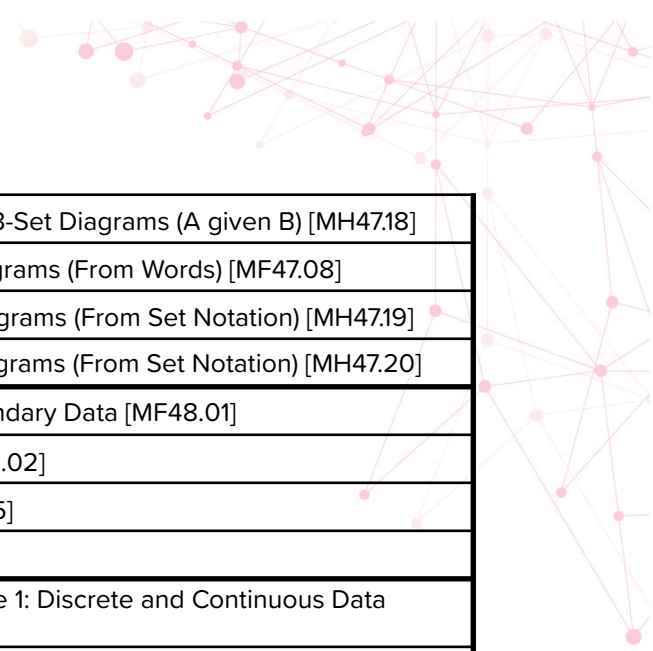




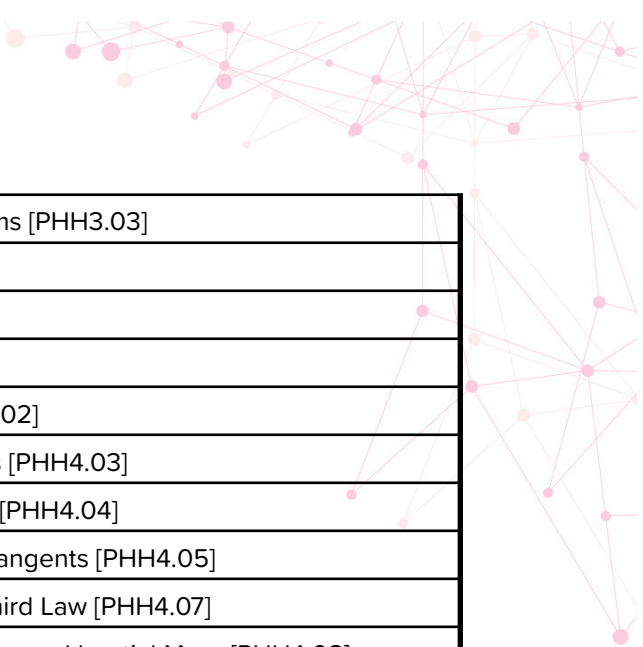
Vectors (cont.)	Geometric Vectors 8: Parallel Vectors [MH41.12]
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	Pythagoras: Finding the Hypotenuse [MF44.02]
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	Trigonometry: Using a Calculator [MF45.02]
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	$\frac{1}{2}(ab)\sin(C)$ : Finding the area [MH58.02]
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	Tree Diagrams 2: Calculating Probability of Single Outcome [MF46.15]
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	Tree Diagrams 4: AND/OR Statements (2 Branch Trees) [MF46.17]
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Sets and Venn Diagrams	Set Notation [MF47.01]
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	Elements in a Set 2: Unions and Intersections [MF47.03]
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	Subsets: Introduction [MI47.25]
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	Introduction to Venn Diagrams [MF47.05]
	Constructing Venn Diagrams 1: Listing Elements [MF47.06]
	Constructing Venn Diagrams 2: Writing Values [MF47.07]
	Constructing Venn Diagrams 3: 3-Set Diagrams [MH47.12]
	Interpreting Venn Diagrams 1: 2-Set Diagrams [MF47.09]
	Interpreting Venn Diagrams 2: 3-Set Diagrams (From Set Notation) [MH47.13]
	Venn Diagrams: Complements [MH47.14]
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	Probabilities with Venn Diagrams 1: 2-Set Diagrams [MF47.10]
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Probabilities with Venn Diagrams 3: 3-Set Diagrams (From Set Notation) [MH47.16]	
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	Shading Venn Diagrams 2: 2-Set Diagrams (From Set Notation) [MH47.19]
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	Cumulative Frequency 4: Finding Values [MH60.04]
	Cumulative Frequency 5: Median [MH60.05]
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	Cumulative Frequency 8: Plot and Evaluate [MH60.08]
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	Box Plots 1: Interpret [MH60.09]
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Histograms	Frequency Density 1: Calculating [MH61.01]
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	Histograms 3: Calculating Frequency [MH61.05]
	Histograms 4: Calculating Frequency within a Given Range [MH61.06]
	Histograms 5: Mixed Exercise (Consolidates 1-4) [MH61.07]
	Histograms 6: Finding Fractions and Percentages [MH61.08]
	Histograms 7: Finding Proportions [MH61.09]
	Histograms 8: Median [MH61.10]
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Histograms 10: Mixed Exercise (Consolidates 6-9) [MH61.12]	
Physics for Maths	Forces Between Objects: Forces, Vectors and Scalars [PHH3.01]
	Weight, Mass and Gravitational Field Strength [PHH3.02]

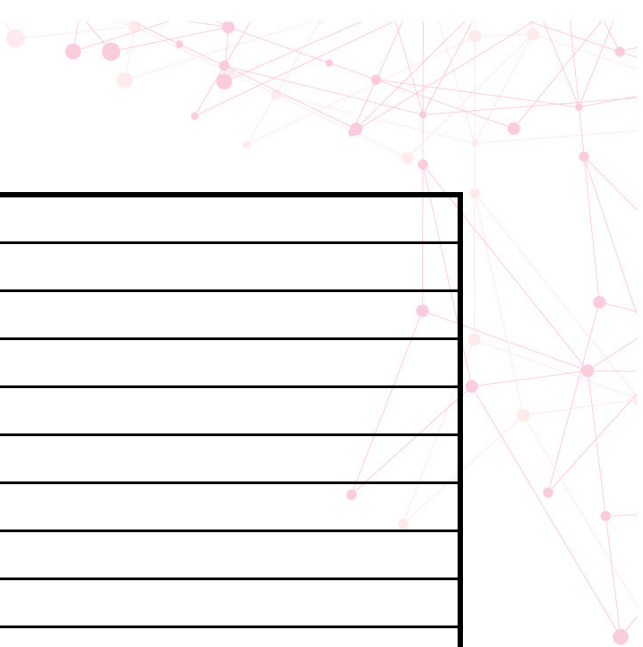


Physics for Maths (cont.)	Resultant Forces & Free Body Diagrams [PHH3.03]
	Moments and Equilibrium [PHH3.08]
	Moments: Levers [PHH3.09]
	Speed and Velocity [PHH4.01]
	Acceleration and Deceleration [PHH4.02]
	Motion Graphs: Distance-Time Graphs [PHH4.03]
	Motion Graphs: Velocity-Time Graphs [PHH4.04]
	Motion Graphs: Enclosed Areas and Tangents [PHH4.05]
	Forces Between Objects: Newton's Third Law [PHH4.07]
	Forces & Motion: Newton's Second Law and Inertial Mass [PHH4.08]
	Forces & Motion: Momentum & Collisions [PHH4.09]
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	Differentiating Functions 2: Multiple Terms [MI62.02]
	Differentiating Functions 3: Negative Powers [MI62.03]
	Differentiating Functions 4: Involving Expanding [MI62.04]
	Differentiating Functions: Gradient at a Point 1 [MI62.05]
	Differentiating Functions: Gradient at a Point 2 [MI62.06]
	Differentiating Functions: Turning Points 1 [MI62.07]
	Differentiating Functions: Turning Points 2 [MI62.08]
	Differentiating Functions: Problem Solving [MI62.09]
	Differentiating Functions: Kinematics [MI62.10]
	Differentiating Functions: Second Derivative [MI62.11]

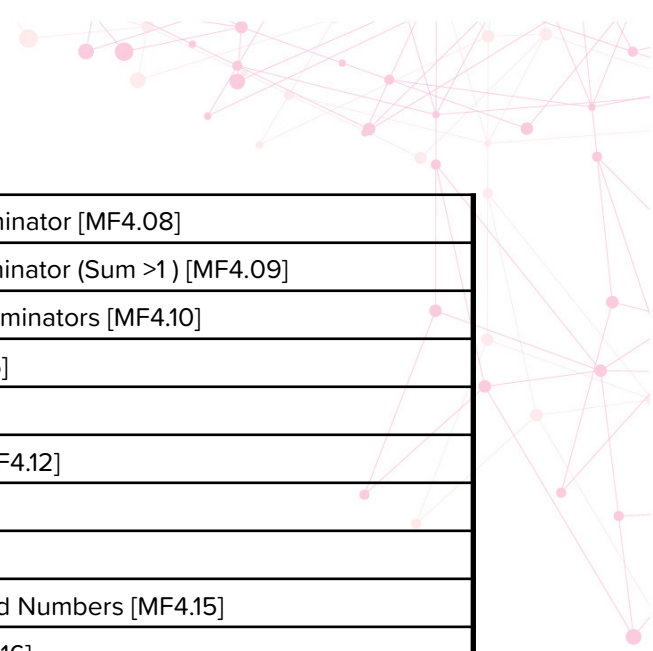
## Nuggets included in Mathematics - Secondary (Foundation and Higher)

Nuggets in bold are present in the Higher course only.

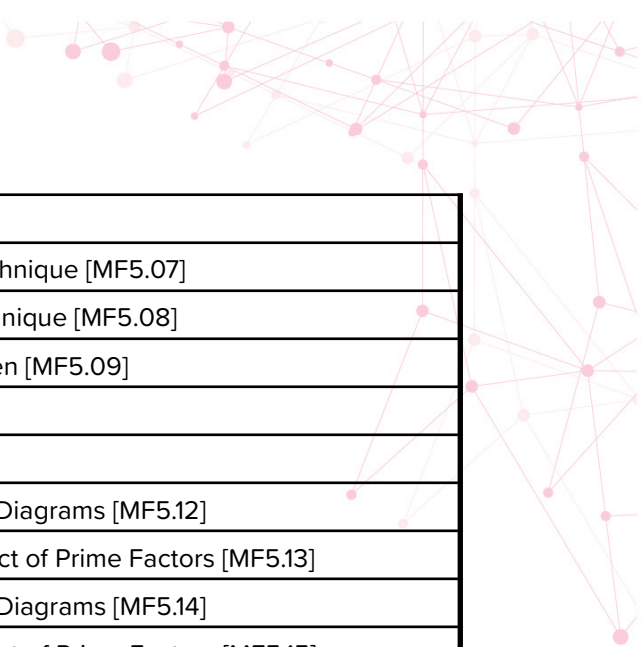
Strand	Nugget Names
Diagnostics	Diagnostic: Number 1 [MF0.01]
	Diagnostic: Algebra 1 [MF0.02]
	Diagnostic: Geometry 1 [MF0.03]
	Diagnostic: Number 2 [MF0.04]
	Diagnostic: Probability 1 [MF0.05]
	Diagnostic: Statistics 1 [MF0.06]
	Diagnostic: Algebra 2 [MF0.07]
	Diagnostic: Geometry 2 [MF0.08]
	<b>Diagnostic: Number 3 [MH0.09]</b>
	<b>Diagnostic: Number 4 [MH0.10]</b>
	<b>Diagnostic: Algebra 3 [MH0.11]</b>
	<b>Diagnostic: Algebra 4 [MH0.12]</b>
	<b>Diagnostic: Algebra 5 [MH0.13]</b>
	<b>Diagnostic: Geometry 3 [MH0.14]</b>
	<b>Diagnostic: Geometry - Circles and Circle Theorems [MH0.15]</b>
	<b>Diagnostic: Statistics 2 [MH0.16]</b>
<b>Diagnostic: Probability 2 [MH0.17]</b>	
<b>Diagnostic: Geometry - Advanced Trigonometry [MH0.18]</b>	
<b>Number</b>	
Simple Arithmetic	Addition [MF1.01]
	Subtraction [MF1.02]
	Addition and Subtraction [MF1.03]
	Times Tables: 2, 5 and 10 [MF1.04]
	Times Tables: 3 and 4 [MF1.05]
	Times Tables: 6 and 7 [MF1.06]
	Times Tables: 8 and 9 [MF1.07]
	Times Tables: 11 and 12 [MF1.08]
	Commutative Law [MF1.09]
	Associative Law [MF1.10]
	Division: 1, 2, 3, 4, 5 and 10 [MF1.11]
	Division: 6, 7, 8, 9, 11 and 12 [MF1.12]
	Division: Mixed [MF1.13]
	Distributive Law [MF1.14]



Understanding Number	Integer Place Value [MF2.01]
	Mathematical Symbols [MF2.02]
	Negative Numbers [MH2.03]
	Symmetrical Subtraction [MF2.04]
	Adding Negatives [MF2.05]
	Subtracting Negatives [MF2.06]
	Negatives and Positives [MH2.07]
	Ordering Integers [MF2.08]
	Ordering Decimals [MF2.09]
	Ordering Negatives [MF2.10]
	Multiplying by Powers of Ten [MF2.11]
	Dividing by Powers of Ten [MF2.12]
	Rounding to the nearest 10, 100 and 1000 [MF2.13]
Four Operations	Column Addition [MF3.01]
	Column Subtraction [MF3.02]
	Addition and Subtraction: Worded Questions [MF3.03]
	Multiplying Negatives [MF3.04]
	Dividing Negatives [MF3.05]
	Multiplying and Dividing with Negatives [MF3.06]
	Column Multiplication [MF3.07]
	Grid Multiplication [MF3.08]
	Multiplication with Napier's Bones [MF3.09]
	Testing for Divisibility [MF3.10]
	Short Division [MF3.11]
	Dividing by Multi-Digit Numbers [MF3.12]
	Multiplication and Division: Worded Questions [MF3.13]
	BIDMAS Introduction [MF3.14]
	BIDMAS Intermediate [MF3.15]
	BIDMAS Advanced [MF3.16]
	Using a Calculator 1: Powers and Roots of a Single Number [MF3.17]
	Using a Calculator 2: Multiple Numbers [MF3.18]
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Working with Fractions	Expressing Fractions [MF4.01]
	Ordering Fractions [MF4.02]
	Equivalent Fractions [MF4.03]
	Simplifying Fractions [MF4.04]
	Shading Fractions [MF4.05]
	Mixed and Improper Fractions [MF4.06]
	Adding Fractions 1: Same Denominator [MF4.07]

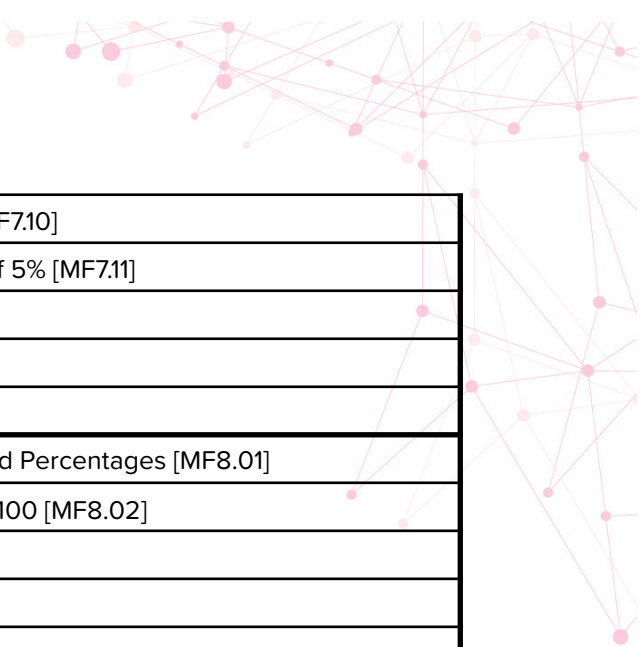


Working with Fractions (cont.)	Adding Fractions 2: Convert 1 Denominator [MF4.08]
	Adding Fractions 3: Convert 1 Denominator (Sum >1) [MF4.09]
	Adding Fractions 4: Convert all Denominators [MF4.10]
	Fractions: Subtracting from 1 [MF4.36]
	Subtracting Fractions [MF4.11]
	Adding and Subtracting Fractions [MF4.12]
	Adding Improper Fractions [MF4.13]
	Adding Mixed Numbers [MF4.14]
	Adding Improper Fractions and Mixed Numbers [MF4.15]
	Subtracting Improper Fractions [MF4.16]
	Subtracting Mixed Numbers [MF4.17]
	Subtracting Improper Fractions and Mixed Numbers [MF4.18]
	Adding and Subtracting Improper Fractions [MF4.19]
	Adding and Subtracting Mixed Numbers [MF4.20]
	Adding and Subtracting Improper Fractions and Mixed Numbers [MF4.21]
	Fractions on a Number Line 1: Between 0 and 1 [MF4.37]
	Fractions on a Number Line 2: Beyond 1 [MF4.38]
	Reciprocals [MF4.22]
	Multiplying Fractions 1 [MF4.23]
	Multiplying Fractions 2 [MF4.24]
	Dividing Fractions [MF4.25]
	Multiplying and Dividing Mixed Numbers [MF4.26]
	Multiplying with Whole Numbers and Fractions [MF4.27]
	Dividing with Whole Numbers and Fractions [MF4.28]
	Fraction of Amounts: Modelling [MF4.39]
	Fraction of Amounts: Non-Calculator [MF4.29]
	Fraction of Amounts: Calculator [MF4.30]
	Increasing and Decreasing by Fractions [MF4.31]
	Fraction of Amounts: Modelling Finding the Whole [MF4.40]
	Reverse Fractions [MF4.32]
	Reverse Fractions: Worded Questions [MF4.33]
	Estimating Products of Fractions [MF4.34]
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<b>Applied Fractions [MH4.34]</b>	
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	Odds and Evens with Multiplication [MF5.02]
	Primes [MF5.03]
	Multiples [MF5.04]
	Factors [MF5.05]

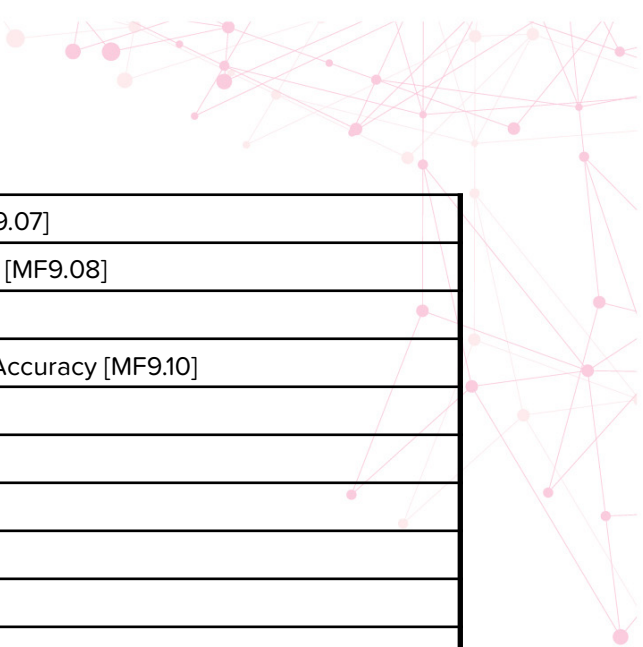


Factors, Multiples and Primes (cont.)	Multiples and Factors [MF5.06]
	Lowest Common Multiple - Listing Technique [MF5.07]
	Highest Common Factor - Listing Technique [MF5.08]
	Prime Factorisation 1: Factor Tree Given [MF5.09]
	Prime Factorisation 2 [MF5.10]
	Uses of Prime Factorisation [MF5.11]
	HCF Using Prime Factorisation: Venn Diagrams [MF5.12]
	HCF Using Prime Factorisation: Product of Prime Factors [MF5.13]
	LCM Using Prime Factorisation: Venn Diagrams [MF5.14]
	LCM Using Prime Factorisation: Product of Prime Factors [MF5.15]
	HCF and LCM with Prime Factorisation [MF5.16]
	<b>HCF and LCM of 3 Numbers [MH5.17]</b>
	<b>Solving Problems with HCF and LCM 1 [MH5.18]</b>
	<b>Solving Problems with HCF and LCM 2 [MH5.19]</b>
	<b>Solving Problems with HCF and LCM 3: Reverse [MH5.20]</b>
Working with Decimals	Decimal Place Value [MF6.01]
	Adding Decimals 1: Calculations [MF6.02]
	Adding Decimals 2: Worded Problems [MF6.03]
	Subtracting Decimals 1: Calculations [MF6.04]
	Subtracting Decimals 2: Worded Problems [MF6.05]
	Multiplying Decimals 1 [MF6.06]
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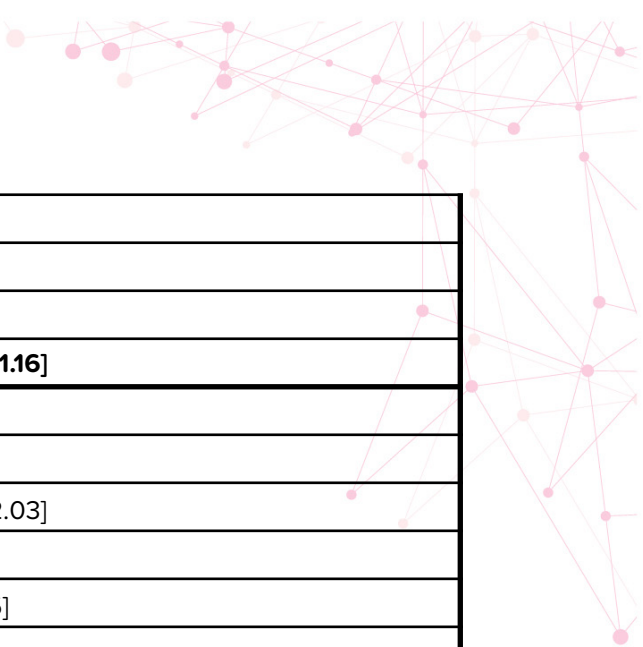




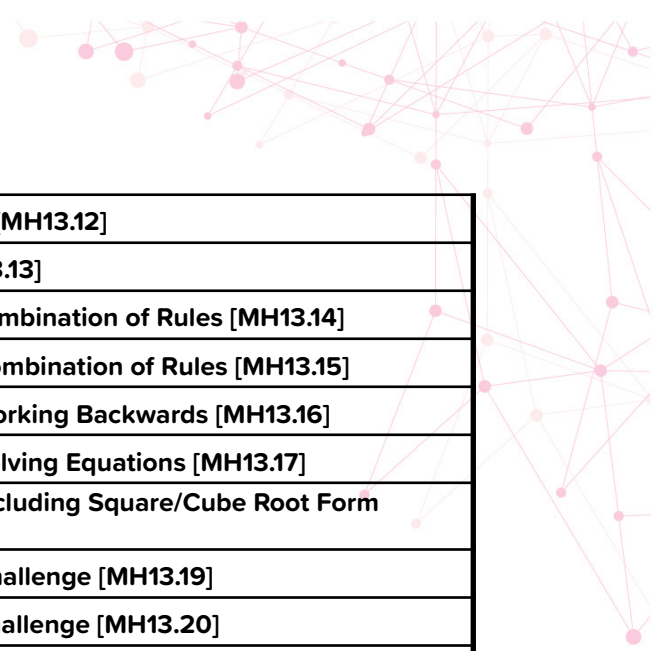
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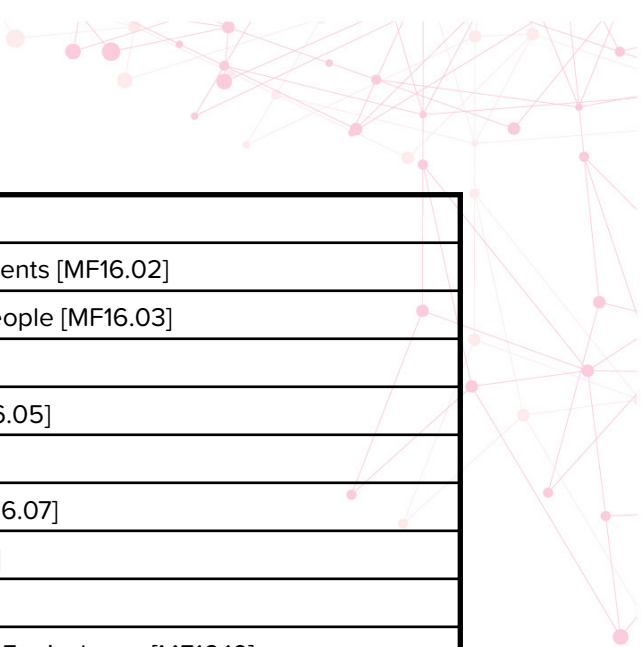
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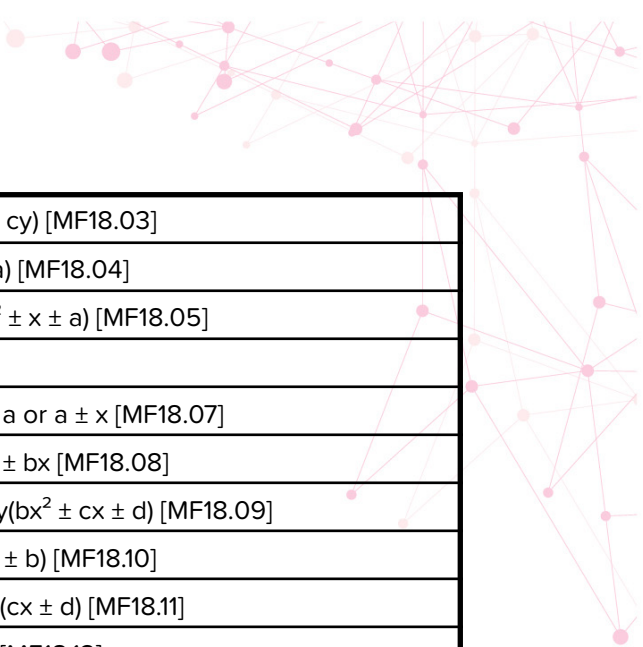
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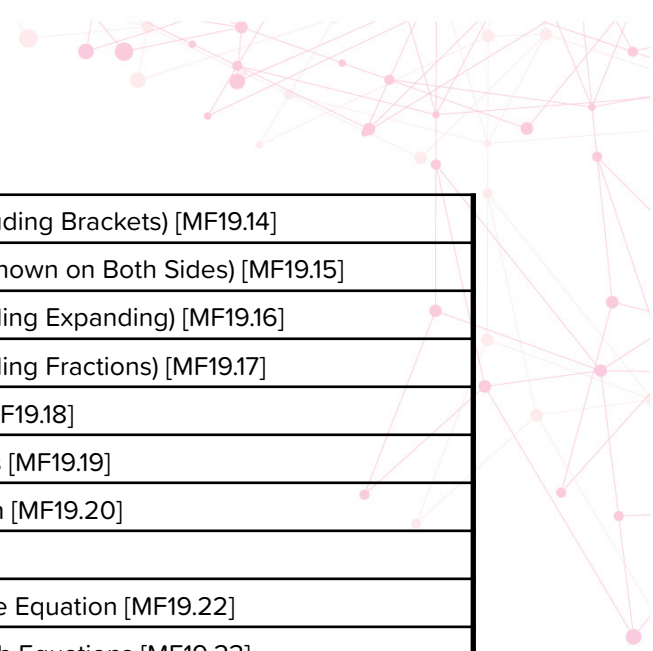
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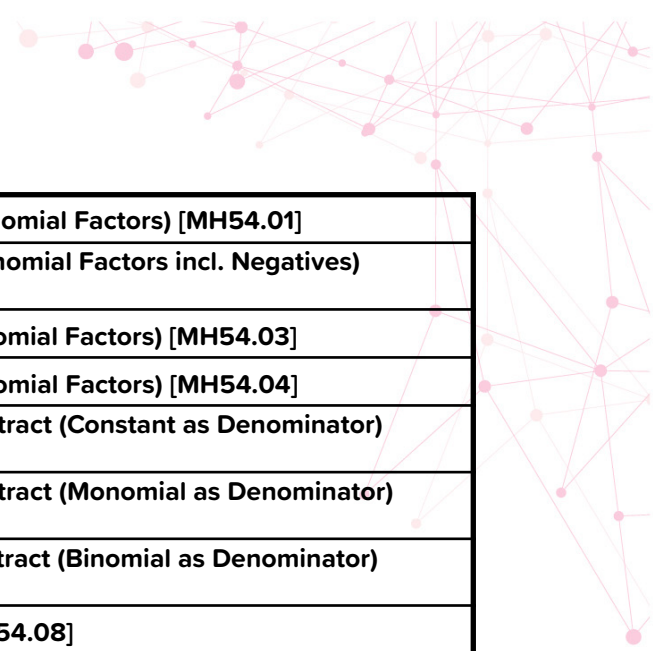
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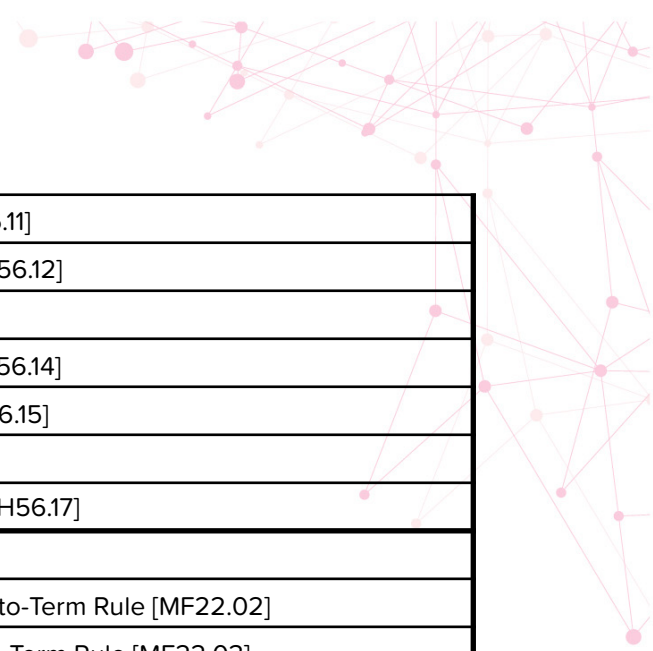


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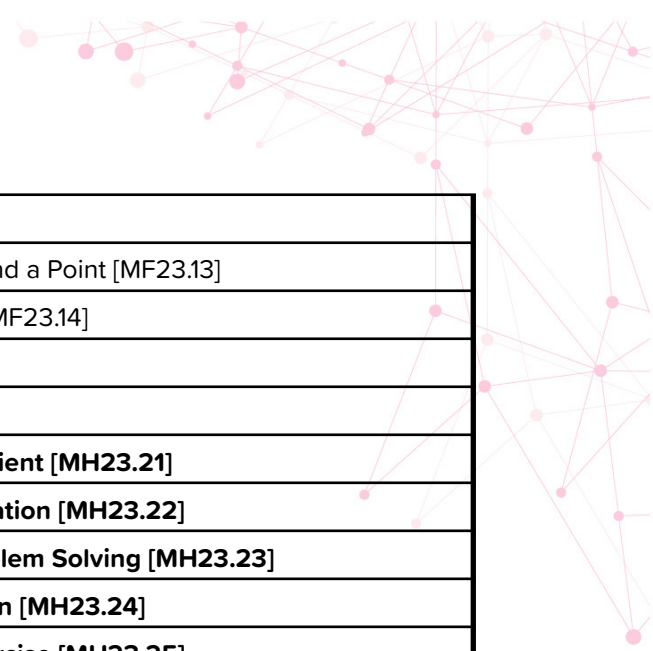


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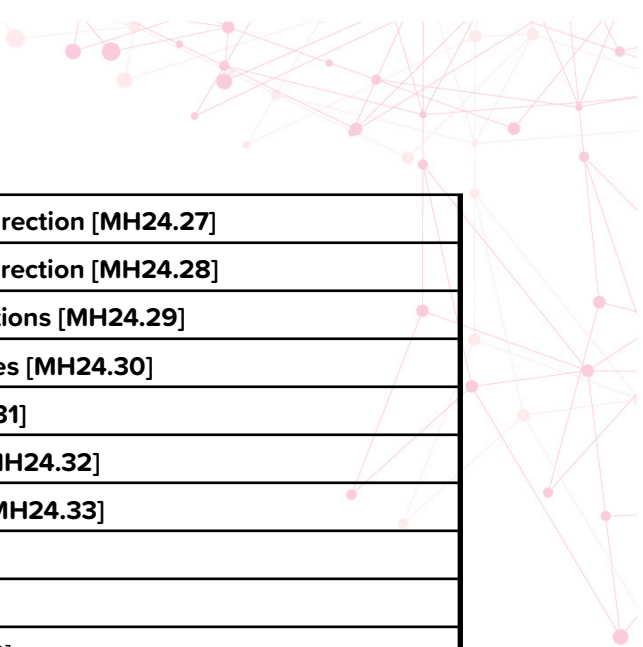




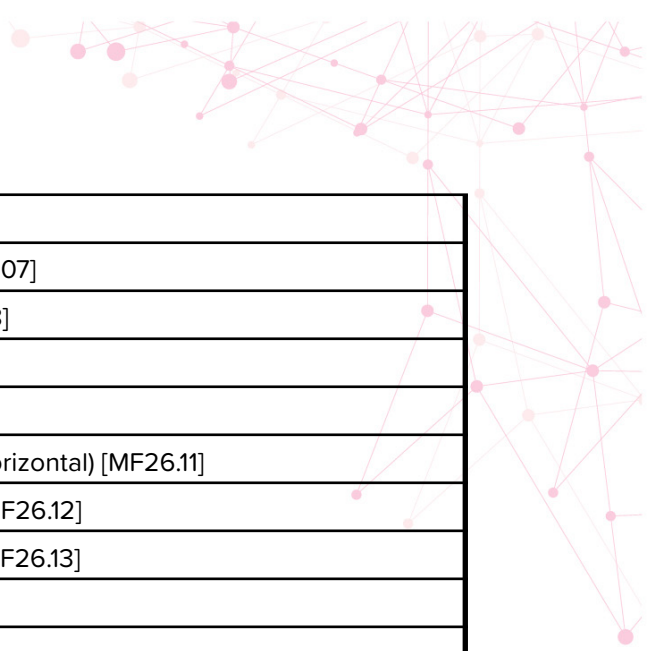
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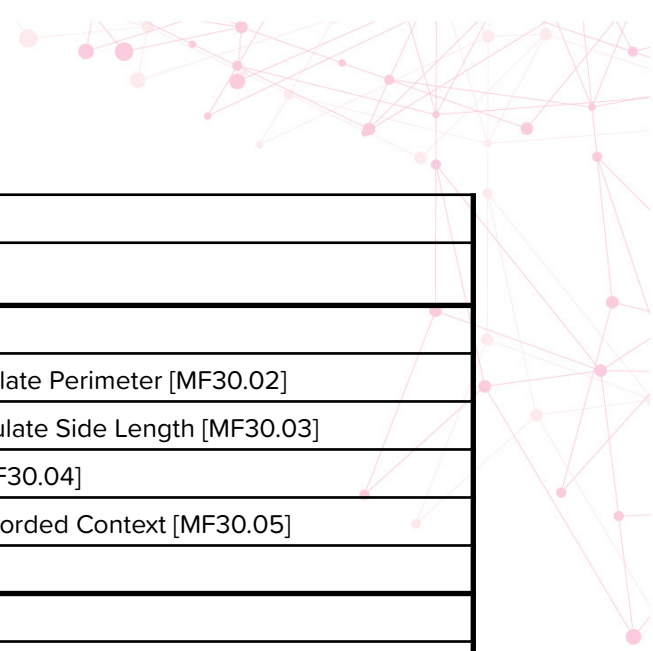
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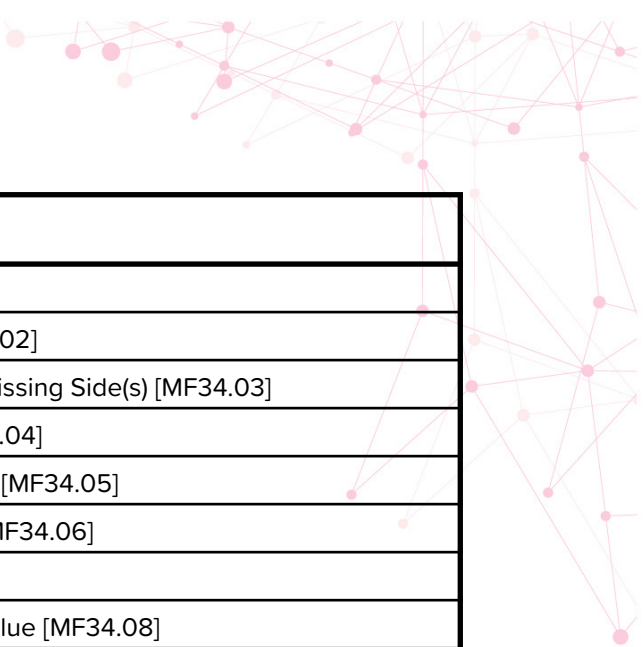
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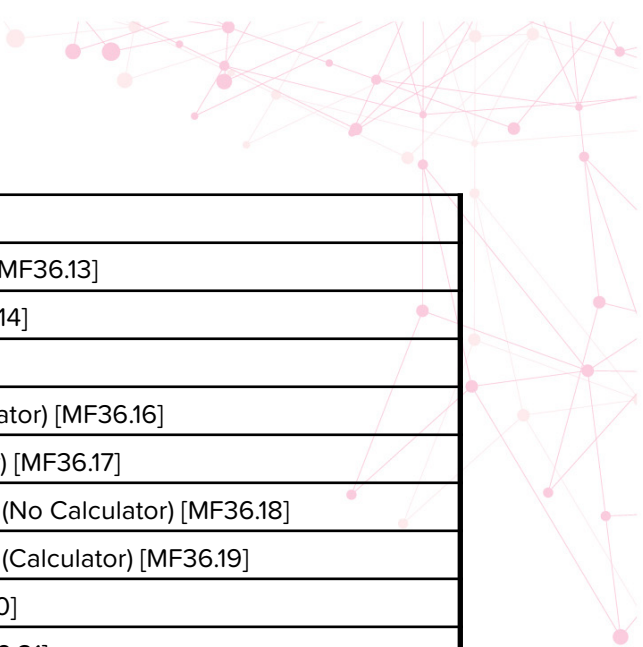
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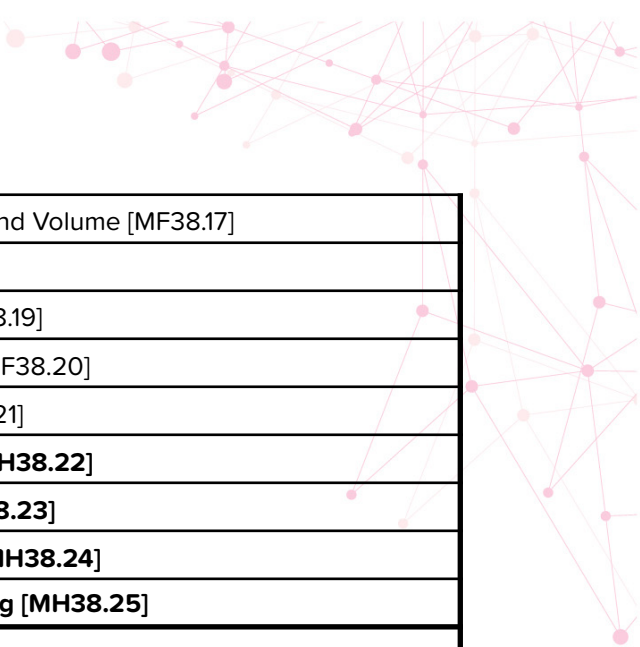
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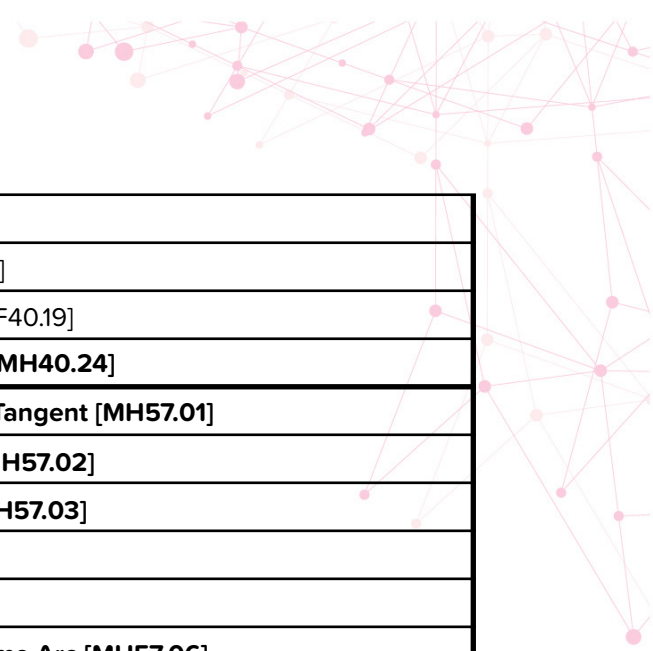


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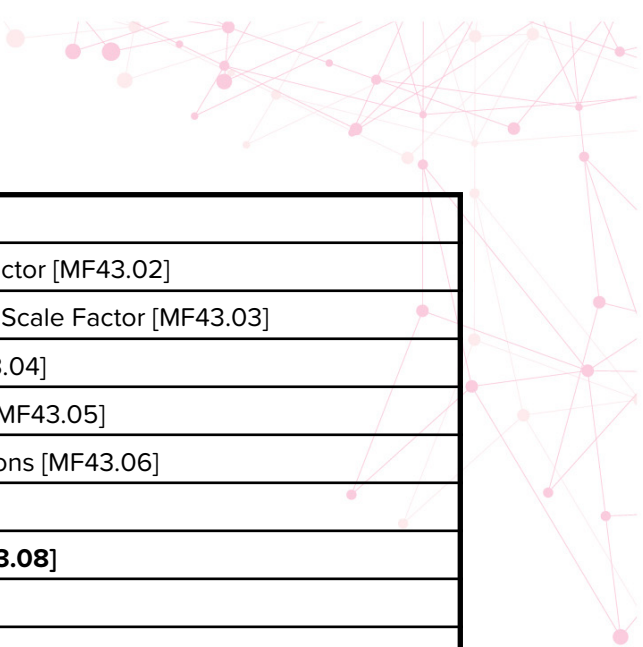


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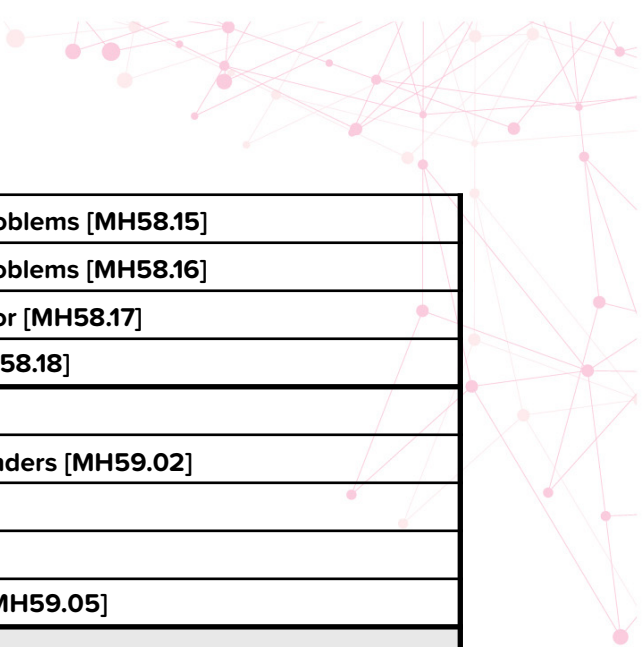




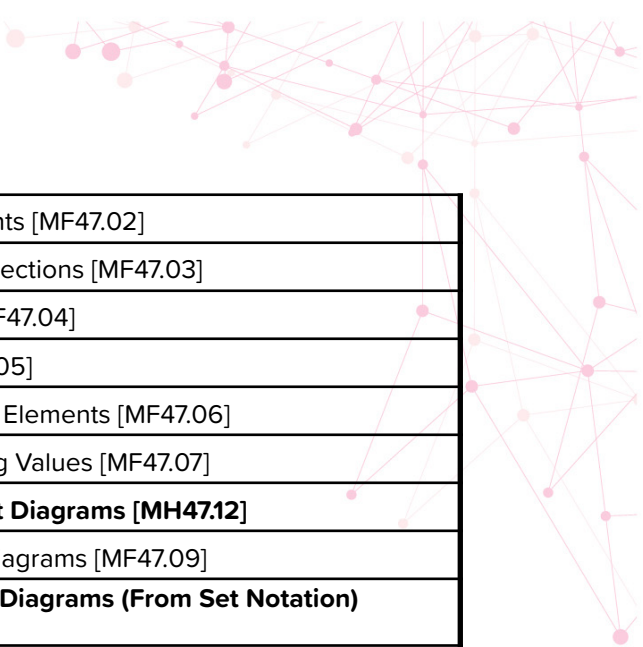
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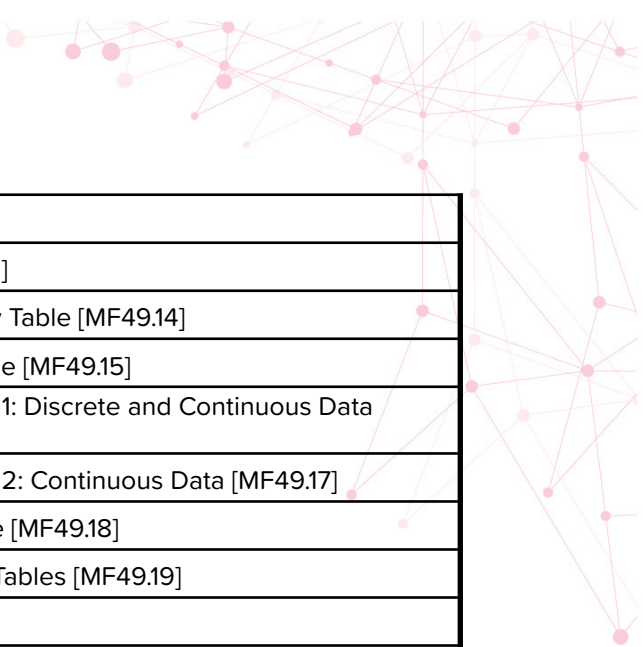
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	<b>Mixed Trigonometry 1 [MH58.14]</b>



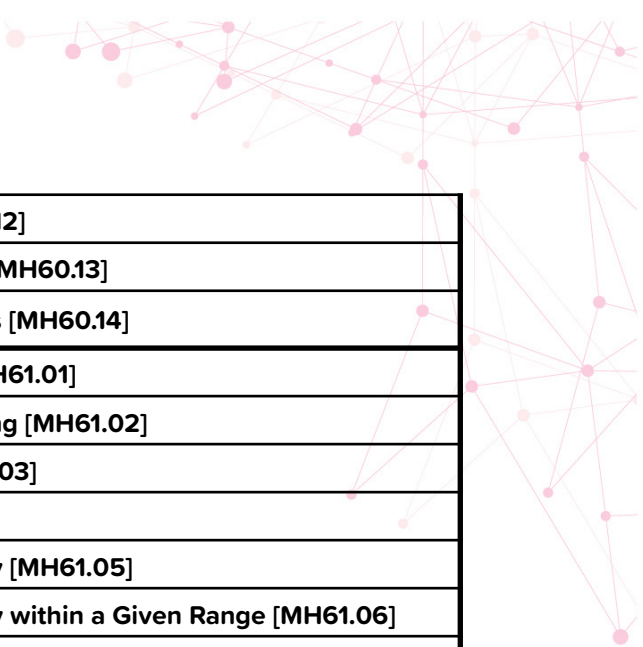
<b>Advanced Trigonometry (cont.)</b>	Mixed Trigonometry 2: Multi-Step Problems [MH58.15]
	Mixed Trigonometry 3: Multi-Step Problems [MH58.16]
	Mixed Trigonometry 4: Non-Calculator [MH58.17]
	Mixed Trigonometry 5: Bearings [MH58.18]
<b>3D Trigonometry</b>	3D Pythagoras 1: Cuboids [MH59.01]
	3D Pythagoras 2: Pyramids and Cylinders [MH59.02]
	3D SOH CAH TOA [MH59.03]
	3D Trigonometry [MH59.04]
	3D Trigonometry: Problem Solving [MH59.05]
<b>Probability</b>	
<b>Probability</b>	Probability Scale in Words [MF46.01]
	Probability Scale in Numbers [MF46.02]
	Calculating Probability [MF46.03]
	Mutually Exclusive Events [MF46.04]
	Two Way Tables: Probability [MF46.05]
	Listing Outcomes [MF46.06]
	<b>Product Rule for Counting [MH46.18]</b>
	Sample Spaces [MF46.07]
	Relative Frequency [MF46.08]
	Expected Frequency [MF46.09]
	Frequency Trees [MF46.10]
	Interpreting Frequency Trees [MF46.11]
	Multiplication Law of Probability (AND) [MF46.12]
	Addition Law of Probability (OR) [MF46.13]
	<b>Addition Law of Probability (General OR) [MH46.19]</b>
	Tree Diagrams 1: Completing Diagrams [MF46.14]
	Tree Diagrams 2: Calculating Probability of Single Outcome [MF46.15]
	Tree Diagrams 3: Calculating Probability of Multiple Outcomes [MF46.16]
	Tree Diagrams 4: AND/OR Statements (2 Branch Trees) [MF46.17]
	<b>Tree Diagrams 5: AND/OR Statements (3 Branch Trees) [MH46.20]</b>
	<b>Tree Diagrams 6: AND/OR Statements (No Tree Given) [MH46.21]</b>
	<b>Tree Diagrams 7: NOT Statements [MH46.22]</b>
	<b>Tree Diagrams 8: Reverse [MH46.23]</b>
<b>Tree Diagrams 9: Conditional Probability (Single Outcome) [MH46.24]</b>	
<b>Tree Diagrams 10: Conditional Probability (Multiple Outcomes) [MH46.25]</b>	
<b>Tree Diagrams 11: Conditional Probability (Problem Solving) [MH46.26]</b>	
<b>Tree Diagrams 12: Algebraic Expressions [MH46.27]</b>	
<b>Tree Diagrams 13: Solving Equations [MH46.28]</b>	
Sets and Venn Diagrams	Set Notation [MF47.01]



Sets and Venn Diagrams (cont.)	Elements in a Set 1: Identifying Elements [MF47.02]
	Elements in a Set 2: Unions and Intersections [MF47.03]
	Elements in a Set 3: Complements [MF47.04]
	Introduction to Venn Diagrams [MF47.05]
	Constructing Venn Diagrams 1: Listing Elements [MF47.06]
	Constructing Venn Diagrams 2: Writing Values [MF47.07]
	<b>Constructing Venn Diagrams 3: 3-Set Diagrams [MH47.12]</b>
	Interpreting Venn Diagrams 1: 2-Set Diagrams [MF47.09]
	<b>Interpreting Venn Diagrams 2: 3-Set Diagrams (From Set Notation) [MH47.13]</b>
	<b>Venn Diagrams: Complements [MH47.14]</b>
	<b>Venn Diagrams with Algebra [MH47.15]</b>
	Probabilities with Venn Diagrams 1: 2-Set Diagrams [MF47.10]
	Probabilities with Venn Diagrams 2: 2-Set Diagrams (A given B) [MF47.11]
	<b>Probabilities with Venn Diagrams 3: 3-Set Diagrams (From Set Notation) [MH47.16]</b>
	<b>Probabilities with Venn Diagrams 4: 3-Set Diagrams (Constructing) [MH47.17]</b>
	<b>Probabilities with Venn Diagrams 5: 3-Set Diagrams (A given B) [MH47.18]</b>
	Shading Venn Diagrams 1: 2-Set Diagrams (From Words) [MF47.08]
<b>Shading Venn Diagrams 2: 2-Set Diagrams (From Set Notation) [MH47.19]</b>	
<b>Shading Venn Diagrams 3: 3-Set Diagrams (From Set Notation) [MH47.20]</b>	
<b>Statistics</b>	
Collecting Data	Hypotheses, Primary Data and Secondary Data [MF48.01]
	Discrete and Continuous Data [MF48.02]
	Tally Chart [MF48.03]
	Questionnaires [MF48.04]
	Types of Random Sampling [MF48.05]
	Fair Samples [MF48.06]
	Grouped Tally Charts: Discrete and Continuous [MF48.07]
Analysing Data	Mode [MF49.01]
	Median [MF49.02]
	Mean 1: Positive Integers [MF49.03]
	Mean 2: Decimals and Negatives [MF49.04]
	Mean 3: Finding Missing Values [MF49.05]
	Mean 4: Changing Means [MF49.06]
	Range 1: Positive Integers [MF49.07]
	Range 2: Decimals and Negatives [MF49.08]
	Applying Averages and the Range 1: Raw Data [MF49.09]
	Mode from Frequency Table [MF49.10]
	Median from Frequency Table [MF49.11]



Analysing Data	Mean from Frequency Table [MF49.12]
	Range from Frequency Table [MF49.13]
	Modal Class from Grouped Frequency Table [MF49.14]
	Median from Grouped Frequency Table [MF49.15]
	Mean from Grouped Frequency Table 1: Discrete and Continuous Data [MF49.16]
	Mean from Grouped Frequency Table 2: Continuous Data [MF49.17]
	Range from Grouped Frequency Table [MF49.18]
	Applying Averages and the Range 2: Tables [MF49.19]
	Using Averages and Range [MF49.20]
	Using Averages and Range: Comparing Two Data Sets [MF49.21]
Displaying Data	Completing Two Way Tables [MF50.01]
	Interpreting Two Way Tables [MF50.02]
	Pictograms [MF50.03]
	Bar Charts [MF50.04]
	Multiple and Composite Bar Charts [MF50.05]
	Vertical Line Graphs [MF50.06]
	Creating Stem and Leaf Diagrams [MF50.07]
	Interpreting Stem and Leaf Diagrams [MF50.08]
	Creating Pie Charts (No Calculator) [MF50.09]
	Creating Pie Charts (Calculator) [MF50.10]
	Interpreting Pie Charts [MF50.11]
	Time Series Graphs [MF50.12]
	Drawing Scatter Graphs [MF50.13]
	Interpreting Scatter Graphs 1: Introduction [MF50.14]
	Interpreting Scatter Graphs 2: Outliers [MF50.15]
	Frequency Polygons: Drawing [MF50.16]
Frequency Polygons: Interpreting [MF50.17]	
Interpreting Misleading Data Representations [MF50.18]	
<b>Cumulative Frequency and Box Plots</b>	<b>Cumulative Frequency 1: Calculating [MH60.01]</b>
	<b>Cumulative Frequency 2: Drawing [MH60.02]</b>
	<b>Cumulative Frequency 3: Calculating Frequency [MH60.03]</b>
	<b>Cumulative Frequency 4: Finding Values [MH60.04]</b>
	<b>Cumulative Frequency 5: Median [MH60.05]</b>
	<b>Cumulative Frequency 6: Quartiles [MH60.06]</b>
	<b>Cumulative Frequency 7: Interquartile Range [MH60.07]</b>
	<b>Cumulative Frequency 8: Plot and Evaluate [MH60.08]</b>
	<b>Box Plots 1: Interpret [MH60.09]</b>
	<b>Box Plots 2: Finding Values to Plot [MH60.10]</b>
	<b>Box Plots 3: Draw from List [MH60.11]</b>

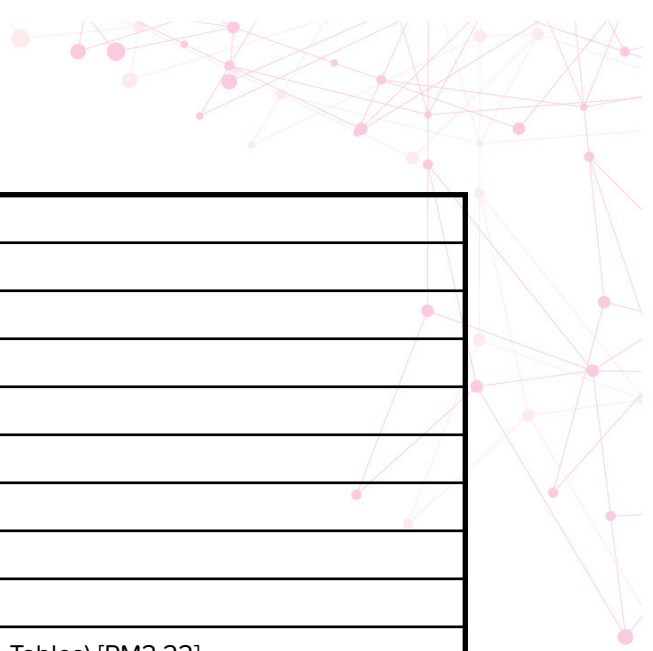


<b>Cumulative Frequency and Box Plots (cont.)</b>	<b>Box Plots 4: Draw from Data [MH60.12]</b>
	<b>Box Plots 5: Evaluate and Compare [MH60.13]</b>
	<b>Cumulative Frequency and Box Plots [MH60.14]</b>
<b>Histograms</b>	<b>Frequency Density 1: Calculating [MH61.01]</b>
	<b>Frequency Density 2: Problem Solving [MH61.02]</b>
	<b>Histograms 1: Choosing Axes [MH61.03]</b>
	<b>Histograms 2: Plotting [MH61.04]</b>
	<b>Histograms 3: Calculating Frequency [MH61.05]</b>
	<b>Histograms 4: Calculating Frequency within a Given Range [MH61.06]</b>
	<b>Histograms 5: Mixed Exercise (Consolidates 1-4) [MH61.07]</b>
	<b>Histograms 6: Finding Fractions and Percentages [MH61.08]</b>
	<b>Histograms 7: Finding Proportions [MH61.09]</b>
	<b>Histograms 8: Median [MH61.10]</b>
<b>Histograms 9: Mean [MH61.11]</b>	
<b>Histograms 10: Mixed Exercise (Consolidates 6-9) [MH61.12]</b>	

## Nuggets included in Mathematics - Secondary (Foundation+)

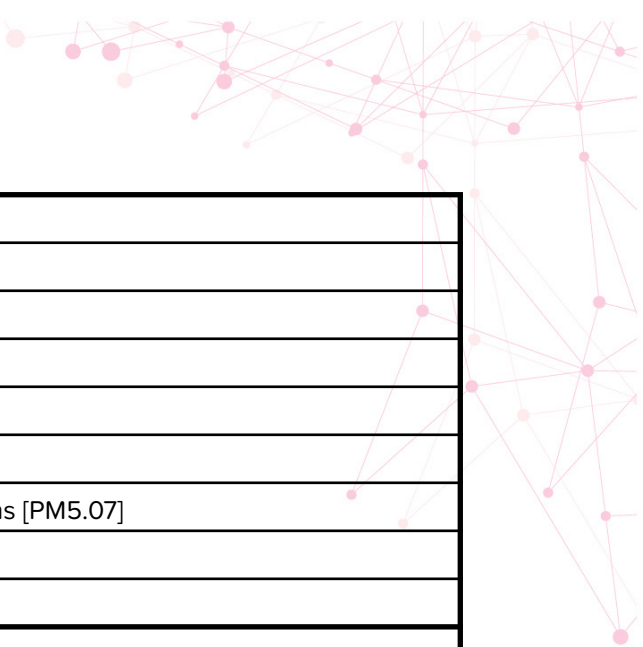
Foundation+ contains the same material as Foundation, in addition to the following nuggets from primary mathematics.

Strand	Nugget Names
Diagnostics Catch Up	Diagnostic: Essential Four Operations [MCU0.01]
	Diagnostic: Catch Up [MCU0.02]
	Diagnostic: Secondary Ready [MCU0.03]
<b>Number</b>	
Place Value Catch Up	Counting in Multiples of 2 [PM10.01]
	Counting in Multiples of 3 [PM10.02]
	Counting in Multiples of 4 [PM1.01]
	Counting in Multiples of 5 [PM10.03]
	Counting in Multiples of 8 [PM1.02]
	Counting in Multiples of 10 [PM10.04]
	Counting in Multiples of 50 [PM1.03]
	Counting in Multiples of 100 [PM1.04]
	Recognising Place Value [PM1.05]
	3-Digit: Representing Numbers up to 1000 [PM1.06]
	3-Digit: Finding 10 More or 10 Less [PM1.07]
	Finding 100 More or 100 Less [PM1.08]
Simple Arithmetic	Single Digit Addition [PM10.11]
	2 Digit Addition [PM10.12]
	Single Digit Subtraction [PM10.13]
	2 Digit Subtraction [PM10.14]
	3-Digit: Adding and Subtracting 1s [PM2.01]
	3-Digit: Adding and Subtracting 10s [PM2.02]
	3-Digit: Adding and Subtracting 100s [PM2.03]
	3-Digit: Column Addition (no Exchanging) [PM2.04]
	3-Digit: Column Addition (with Exchanging) [PM2.05]
	3-Digit: Column Subtraction (no Exchanging) [PM2.06]
	3-Digit: Column Subtraction (with Exchanging) [PM2.07]
	3-Digit: Addition and Subtraction Practice 1 [PM2.08]
	3-Digit: Addition and Subtraction Word Problems 1 [PM2.09]
Multiplication and Division	Multiplying by 2 [PM10.05]
	Multiplying by 3 [PM3.01]
	Multiplying by 4 [PM3.02]



Multiplication and Division (cont.)	Multiplying by 5 [PM10.06]
	Multiplying by 6 [PM3.17]
	Multiplying by 7 [PM3.18]
	Multiplying by 8 [PM3.03]
	Multiplying by 9 [PM3.19]
	Multiplying by 10 [PM10.07]
	Multiplying Multiples of 10 [PM3.09]
	Multiplying by 11 [PM3.20]
	Multiplying by 12 [PM3.21]
	Mixed Multiplication (Within the Times Tables) [PM3.22]
	Dividing by 2 [PM10.08]
	Dividing by 3 [PM3.05]
	Dividing by 4 [PM3.06]
	Dividing by 5 [PM10.09]
	Dividing by 6 [PM3.23]
	Dividing by 7 [PM3.24]
	Dividing by 8 [PM3.07]
	Dividing by 9 [PM3.25]
	Dividing by 10 [PM10.10]
	Dividing by 11 [PM3.26]
	Dividing by 12 [PM3.27]
	Mixed Division (Within the Times Tables) [PM3.28]
Dividing and Multiplying by 10 and 100 (Including Decimals) [PM4.12]	
Understanding Number	Comparing Numbers with Greater Than and Less Than Symbols $<>$ [PM1.09]
	Ordering Numbers Up to 1000 [PM1.10]
	Recognising Place Value in Decimals [PM1.21]
	Reading and Writing Numbers up to 1000 [PM1.11]
Working with Fractions	Identifying Fractions [PM4.01]
	Recognising a Half and a Quarter [MB1.21]
	Finding Unit Fractions of Amounts [PM4.06]
	Comparing and Ordering Fractions [PM4.03]
<b>Geometry and Measure</b>	
Introduction to Geometry	Identifying Lines [PM8.06]
	Lines of Symmetry [PM8.07]
	Identifying Angles [PM8.05]
2D Shapes	Identifying 2D Shapes [MA2.06]
	Describing 2D Shapes [PM8.01]
3D Shapes	Describing 3D Shapes [PM8.02]





Measure	Units of Measure [PM5.01]
	Length [PM5.02]
	Solving Length Problems [PM5.03]
	Mass and Weight [PM5.04]
	Solving Mass Problems [PM5.05]
	Volume and Capacity [PM5.06]
	Solving Volume and Capacity Problems [PM5.07]
	Perimeter by Counting [PM5.08]
	Calculating the Perimeter [PM5.09]
Time and Money	Units of Time [PM7.01]
	Times of Day [PM7.02]
	Telling the Time in Words [PM7.03]
	Telling the Time to the Nearest 5 Minutes [PM7.04]
	Money 2: Exam-Style Questions [MC2.05]
	Money 3: Coins and Notes Problems [MB2.01]
<b>Data</b>	
Displaying Data	Pictograms [PM9.01]
	Tables [PM9.02]
	Bar Charts [PM9.03]