

AQA GCSE MATHS SCHEME OF WORK

This customised scheme of work is designed to show how you can integrate EzyMaths into teachers lesson plans and help students independently study over the course of the academic year to support their in-class activities.

EZY MATHS

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SCHEME OF WORK

PLAN YOUR YEAR AHEAD

This customised scheme of work is designed to show how you can integrate EzyMaths into your lesson plans over the course of the academic year. For each section of the AQA Maths specification, the relevant course materials available on our platform are highlighted. For each activity there is a corresponding link attached, taking you to the relevant page on the platform, providing you have course access.



COURSE VIDEOS

Each topic area is supported by at least one lecture video. The videos utilise green screen technology to bring the topic to life and fasttrack learning outcomes.

——————————————————————————————————————	ctly halfway between hd —2? using the words below.		
Step 1: Use the number value halfway be	line to help you find the tween -3 and -2		•
-5 -4 -3 -2 -1	0 1 2 3 4 5	Types of Number	alway between -3 and -17 the number.
Step 2: Which of the fo	y between -3 and -2		0 L Z 3 4 5
Even number 🗶	Odd number 🗶		
Positive 🗶	Negative 🗶		- 10 40 C 1 3
and the second se			

ASSESSMENTS

Each topic area contains at least one automatically marked assessment which is designed to test students' understanding of what they have learnt through the videos and inclass activities.



GRADEBOOK

Individuals and class progress can be reviewed to identify learning gaps and provide instant reports. Work can then be set easily to improve learning outcomes.



SNAPSHOT VIDEOS

Videos that round up the key knowledge requirements of the main topic areas across the full course. The videos draw upon the key specification points that students need to know.





NUMBER SECTION

All of the content in this section of the scheme of work relates to Section 3.1: Number in the AQA GCSE Maths Specification

Specification Reference	EzyMaths Activity	Activity Link
 N1 order positive and negative integers, decimals and fractions use the symbols =, ≠, <, >, ≤, ≥ N2 understand and use place value (e.g. when working with very large or very small numbers, and when calculating with decimals) 	N1.1 – Types of Numbers	WATCH VIDED
	N1.1a – Types of Number	E TEST YOURSELF
	N1.1b – Types of Number	TEST YOURSELF
	N1.2 – Place Values	► WATCH VIDED
	N1.2a – Place Values	E TEST YOURSELF
	N1.2b – Place Values	TEST YOURSELF
	N1.3 – Number Lines	WATCH VIDED
	N1.3a – Number Lines	TEST YOURSELF
	N1.3b – Number Lines	

Specification Reference	EzyMaths Activity	Activity Link
	N3.1.1 - Addition	► WATCH VIDED
	N.3.1.2 - Subtraction	► WATCH VIDED
N2 apply the four operations, including formal written methods, to integers, decimals and simple fractions	N3.1.3 – Negative Numbers	► WATCH VIDED
(proper and improper), and mixed numbers – all both positive and negative	N3.1a – Addition and Subtraction	E TEST YOURSELF
Notes: including questions set in context.	N3.1b – Addition and Subtraction	E TEST YOURSELF
Knowledge and understanding of terms used in household finance, for example profit, loss, cost price, selling price, debit, credit, balance, income tax, VAT and interest rate	N3.2.1 - Multiplication	► WATCH VIDED
	N3.2.2 – Multiplication of Negative Numbers	► WATCH VIDED
	N3.2a – Multiplication	E TEST YOURSELF
	N3.2b – Multiplication	TEST YOURSELF

Specification Reference	EzyMaths Activity	Activity Link
N2 apply the four operations, including formal written methods to integers decimals and simple fractions	N3.3.1 - Division	WATCH VIDEO
(proper and improper), and mixed numbers – all both positive and negative	N.3.3.2 – Division of Negative Numbers	► WATCH VIDED
Notes: including questions set in context. Knowledge and understanding of terms used in	N3.3a – Division	TEST YOURSELF
 household finance, for example profit, loss, cost price, selling price, debit, credit, balance, income tax, VAT and interest rate. recognise and use relationships between operations, including inverse operations (e.g. cancellation to simplify calculations and expressions) 	N3.36 – Division	E TEST YOURSELF
	N3.4 - BIDMAS	WATCH VIDED
	N3.4a - BIDMAS	TEST YOURSELF
use conventional notation for priority of operations, including brackets, powers, roots and reciprocals	N3.4B – BIDMAS	E TEST YOURSELF

STRUCTURE AND CALCULATION

Specification Reference	EzyMaths Activity	Activity Link
	N4.1.1 – Adding Fractions	► WATCH VIDED
 N2 apply the four operations, including formal written methods, to integers, decimals and simple fractions (proper and improper), and mixed numbers – all both positive and negative Notes: including questions set in context. Knowledge and understanding of terms used in household finance, for example profit, loss, cost price, selling price, debit, credit, balance, income tax, VAT and interest rate 	N.4.1.2 – Adding Mixed Numbers	WATCH VIDED
	N4.1a – Adding Fractions	E TEST YOURSELF
	N4.1b – Adding Fractions	E TEST YOURSELF
	N4.1c – Adding Fractions	E TEST YOURSELF
	N4.2.1 – Subtracting Fractions	► WATCH VIDED
	N4.2.2 – Subtracting Mixed Numbers	► WATCH VIDED
	N4.2a – Subtracting Fractions	TEST YOURSELF
	N4.2b – Subtracting Fractions	E TEST YOURSELF

TOPIC 1	STRUCTURE AND CALCULATION		
Specification Reference		EzyMaths Activity	Activity Link
		N4.3 – Multiplying Fractions	WATCH VIDED
 N2 apply the four operations, including formal written methods, to integers, decimals and simple fractions (proper and improper), and mixed numbers – all both positive and negative Notes: including questions set in context. Knowledge and understanding of terms used in household finance, for example profit, loss, cost price, selling price, debit, credit, balance, income tax, VAT and interest rate. 		N4.3a – Multiplying Fractions	E TEST YOURSELF
		N4.3b – Multiplying Fractions	E TEST YOURSELF
		N4.4 – Dividing Fractions	► WATCH VIDED
		N4.4a – Dividing Fractions	≢ TEST YOURSELF
		N4.4b – Dividing Fractions	E TEST YOURSELF

Specification Reference	EzyMaths Activity	Activity Link
	N5.1 - Prime Numbers	► WATCH VIDED
	N5.1a - Prime Numbers	TEST YOURSELF
	N5.2 - Factors	► WATCH VIDED
 N4 use the concepts and vocabulary of prime numbers, factors (divisors), multiples, common factors, common multiples, highest common factor, lowest common multiple, prime factorisation, including using product notation and the unique factorisation theorem Notes: prime factor decomposition including product of prime factors written in index form. 	N5.2a – Factors	TEST YOURSELF
	N5.3 - Unique Factorisation Theorem	► WATCH VIDED
	N5.3a - Unique Factorisation Theorem	TEST YOURSELF
	N5.3b - Unique Factorisation Theorem	E TEST YOURSELF
	N5.4 - Highest Common Factor	► WATCH VIDED
	N5.4a - Highest Common Factor	E TEST YOURSELF
	N5.4b - Highest Common Factor	E TEST YOURSELF

STRUCTURE AND CALCULATION TOPIC 1 EzyMaths Activity Activity Link **Specification Reference** WATCH VIDEO N5.5 - Multiples N5.5a – Multiples Assessment **TEST YOURSELF** N4 use the concepts and vocabulary of prime numbers, factors (divisors), multiples, common factors, common multiples, highest common factor, lowest common multiple, prime factorisation, including using product notation and N5.6 – Lowest Common Multiple WATCH VIDEO the unique factorisation theorem Notes: prime factor decomposition including product of prime factors written in index form. **TEST YOURSELF** N5.6a – Lowest Common Multiple N5.6b – Lowest Common Multiple **TEST YOURSELF**

STRUCTURE AND CALCULATION

NG use positive integer powers and associated real roots (square, cube and higher), recognise powers of 2, 3, 4, 5 estimate powers and roots of any given positive number

Specification Reference

Notes: including square numbers up to 15×15 Students should know that $1000=10^3$ and 1 million = 10^6

EzyMaths Activity	Activity Link
N6.1 – Positive Powers	► WATCH VIDED
N6.1a – Positive Powers Assessment	E TEST YOURSELF
NG.1b – Positive Powers Assessment	E TEST YOURSELF
N6.2 – Negative Powers	► WATCH VIDED
N6.2a – Negative Powers Assessment	E TEST YOURSELF
N6.2b – Negative Powers Assessment	E TEST YOURSELF
N6.3 - Roots	► WATCH VIDED
N6.3a – Roots Assessment	E TEST YOURSELF
NG.3b – Roots Assessment	E TEST YOURSELF
N6.4 – Powers of 10	► WATCH VIDED
NG.4a – Powers of 10 Assessment	E TEST YOURSELF

	Specification Reference	EzyMaths Activity	Activity Link
		N6.5 – Fractional Powers	WATCH VIDED
N17		N6.5a – Fractional Powers	E TEST YOURSELF
	calculate with fractional indices	N6.5b – Fractional Powers	TEST YOURSELF
	N6.6.1 – Simplifying Surds	► WATCH VIDED	
Nă	calculate exactly with fractions calculate exactly with multiples of π	N6.6.2 – Expanding Brackets with Surds	WATCH VIDED
	calculate exactly with surds	N6.6a – Simplifying Surds	E TEST YOURSELF
simplify surd expressions involving squares	N6.6b – Simplifying Surds	TEST YOURSELF	
	$g\sqrt{12}=\sqrt{4\times 3}=\sqrt{4\times \sqrt{3}}=2\sqrt{3}$) and rationalise denominators	N6.7 – Rationalising Denominators	WATCH VIDED
		N6.7a – Rationalising Denominators	E TEST YOURSELF

STRUCTURE AND CALCULATION

N9 calculate with and interpret standard form A × 10n, where 1≤A<10 and n is an integer
 Notes: with and without a calculator.
 Interpret calculator displays.

Specification Reference

EzyMaths Activity	Activity Link
N8.1 – Introduction to Standard Form	WATCH VIDED
N8.1a – Introduction to Standard Form	TEST YOURSELF
N8.2 - Standard Form with Positive Powers	► WATCH VIDED
N8.2a - Standard Form with Positive Powers	TEST YOURSELF
N8.2b - Standard Form with Positive Powers	TEST YOURSELF
N8.3 - Standard Form with Negative Powers	WATCH VIDED
N8.3a - Standard Form with Negative Powers	TEST YOURSELF
N8.3b - Standard Form with Negative Powers	TEST YOURSELF

Specification Reference	EzyMaths Activity	Activity Link
	N8.4 - Adding and Subtracting Standard Form	► WATCH VIDED
	N8.4a - Adding and Subtracting Standard Form	E TEST YOURSELF
 N9 calculate with and interpret standard form A × 10n, where 1≤A<10 and n is an integer Notes: with and without a calculator. Interpret calculator displays. 	N8.4b - Adding and Subtracting Standard Form	E TEST YOURSELF
	N8.5 - Multiplying and Dividing Standard Form	► WATCH VIDED
	N8.5a - Multiplying and Dividing Standard Form	TEST YOURSELF
	N8.5b - Multiplying and Dividing Standard Form	TEST YOURSELF
	N8.6 - Standard Form Problems	► WATCH VIDED
	N8 6a - Standard Form Problems	TEST YOURSELF

FRACTIONS, DECIMALS AND PERCENTAGES TOPIC 2 **Specification Reference** EzyMaths Activity Activity Link WATCH VIDEO N2.1 - Introduction to Fractions TEST YOURSELF žΞ N2.1a - Introduction to Fractions WATCH VIDED N2.2 - Simplifying Fractions NID work interchangeably with terminating decimals and their corresponding fractions (such as 3.5 and 72 or 0.375 **TEST YOURSELF** N2.2a - Simplifying Fractions ž and 38) TEST YOURSELF N2.2b - Simplifying Fractions ž change recurring decimals into their corresponding fractions and vice versa WATCH VIDED N2.3 - Improper Fractions and Mixed Numbers ž TEST YOURSELF N2.3a - Improper Fractions and Mixed Numbers TEST YOURSELF N2.3b - Improper Fractions and Mixed Numbers

TOPIC 2FRACTIONS, DECIMALS AND PERCENTAGES

Specification Reference	EzyMaths Activity	Activity Link
	N2.4 - Converting Decimals into Fractions	► WATCH VIDED
	N2.4a - Converting Decimals into Fractions	E TEST YOURSELF
	N2.4b - Converting Decimals into Fractions	E TEST YOURSELF
NIO work interchangeably with terminating decimals and their corresponding fractions (such as 3.5 and 72 or 0.375 and 38) change recurring decimals into their corresponding	N2.5 - Converting Fractions into Decimals	WATCH VIDED
	N2.5a - Converting Fractions into Decimals	
	N2.5b - Converting Fractions into Decimals	E TEST YOURSELF
	N2.6 - Ordering Fractions and Decimals	WATCH VIDED
Notes: including ordering.	N2.6a - Ordering Fractions and Decimals	E TEST YOURSELF
	N2.6b - Ordering Fractions and Decimals	E TEST YOURSELF
	N2.7 - Converting Recurring Decimals	► WATCH VIDED
	N2.7a - Converting Recurring Decimals	E TEST YOURSELF

N2.7b - Converting Recurring Decimals

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TOPIC 3MEASURES AND ACCURACYSpecification ReferenceEzyMaths ActivityN9.1 - Using UnitsActivity Link

NI3 use standard units of mass, length, time, money and other measures (including standard compound measures) using decimal quantities where appropriate

EzyMaths Activity	Activity Link
N9.1 – Using Units	► WATCH VIDED
N9.1a – Using Units	E TEST YOURSELF
N9.2 - Mass	► WATCH VIDED
N9.2a - Mass	E TEST YOURSELF
N9.3 - Length	► WATCH VIDED
N9.3a - Length	E TEST YOURSELF
N9.4 – Area and Volume	► WATCH VIDED
N9.4a – Area and Volume	E TEST YOURSELF
N9.5 - Time	► WATCH VIDED
N9.5a - Time	E TEST YOURSELF
N9.6 - Money	► WATCH VIDED
N9.6a - Money	E TEST YOURSELF

MEASURES AND ACCURACY

Specification Reference	EzyMaths Activity	Activity Link
N14 estimate answers	N7.1 - Place Value Rounding	WATCH VIDED
check calculations using approximation and estimation, including answers obtained using technology	N7.1a - Place Value Rounding	TEST YOURSELF
5 round numbers and measures to an appropriate degree of accuracy (e.g. to a specified number of decimal places or significant figures)	N7.1b - Place Value Rounding	TEST YOURSELF
	N7.2 - Decimal Places	► WATCH VIDED
use inequality notation to specify simple error intervals due to truncation or rounding	N7.2a - Decimal Places	E TEST YOURSELF
Notes: including appropriate rounding for questions set in context. Students should know not to round values during	N7.2b - Decimal Places	TEST YOURSELF
	N7.3 – Significant Figures	► WATCH VIDED
intermediate steps of a calculation.	N7.3a – Significant Figures	E TEST YOURSELF
lower bounds	N7.3b – Significant Figures	TEST YOURSELF

MEASURES AND ACCURACY

Specification Reference	EzyMaths Activity	Activity Link
N14 estimate answers	N7.4 – Error Intervals	WATCH VIDED
check calculations using approximation and estimation, including answers obtained using technology	N7.4a - Error Intervals	E TEST YOURSELF
N15 round numbers and measures to an appropriate degree of	N7.4b - Error Intervals	TEST YOURSELF
significant figures)	N7.5 - Limits of Accuracy Problems	► WATCH VIDED
use inequality notation to specify simple error intervals due to truncation or rounding	N7.5a - Limits of Accuracy Problems	E TEST YOURSELF
Notes: including appropriate rounding for questions	N7.5b - Limits of Accuracy Problems	E TEST YOURSELF
set in context. Students should know not to round values during	N7.6 - Using Approximation to Estimate	WATCH VIDED
intermediate steps of a calculation.	N7.6a - Using Approximation to Estimate	E TEST YOURSELF
NID apply and interpret limits of accuracy including upper and lower bounds	N7.6b - Using Approximation to Estimate	TEST YOURSELF

REVISION MATERIALS

NUMBER

Alongside our scheme of work, we have a collection of different resources to help you recap all the core themes and topics from this Section. These materials can be used at the end of teaching of this section and can be revisited at later dates to refresh your understanding of these topics before an in-class test, mock exam or a summer examination.

SNAPSHOT VIDEOS





Watch 19 recap videos that re-visit the main elements of the main topic areas.

CLICK HERE TO WATCH VIDEOS

END OF SECTION ASSESSMENT





Attempt a comprehensive 30-question assessment testing you on each topic in this section.

CLICK HERE TO ATTEMPT ESA





ALGEBRA & GRAPHS SECTION

All of the content in this section of the scheme of work relates to Section 3.2 and 3.3 in the AQA GCSE Maths Specification

NOTATION, VOCABULARY AND MANIPULATION

Specification Reference	EzyMaths Activity	Activity Link
use and interpret algebraic notation, including:	A1.1 – Algebraic Notation	► WATCH VIDED
ab in place of a×b 3y in place of y+y+y and 3×y	A1.1a – Algebraic Notation	E TEST YOURSELF
a ² in place of a×a , a ³ in place of a×a×a , a ² b in place of a×a×b	A1.1b – Algebraic Notation	E TEST YOURSELF
ab in place of a+b	A1.2 – Introduction to Formulae	► WATCH VIDED
Notes: it is expected that answers will be given in their	A1.2a – Introduction to Formulae	E TEST YOURSELF
simplest form without an explicit instruction to do so.	A1.3 – Using Formulae	► WATCH VIDED
2 substitute numerical values into formulae and expressions, including scientific formulae	A1.3a – Using Formulae	E TEST YOURSELF
A3 understand and use the concepts and vocabulary of expressions, equations, formulae, inequalities, terms and	A1.3b – Using Formulae	E TEST YOURSELF
factors	A1.3c – Using Formulae	E TEST YOURSELF

NOTATION, VOCABULARY AND MANIPULATION

A2.2c – Basic Laws of Indices

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Specification Reference	EzyMaths Activity	Activity Link
	A2.1 - Collecting Like Terms	► WATCH VIDED
	A2.1a - Collecting Like Terms	E TEST YOURSELF
A4 simplify and manipulate algebraic expressions (including those involving surds and algebraic fractions) by:	A2.1b - Collecting Like Terms	TEST YOURSELF
collecting like terms multiplying a single term over a bracket taking out common factors	A2.1c - Collecting Like Terms	TEST YOURSELF
	A2.2.1 – Basic laws of Indices	► WATCH VIDED
simplifying expressions involving sums, products and powers, including the laws of indices	A2.2.2 – Special Indices	WATCH VIDED
expanding products of two or more binomial factorising quadratic expressions of the form ax ² +bx+c	A2.2a – Basic Laws of Indices	E TEST YOURSELF
	A2.2b – Basic Laws of Indices	E TEST YOURSELF

NOTATION, VOCABULARY AND MANIPULATION

Specification Reference	EzyMaths Activity	Activity Link
	A2.3.1 – Negative Indices	► WATCH VIDED
	A2.3.2 – Fractional Indices	► WATCH VIDED
A4 simplify and manipulate algebraic expressions (including those involving surds and algebraic fractions) by:	A2.3.3 – Negative Fractional Indices	► WATCH VIDED
collecting like terms multiplying a single term over a bracket taking out common factors	A2.3a – Negative Indices	E TEST YOURSELF
	A2.3b – Negative Indices	E TEST YOURSELF
simplifying expressions involving sums, products and powers, including the laws of indices	A2.4 – Multiplying over a Single Bracket	► WATCH VIDED
expanding products of two or more binomial factorising quadratic expressions of the form ax ² +bx+c	A2.4a – Multiplying over a Single Bracket	E TEST YOURSELF
	A2.4b – Multiplying over a Single Bracket	E TEST YOURSELF

A2.4c – Multiplying over a Single Bracket

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NOTATION, VOCABULARY AND MANIPULATION

A4.4b - Difference of two Squares

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Specification Reference	EzyMaths Activity	Activity Link
	A2.5.1 – Expanding Brackets	► WATCH VIDED
A4 simplify and manipulate algebraic expressions (including	A2.5.2 – Expanding Brackets (Box Method)	► WATCH VIDED
	A2.5a – Expanding Brackets	E TEST YOURSELF
those involving surds and algebraic tractions) by: collection like terms	A2.5b – Expanding Brackets	E TEST YOURSELF
multiplying a single term over a bracket taking out common factors simplifying expressions involving sums, products and powers, including the laws of indices expanding products of two binomials factorising quadratic expressions of the form x ² +bx+c, including the difference of two squares	A2.5c – Expanding Brackets	E TEST YOURSELF
	A2.6 – Taking Out Common Factors	► WATCH VIDED
	A2.6a – Taking Out Common Factors	TEST YOURSELF
	A2.6b – Taking Out Common Factors	E TEST YOURSELF
	A4.4 - Difference of two Squares	► WATCH VIDED
	A4.4a - Difference of two Squares	E TEST YOURSELF

NOTATION, VOCABULARY AND MANIPULATION

A5 understand and use standard mathematical formulae rearrange formulae to change the subject

Specification Reference

Notes: including use of formulae from other subjects in words and using symbols.

EzyMaths Activity	Activity Link
A1.4.1 - Changing the Subject of the Formula	WATCH VIDEO
A1.4.2 - Changing the Subject of the Formula Involving Factorisation	WATCH VIDED
A1.4a - Changing the Subject of the Formula	E TEST YOURSELF
A1.4b - Changing the Subject of the Formula	E TEST YOURSELF
A1.4c - Changing the Subject of the Formula	E TEST YOURSELF

TOPIC 1 NOTATION, VOCABULARY AND MANIPULATION

Specification Reference	EzyMaths Activity	Activity Link
	A7.1 – Introduction to Functions	WATCH VIDED
where appropriate, interpret simple expressions as functions with inputs and outputs	A7.1a – Introduction to Functions	TEST YOURSELF
interpret the reverse process as the 'inverse function'	A7.2 – Using Functions	WATCH VIDED
function'	A7.2a – Using Functions	TEST YOURSELF
Notes: understanding and use of f(x) , fg(x) and f ⁻¹ (x) notation is expected at Higher tier.	A7.2b – Using Functions	E TEST YOURSELF

A7.2c – Using Functions

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NOTATION, VOCABULARY AND MANIPULATION

	Specification Reference	EzyMaths Activity	Activity Link
		A7.3 – Inverse Functions	WATCH VIDED
A7 where appropriate, interp functions with inputs and interpret the reverse pro interpret the succession	7 where appropriate, interpret simple expressions as functions with inputs and outputs	A7.3a – Inverse Functions	E TEST YOURSELF
		A7.3b – Inverse Functions	E TEST YOURSELF
	interpret the reverse process as the 'inverse function' interpret the succession of two functions as a 'composite function'	A7.3c – Inverse Functions	E TEST YOURSELF
	Notes: understanding and use of f(x) , fg(x) and f ⁻¹ (x) notation is expected at Higher tier.	A7.4 – Composite Functions	WATCH VIDED
		A7.4a – Composite Functions	E TEST YOURSELF
		A7.4b – Composite Functions	TEST YOURSELF

TOPIC 2	GRAPHS		
Specification Reference	e	EzyMaths Activity	Activity Link
A8 work with coordinates in all four quadrants	GR1.1 – Plotting Coordinates	WATCH VIDED	
	GR1.1a – Plotting Coordinates	E TEST YOURSELF	
	GR1.1b – Plotting Coordinates	₹ TEST YOURSELF	
	GR1.2 – Plotting Shapes Using Coordinates	WATCH VIDED	
	GR1.2a – Plotting Shapes Using Coordinates	E TEST YOURSELF	
	GR1.2a – Plotting Shapes Using Coordinates	TEST YOURSELF	

	Specification Reference	EzyMaths Activity	Activity Link
		GR2.1 – Basic Graphs	WATCH VIDED
A9	nlot graphs of equations that correspond to straight-line	GR2.1a – Basic Graphs	E TEST YOURSELF
	graphs in the coordinate plane	GR2.1b – Basic Graphs	E TEST YOURSELF
	use the form y=mx+c to identify parallel lines	GR2.2 – Equation of a Straight Line	► WATCH VIDED
	tind the equation of the line through two given points, or through one point with a given gradient	GR2.2a – Equation of a Straight Line	E TEST YOURSELF
	use the form y=mx+c to identify perpendicular lines	GR2.2b – Equation of a Straight Line	E TEST YOURSELF
A10	identify and interpret gradients and intercepts of linear	GR2.3 - Finding the Equation of a Straight Line from Coordinates	► WATCH VIDED
	functions graphically and algebraically	GR2.3a - Finding the Equation of a Straight Line from Coordinates	₹ TEST YOURSELF
		GR2.3b - Finding the Equation of a Straight Line from Coordinates	E TEST YOURSELF

	Specification Reference	EzyMaths Activity	Activity Link
		GR2.4 – Midpoints	► WATCH VIDED
EA	plot graphs of equations that correspond to straight-line graphs in the coordinate plane	GR2.4a – Midpoints	TEST YOURSELF
		GR2.4b – Midpoints	E TEST YOURSELF
	use the form y=mx+c to identify parallel lines find the equation of the line through two given points, or through one point with a given gradient	GR2.5 – Parallel Lines	► WATCH VIDED
		GR2.5a – Parallel Lines	E TEST YOURSELF
A10	use the form y=mx+c to identify perpendicular lines	GR2.5b – Parallel Lines	E TEST YOURSELF
) identify and interpret gradients and intercepts of linear functions graphically and algebraically	GR2.6 – Perpendicular Lines	► WATCH VIDED
		GR2.6a – Perpendicular Lines	E TEST YOURSELF
		GR2.6b – Perpendicular Lines	TEST YOURSELF

	Specification Reference	EzyMaths Activity	Activity Link
A 11	identify and interpret roots, intercepts and turning points of quadratic functions graphically	GR3.1 – Quadratic Graphs	► WATCH VIDED
A12	daduca conte algabraically	GR3.1a – Quadratic Graphs	E TEST YOURSELF
	deduce turning points by completing the square	GR3.1b – Quadratic Graphs	E TEST YOURSELF
		GR3.2 – Cubic Graphs	► WATCH VIDED
	recognise, sketch and interpret graphs of linear functions and quadratic functions	GR3.2a – Cubic Graphs	E TEST YOURSELF
	including simple cubic functions and the reciprocal function $y=\frac{1}{X}$ with $x\neq 0$	GR3.2b – Cubic Graphs	E TEST YOURSELF
		GR3.3 – Maximum and Minimum Points	► WATCH VIDED
	including exponential functions y=kx for positive values of k, and the trigonometric functions (with arguments in degrees) y=sinx , y=cosx and y=tanx for angles of any size	GR3.3a – Maximum and Minimum Points	E TEST YOURSELF
		GR3.3b – Maximum and Minimum Points	E TEST YOURSELF

Specification Reference	EzyMaths Activity	Activity Link
1 identify and interpret roots, intercepts and turning points of quadratic functions graphically	GR4.1.1 – Reciprocal Graphs	WATCH VIDED
deduce roots algebraically	GR4.1.2 – Exponential Graphs	► WATCH VIDED
deduce turning points by completing the square	GR4.1a - Reciprocal and Exponential Graphs	TEST YOURSELF
cognise, sketch and interpret graphs of linear functions	GR4.1b - Reciprocal and Exponential Graphs	E TEST YOURSELF
and quadratic functions	GR4.2.1 - Deriving the Trigonometric Graphs	► WATCH VIDED
including simple cubic functions and the reciprocal function $y=\frac{1}{x}$ with $x\neq 0$	GR4.2.2 - Using Trigonometric Graphs	► WATCH VIDED
including exponential functions y=kx for positive values of	GR4.2a - Trigonometric Graphs	TEST YOURSELF
and the trigonometric functions (with arguments in egrees) y=sinx , y=cosx and y=tanx for angles of any size	GR4.2b - Trigonometric Graphs	TEST YOURSELF

TOPIC 2	GRAPHS	
Specification Reference	EzyMaths Activity	Activity Link
	GR5.1.1 - Translations	WATCH VIDED
A13 sketch translations and reflections of a given function A14 plot and interpret graphs, and graphs of non-standard functions in real contexts, to find approximate solutions to problems such as simple kinematic problems involving distance, speed and acceleration	GR5.1.2 - Reflections	WATCH VIDED
	GR5.1a – Translations and Reflections	E TEST YOURSELF
	GR5.1b – Translations and Reflections	E TEST YOURSELF
including exponential graphs	GR5.2 – Using Graphs to Find Solutions	WATCH VIDED
	GR5.2a – Using Graphs to Find Solutions	TEST YOURSELF

TOPIC 2	GRAPHS	
Specification Reference	EzyMaths Activity	Activity Link
	GR5.3.1 - Estimating Gradients	WATCH VIDED
A15 calculate or estimate gradients of graphs and areas under graphs (including quadratic and other non-linear graphs),	GR5.3.2 - Estimating the Area Under a Graph	WATCH VIDEO
and interpret results in cases such as distance-time graphs, velocity-time graphs and graphs in financial contexts	GR5.3a - Estimating Gradients and Areas	TEST YOURSELF
	GR5.3b - Estimating Gradients and Areas	TEST YOURSELF

GRAPHS

AI5 calculate or estimate gradients of graphs and areas under graphs (including quadratic and other non-linear graphs), and interpret results in cases such as distance-time graphs, velocity-time graphs and graphs in financial contexts

Specification Reference

EzyMaths Activity	Activity Link		
GR6.1 – Distance-Time Graphs	► WATCH VIDED		
GR6.1a – Distance-Time Graphs	E TEST YOURSELF		
GR6.1b – Distance-Time Graphs	E TEST YOURSELF		
GR6.2 – Velocity-Time Graphs	► WATCH VIDED		
GR6.2a – Velocity-Time Graphs	TEST YOURSELF		
GR6.2b – Velocity-Time Graphs	E TEST YOURSELF		
GR6.3 – Financial Graphs	WATCH VIDED		
GR6.3a – Financial Graphs	E TEST YOURSELF		
TOPIC 2	GRAPHS		
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Specification Refe	rence EzyMaths Activity		Activity Link
A16 recognise and use the equation of a circle with centre at		GR4.3.1 - Equation of a Circle	► WATCH VIDED
		GR4.3.2 - Finding the Equation of a Tangent to a Circle	► WATCH VIDED
the origin find the equation of a tangent to a circle at a given p	circle at a given point	GR4.3.3 - The Equation of a Circle - Why?	WATCH VIDED
		GR4.3a – Equation of a Circle	TEST YOURSELF
		GR4.3b – Equation of a Circle	TEST YOURSELF

SOLVING EQUATIONS AND INEQUALITIES

Specification Reference	EzyMaths Activity	Activity Link
	A3.1 – Introduction to Linear Equations	► WATCH VIDED
A17 solve linear equations in one unknown algebraically find approximate solutions using a graph including those with the unknown on both sides of the equation	A3.1a – Introduction to Linear Equations	E TEST YOURSELF
	A3.2 – Basic Linear Equations	► WATCH VIDED
	A3.2a – Basic Linear Equations	E TEST YOURSELF
	A3.2b – Basic Linear Equations	E TEST YOURSELF
	A3.2c – Basic Linear Equations	E TEST YOURSELF
	A3.3 – Advanced Linear Equations	► WATCH VIDED
	A3.3a – Advanced Linear Equations	Interpretation and the second sec
	43.3h - Advanced Linear Fouations	TEST YOURSELF

SOLVING EQUATIONS AND INEQUALITIES

Specification Reference	EzyMaths Activity	Activity Link
	A4.1 – Introduction to Quadratic Equations	► WATCH VIDED
	A4.1a – Introduction to Quadratics	TEST YOURSELF
	A4.2 – Factorising a=1 Quadratics	► WATCH VIDED
A18 solve quadratic equations algebraically by factorising	A4.2a - Factorising a=1 Quadratics	TEST YOURSELF
completing the square and by using the quadratic formula	A4.2b - Factorising a=1 Quadratics	E TEST YOURSELF
find approximate solutions using a graph	A4.2c - Factorising a=1 Quadratics	E TEST YOURSELF
	A4.3 - Factorising a≠1 Quadratics	► WATCH VIDED
	A4.3a - Factorising a≠1 Quadratics	TEST YOURSELF
	A4.3b - Factorising a≠1 Quadratics	E TEST YOURSELF

SOLVING EQUATIONS AND INEQUALITIES

A4.6c – The Quadratic Formula

TEST YOURSELF

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Specification Reference	EzyMaths Activity	Activity Link
	A4.5 – Solving Quadratics by Factorising	► WATCH VIDED
	A4.5a – Solving Quadratics by Factorising	TEST YOURSELF
	A4.5b – Solving Quadratics by Factorising	E TEST YOURSELF
A18 solve quadratic equations algebraically by factorising	A4.5c – Solving Quadratics by Factorising	TEST YOURSELF
including those that require rearrangement AND completing the square and by using the quadratic formula	A4.6.1 – The Quadratic Formula	► WATCH VIDED
find approximate solutions using a graph	A4.6.2 – Quadratic Formula involving Cross- Multiplication	WATCH VIDED
	A4.6a – The Quadratic Formula	E TEST YOURSELF
	A4.6b – The Quadratic Formula	E TEST YOURSELF

SOLVING EQUATIONS AND INEQUALITIES

A18 solve quadratic equations algebraically by factorising including those that require rearrangement AND completing the square and by using the quadratic formula

Specification Reference

find approximate solutions using a graph

EzyMaths Activity	Activity Link
A4.7 – Completing the Square	WATCH VIDED
A4.7a – Completing the Square	E TEST YOURSELF
A4.7b – Completing the Square	E TEST YOURSELF
A4.8 - Solving Quadratic Equations by Completing the Square	WATCH VIDED
A4.8a - Solving Quadratic Equations by Completing the Square	E TEST YOURSELF
A4.8b - Solving Quadratic Equations by Completing the Square	TEST YOURSELF

l	TOPIC 3SOLVIN	SOLVING EQUATIONS AND INEQUALITIES		
	Specification Reference	EzyMaths Activity	Activity Link	
		A4.9.1 - Trial and Improvement	WATCH VIDED	
	A20 find approximate solutions to equations numerically using iteration	A4.9.2 - Iterative Formulae	WATCH VIDED	
		A4.9a - Iteration	TEST YOURSELF	

SOLVING EQUATIONS AND INEQUALITIES

A5.3b - Quadratic Simultaneous Equations

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TEST YOURSELF

Specification Reference	EzyMaths Activity	Activity Link
	A5.1 - Introduction to Simultaneous Equations	► WATCH VIDED
	A5.1a – Introduction to Simultaneous Equations	E TEST YOURSELF
	A5.2.1 - Linear Simultaneous Equations (Addition/Subtraction Method)	► WATCH VIDED
translate simple situations or procedures into algebraic expressions or formulae derive an equation (or two simultaneous equations), solve the equation(s) and interpret the solution	A5.2.2 - Linear Simultaneous Equations (Substitution Method)	► WATCH VIDED
	A5.2a - Linear Simultaneous Equations	E TEST YOURSELF
	A5.2b - Linear Simultaneous Equations	E TEST YOURSELF
	A5.2c - Linear Simultaneous Equations	E TEST YOURSELF
	A5.3 - Quadratic Simultaneous Equations	► WATCH VIDED
	A5.3a - Quadratic Simultaneous Equations	E TEST YOURSELF

TOPIC 3	SOLVING EQUATIONS AND INEQUALITIES		
Specification Reference		EzyMaths Activity	Activity Link
A22 solve linear inequalities in one or two variable(s), and quadratic inequalities in one variable represent the solution set on a number line, using set notation and on a graph		A6.1 – Inequality Symbols	WATCH VIDEO
		A6.1a – Inequality Symbols	E TEST YOURSELF
		A6.2 – Inequality Numberlines	► WATCH VIDED
		A6.2a – Inequality Numberlines	TEST YOURSELF
		A6.2b – Inequality Numberlines	TEST YOURSELF

SOLVING EQUATIONS AND INEQUALITIES

A22 solve linear inequalities in one or two variable(s), and quadratic inequalities in one variable

Specification Reference

represent the solution set on a number line, using set notation and on a graph

EzyMaths Activity	Activity Link
A6.3 – Solving Linear Inequalities	► WATCH VIDED
A6.3a – Solving Linear Inequalities	E TEST YOURSELF
A6.3b – Solving Linear Inequalities	E TEST YOURSELF
A6.3c – Solving Linear Inequalities	E TEST YOURSELF
A6.4 - Solving Quadratic Inequalities	► WATCH VIDED
A6.4a – Solving Quadratic Inequalities	E TEST YOURSELF
A6.4b – Solving Quadratic Inequalities	≹ TEST YOURSELF
A6.5 - Two-Variable Linear Inequalities	► WATCH VIDED
A6.5a - Two-Variable Linear Inequalities	E TEST YOURSELF
A6.5b - Two-Variable Linear Inequalities	E TEST YOURSELF

SOLVING EQUATIONS AND INEQUALITIES

Specification Reference

A23 generate terms of a sequence from either a term-to-term or a position-to-term rule

Notes: including from patterns and diagrams.

A24 recognise and use sequences of triangular, square and cube numbers and simple arithmetic progressions including Fibonacci-type sequences, quadratic sequences, and simple geometric progressions (rⁿ where n is an integer and r is a rational number > 0)

including other sequences

including where r is a surd

EzyMaths Activity	Activity Link
A8.1.1 – Introduction to Sequences	► WATCH VIDED
A8.1.2 – Common Sequences	► WATCH VIDED
A8.1a – Introduction to Sequences	E TEST YOURSELF
A8.1b – Introduction to Sequences	E TEST YOURSELF
A8.2.1 - Arithmetic Progressions	► WATCH VIDED
A8.2.2 - Arithmetic Progressions	► WATCH VIDED
A8.2a - Arithmetic Progressions	E TEST YOURSELF
A8.2b - Arithmetic Progressions	E TEST YOURSELF
A8.3 – Advanced Sequences	► WATCH VIDED
A8.3a – Advanced Sequences	E TEST YOURSELF
A8 3h - Advanced Sequences	

SOLVING EQUATIONS AND INEQUALITIES

Specification Reference	EzyMaths Activity	Activity Link
A25 deduce expressions to calculate the nth term of linear sequences including quadratic sequences	A8.4 - Finding the nth term of Quadratic Sequences	WATCH VIDED
	A8.4a - Finding the nth term of Quadratic Sequences	TEST YOURSELF
	A8.5 – Sequences Problems	WATCH VIDED
	A8.5a – Sequences Problems	TEST YOURSELF
	A8.5b – Sequences Problems	TEST YOURSELF

REVISION MATERIALS

ALGEBRA AND GRAPHS

Alongside our scheme of work, we have a collection of different resources to help you recap all the core themes and topics from this Section. These materials can be used at the end of teaching of this section and can be revisited at later dates to refresh your understanding of these topics before an in-class test, mock exam or a summer examination.

SNAPSHOT VIDEOS



Watch 25 recap videos that re-visit the main elements of the main topic areas.

CLICK HERE TO WATCH VIDEOS

END OF SECTION ASSESSMENT



Attempt a comprehensive 30-question assessment testing you on each topic in this section.

ALGEBRA ESA

GRAPHS ESA





RATIO, PROPORTION AND RATES OF CHANGE SECTION

All of the content in this section of the scheme of work relates to Section 3.3: Ratio, Proportion and Rates of Change in the AQA GCSE Maths Specification

TOPIC 1 RATIO, PROPORTION AND RATES OF CHANGE

	Specification Reference	EzyMaths Activity	Activity Link
		RPR1.1 – Introduction to Ratios	► WATCH VIDED
KI	change freely between related standard units (eg time, length, area, volume/capacity, mass) and compound units (eg speed, rates of pay, prices) in	RPR1.1a – Introduction to Ratios	TEST YOURSELF
R2	use scale factors, scale diagrams and mans	RPR1.1b – Introduction to Ratios	E TEST YOURSELF
	Notes: including geometrical problems	RPR1.2 - Dividing Quantities Using Ratios	► WATCH VIDED
R3	express one quantity as a fraction of another, where the fraction is less than I or	RPR1.2a - Dividing Quantities Using Ratios	E TEST YOURSELF
greater that	greater than I	RPR1.2b - Dividing Quantities Using Ratios	E TEST YOURSELF
R4	use ratio notation, including reduction to simplest form	RPR1.2c - Dividing Quantities Using Ratios	E TEST YOURSELF
K 5	divide a given quantity into two parts in a given part : part or part : whole ratio	RPR1.3 – Map Scale Factors	► WATCH VIDED
	apply ratio to real contexts and problems (such as those involving conversion	RPR1.3a – Map Scale Factors	E TEST YOURSELF
	comparison, scaling, mixing, concentrations)	RPR1.4 - Expressing quantities as fractions of each other	► WATCH VIDED
RG	express a multiplicative relationship between two quantities as a ratio or a fraction	RPR1.4a - Expressing quantities as fractions of each other	TEST YOURSELF
		RPR1.4b - Expressing quantities as fractions of each other	E TEST YOURSELF

	Specification Reference	EzyMaths Activity	Activity Link
10	define persentage as 'number of perto per bundred'	RPR2.1 – Introduction to Percentages	► WATCH VIDED
(1	interpret percentages and percentage changes as a fraction or a	RPR2.1a – Introduction to Percentages	E TEST YOURSELF
	decimal, and interpret these multiplicatively	RPR2.1b – Introduction to Percentages	E TEST YOURSELF
	compare two quantities using percentages	RPR2.2 - Expressing one quantity as a percentage of another	WATCH VIDED
	work with percentages greater than 100%	RPR2.2a - Expressing one quantity as a percentage of another	E TEST YOURSELF
	solve problems involving percentage change, including percentage increase/decrease and original value problems, and	RPR2.2b - Expressing one quantity as a percentage of another	TEST YOURSELF
	simple interest including in financial mathematics	RPR2.2c - Expressing one quantity as a percentage of another	E TEST YOURSELF

RATIO, PROPORTION AND RATES OF CHANGE

Specification Reference	EzyMaths Activity	Activity Link
	RPR2.3 – Percentage Increases	► WATCH VIDED
R9 define percentage as 'number of parts per hundred'	RPR2.3a – Percentage Increases	E TEST YOURSELF
interpret percentages and percentage changes as a fraction or a	RPR2.3b – Percentage Increases	E TEST YOURSELF
decimal, and interpret these multiplicatively	RPR2.4 – Percentage Decreases	► WATCH VIDED
express one quantity as a percentage of another	RPR2.4a – Percentage Decreases	E TEST YOURSELF
compare two quantities using percentages	RPR2.4b – Percentage Decreases	E TEST YOURSELF
work with percentages greater than 100%	RPR2.5 – Reverse Percentage Changes	► WATCH VIDED
solve problems involving percentage change, including	RPR2.5a – Reverse Percentage Changes	E TEST YOURSELF
simple interest including in financial mathematics	RPR2.5b – Reverse Percentage Changes	E TEST YOURSELF
	RPR2.5c – Reverse Percentage Changes	E TEST YOURSELF

	Specification Reference	EzyMaths Activity	Activity Link
R9	define percentage as 'number of parts per hundred' interpret percentages and percentage changes as a fraction or a	RPR2.6 – Simple Interest	WATCH VIDED
	decimal, and interpret these multiplicatively express one quantity as a percentage of another	RPR2.6a – Simple Interest	TEST YOURSELF
	compare two quantities using percentages	RPR2.6b – Simple Interest	E TEST YOURSELF
	work with percentages greater than 100% solve problems involving percentage change, including	RPR2.7 – Compound Growth and Decay	WATCH VIDED
	percentage increase/decrease and original value problems, and simple interest including in financial mathematics	RPR2.7a – Compound Growth and Decay	E TEST YOURSELF
R16	set up, solve and interpret the answers in growth and decay problems, including compound interest and work with general iterative processes	RPR2.7b – Compound Growth and Decay	E TEST YOURSELF

Specification Reference	EzyMaths Activity	Activity Link
	RPR3.1 – Introduction to Proportion	► WATCH VIDED
	RPR3.1a – Introduction to Proportion	E TEST YOURSELF
	RPR3.16 – Introduction to Proportion	E TEST YOURSELF
	RPR3.2 – Direct Proportion	► WATCH VIDED
	RPR3.2a – Direct Proportion	E TEST YOURSELF
R7 understand and use proportion as equality of ratios	RPR3.2b – Direct Proportion	E TEST YOURSELF
solve problems involving direct and inverse proportion, including graphical and algebraic representations	RPR3.2c – Direct Proportion	E TEST YOURSELF
	RPR3.3 – Inverse Proportion	WATCH VIDED
R13 understand that X is inversely proportional to Y is equivalent	RPR3.3a – Inverse Proportion	TEST YOURSELF
to X is proportional to $\frac{1}{v}$	RPR3.36 – Inverse Proportion	E TEST YOURSELF
construct and interpret equations that describe direct and	RPR3.3c – Inverse Proportion	E TEST YOURSELF
inverse proportion	RPR3.4 – Graphical Representations	► WATCH VIDED
	RPR3.4a – Graphical Representations	E TEST YOURSELF

Specification Reference	EzyMaths Activity	Activity Link
	RPR4.1 – Introduction to Rates of Change	WATCH VIDED
R14 interpret the gradient of a straight-line graph as a rate of change recognise and interpret graphs that illustrate	RPR4.1a – Introduction to Rates of Change	E TEST YOURSELF
direct and inverse proportion R15 interpret the gradient at a point on a curve as the	RPR4.2 - Interpreting Gradients as Rates of Change	WATCH VIDED
instantaneous rate of change apply the concepts of average and instantaneous rate of	RPR4.2a - Interpreting Gradients as Rates of Change	TEST YOURSELF
change (gradients of chords and tangents) in numerical, algebraic and graphical contexts	RPR4.3 - Average and Instantaneous Rates of Change	► WATCH VIDED
	RPR4.3a - Average and Instantaneous Rates of Change	E TEST YOURSELF

REVISION MATERIALS RATIO, PROPORTION AND RATE OF CHANGE

Alongside our scheme of work, we have a collection of different resources to help you recap all the core themes and topics from this Section. These materials can be used at the end of teaching of this section and can be revisited at later dates to refresh your understanding of these topics before an in-class test, mock exam or a summer examination.

SNAPSHOT VIDEOS





Watch 7 recap videos that re-visit the main elements of the main topic areas.

CLICK HERE TO WATCH VIDEOS

END OF SECTION ASSESSMENT



Attempt a comprehensive 30-question assessment testing you on each topic in this section.

CLICK HERE TO ATTEMPT ESA





GEOMETRY SECTION

All of the content in this section of the scheme of work relates to Section 3.4: Geometry and Measures in the AQA GCSE Maths Specification

PROPERTIES AND CONSTRUCTIONS

Specification Reference		EzyMaths Activity	Activity Link
G1 use conventional terms and notations: points, lines,	lines, diaulaa liaaa	GE1.1 - Quadrilaterals	► WATCH VIDED
right angles, polygons, regular polygons and j	olcular lines, polygons with	GE1.1a - Quadrilaterals	E TEST YOURSELF
reflection and/or rotation symmetries		GE1.1b - Quadrilaterals	E TEST YOURSELF
use the standard conventions for labelling an	d referring to	GE1.2 - Triangles	► WATCH VIDED
the sides and angles of triangles		GE1.2a - Triangles	E TEST YOURSELF
draw diagrams from written description		GE1.3 - Polygons	► WATCH VIDED
derive and apply the properties and definitions of: special types of quadrilaterals, including square, rectangle, parallelogram, trapezium, kite and rhombus and triangles	s of: special	GE1.3a - Polygons	E TEST YOURSELF
	tangle, and triangles	GE1.4 – 3D Shapes	► WATCH VIDED
and other plane figures using appropriate lan	guage	GE1.4a – 3D Shapes	E TEST YOURSELF
G13 construct and interpret plans and elevations	of 3D shapes	GE1.4b – 3D Shapes	E TEST YOURSELF

Specification Reference	EzyMaths Activity	Activity Link
	GE3.1.1 – Measuring Lines	► WATCH VIDED
G2 use the standard ruler and compass constructions	GE3.1.2 - Measuring Angles	► WATCH VIDED
perpendicular bisector of a line segment, constructing a erpendicular to a given line from/at a given point,	GE3.1a – Measuring Lines and Angles	TEST YOURSELF
bisecting a given angle)	GE3.2.1 – Line Bisectors	► WATCH VIDED
use these to construct given figures and solve loci problems	GE3.2.2 – Angle Bisectors	► WATCH VIDED
know that the perpendicular distance from a point to a line	GE3.2a – Constructing Bisectors	E TEST YOURSELF
is the shortest distance to the line	GE3.3 – Loci and Regions	WATCH VIDED
	GE3.3a – Loci and Regions	TEST YOURSELF

	Specification Reference	EzyMaths Activity	Activity Link
		GE2.1 – Angle Notation and Conventions	► WATCH VIDED
		GE2.1a – Angle Notation and Conventions	E TEST YOURSELF
G3 apply the p	properties of angles at a point, angles at a point	GE2.2 - Angles at a point and on a straight line	► WATCH VIDED
on a straig	on a straight line, vertically opposite angles	GE2.2a - Angles at a point and on a straight line	E TEST YOURSELF
understan	d and use alternate and corresponding angles on	GE2.2b - Angles at a point and on a straight line	E TEST YOURSELF
parallel lir	ES	GE2.3 – Vertically Opposite Angles	► WATCH VIDED
derive and deduce an	use the sum of angles in a triangle (eg to d use the angle sum in any polygon, and to derive	GE2.3a – Vertically Opposite Angles	E TEST YOURSELF
properties	of regular polygons)	GE2.4 - Corresponding, Alternate and Co-Interior Angles	► WATCH VIDED
		GE2.4a - Corresponding, Alternate and Co-Interior Angles	E TEST YOURSELF
		GE2.4b - Corresponding, Alternate and Co-Interior Angles	TEST YOURSELF

Specification Reference	EzyMaths Activity	Activity Link
	GE2.5 – Angles in a Triangle	► WATCH VIDED
	GE2.5a – Angles in a Triangle	
33 apply the properties of angles at a point, angles at a point	GE2.5b – Angles in a Triangle	E TEST YOURSELF
on a straight line, vertically opposite angles	GE2.6 – Angles in an Isosceles Triangle	► WATCH VIDED
understand and use alternate and corresponding angles on parallel lines derive and use the sum of angles in a triangle (eg to deduce and use the angle sum in any polygon, and to derive properties of regular polygons)	GE2.6a – Angles in an Isosceles Triangle	E TEST YOURSELF
	GE2.6b – Angles in an Isosceles Triangle	E TEST YOURSELF
	GE2.7 – Angles in a Polygon	► WATCH VIDED
	GE2.7a – Angles in a Polygon	E TEST YOURSELF
	GE2.7b – Angles in a Polygon	≹ TEST YOURSELF
	GE2.7c – Angles in a Polygon	I SET YOURSELF

	Specification Reference	EzyMaths Activity	Activity Link
65	use the basic congruence criteria for triangles (SSS, SAS, ASA, RHS)	GE7.1 – Similarity in 1D	► WATCH VIDED
GG	apply angle facts, triangle congruence, similarity and	GE7.1a – Similarity in 1D	E TEST YOURSELF
	properties of quadrilaterals to conjecture and derive results about angles and sides, including Pythagoras'	GE7.1b – Similarity in 1D	E TEST YOURSELF
	theorem and the fact that the base angles of an isosceles triangle are equal, and use known results to obtain simple	GE7.2 – Similarity in more than one dimension	► WATCH VIDED
G7	proofs identify, describe and construct concruent and similar	GE7.2a – Similarity in more than one dimension	E TEST YOURSELF
	shapes, including on coordinate axes, by considering rotation, reflection, translation and enlargement including	GE7.3 - Congruence	► WATCH VIDED
C10	fractional and negative scale factors	GE7.3a - Congruence	TEST YOURSELF
010	the relationships between lengths in similar figures, the	GE7.4 – Congruence Criteria for Triangles	► WATCH VIDED
	similar figures	GE7.4a – Congruence Criteria for Triangles	TEST YOURSELF

Specification Reference	EzyMaths Activity	Activity Link
	GE8.1 – Reflection	► WATCH VIDED
	GE8.1a – Reflection	E TEST YOURSELF
37 identify, describe and construct congruent and similar shapes, including on coordinate axes, by considering	GE8.1b – Reflection	E TEST YOURSELF
rotation, reflection, translation and enlargement including fractional and pagative scale factors	GE8.2 – Rotation	► WATCH VIDED
describe the changes and invariance achieved by combinations of rotations, reflections and translations	GE8.2a – Rotation	E TEST YOURSELF
	GE8.2b - Rotation	E TEST YOURSELF
324 describe translations as 2D vectors	GE8.3 - Translation	► WATCH VIDED
	GE8.3a - Translation	E TEST YOURSELF
	GE8.3b - Translation	E TEST YOURSELF

TOPIC 1	PROPERTIES AND CONSTRUCTIONS		
Specification Reference		EzyMaths Activity	Activity Link
 G7 identify, describe and construct congruent and similar shapes, including on coordinate axes, by considering rotation, reflection, translation and enlargement including fractional and negative scale factors G8 describe the changes and invariance achieved by combinations of rotations, reflections and translations 		GE8.4 – Enlargement	WATCH VIDED
		GE8.4a – Enlargement	E TEST YOURSELF
		GE8.4b - Enlargement	E TEST YOURSELF
		GE8.5 – Compound Transformations	WATCH VIDED
G24 describe translations as 2D vectors		GE8.5a– Compound Transformations	TEST YOURSELF
		GE8.5b – Compound Transformations	TEST YOURSELF

topic 1

PROPERTIES AND CONSTRUCTIONS

Specification Reference	EzyMaths Activity	Activity Link
	GE6.1 – Circle Definitions	► WATCH VIDED
	GE6.1a – Circle Definitions	E TEST YOURSELF
	GE6.2 – Circumference of a Circle	► WATCH VIDED
G9 identify and apply circle definitions and properties, including:	GE6.2a – Circumference of a Circle	E TEST YOURSELF
centre, radius, chord, diameter, circumference, tangent, arc, sector and segment	GE6.2b – Circumference of a Circle	E TEST YOURSELF
G17 know the formulae: circumference of a circle = $2\pi r = \pi d$	GE6.3 – Area of a Circle	► WATCH VIDED
area of a circle = πr^2	GE6.3a – Area of a Circle	E TEST YOURSELF
G18 calculate arc lengths, angles and areas of sectors of circles	GE6.3b – Area of a Circle	E TEST YOURSELF
	GE6.4 – Sectors and Arc Lengths of Circles	► WATCH VIDED
	GE6.4a – Sectors and Arc Lenoths of Circles	E TEST YOURSELF

GE6.4b – Sectors and Arc Lengths of Circles

TEST YOURSELF

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Specification Reference	EzyMaths Activity	Activity Link
identify and apply circle definitions and properties, including:	GE6.5 – Circle Theorems 1	► WATCH VIDED
centre, radius, chord, diameter, circumference, tangent, arc, sector and segment	GE6.5a – Circle Theorems 1	E TEST YOURSELF
G10 apply and prove the standard circle theorems concerning angles,	GE6.5b – Circle Theorems 1	E TEST YOURSELF
radii, tangents and chords, and use them to prove related results	GE6.6 – Circle Theorems 2	► WATCH VIDED
Notes: including angle subtended by an arc at the centre is equal to twice the angle subtended at any point on the	GE6.6a – Circle Theorems 2	E TEST YOURSELF
circumference, angle subtended at the circumference by a semicircle is 90°, angles in the same segment are equal,	GE6.6b – Circle Theorems 2	E TEST YOURSELF
opposite angles in a cyclic quadrilateral sum to 180°, tangent at any point on a circle is perpendicular to the radius at that	GE6.7 – Circle Theorems Extension	► WATCH VIDED
point, tangents from an external point are equal in length, the perpendicular from the centre to a chord bisects the chord, alternate segment theorem.	GE6.7a – Circle Theorems Extension	E TEST YOURSELF
	GE6.7b – Circle Theorems Extension	E TEST YOURSELF

MENSURATION AND CALCULATION

Specification Reference	EzyMaths Activity	Activity Link
P49 : January to a fight from a sufficient of the set	GE5.1 - Perimeters	► WATCH VIDED
vertices of: cubes, cuboids, prisms, cylinders, pyramids,	GE5.1a – Perimeters	E TEST YOURSELF
cones and spheres	GE5.1b – Perimeters	E TEST YOURSELF
(length, area, volume/capacity, mass, time, money etc.)	GE5.2 – Rectangular Areas	► WATCH VIDED
GIG know and apply formulae to calculate: area of triangles,	GE5.2a – Rectangular Areas	E TEST YOURSELF
 parallelograms, trapezia; volume of cuboids and other right prisms (including cylinders) G17 calculate perimeters of 2D shapes, including circles areas of circles and composite shapes, as well as the surface area and volume of soheres, ovramids, cones and 	GE5.2b – Rectangular Areas	E TEST YOURSELF
	GE5.3 – Area of a Triangle	► WATCH VIDED
	GE5.3a – Area of a Triangle	E TEST YOURSELF
composite solids	GE5.3b – Area of a Triangle	E TEST YOURSELF
623 know and apply $Area = \frac{1}{2}absinC$ to calculate the	GE5.4 – A=0.5absinc	► WATCH VIDED
area, sides or angles of any triangle	GE5.4a – A=0.5absinc	E TEST YOURSELF

MENSURATION AND CALCULATION

GE5.8b – Calculating Advanced Areas and Volumes

TEST YOURSELF

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Specification Reference	EzyMaths Activity	Activity Link
	GE5.5 – Parallelograms and Trapezia	WATCH VIDED
G12 identify properties of the faces, surfaces, edges and	GE5.5a – Parallelograms and Trapezia	TEST YOURSELF
vertices of: cubes, cuboids, prisms, cylinders, pyramids, cones and soberes	GE5.5b – Parallelograms and Trapezia	E TEST YOURSELF
G14 use standard units of measure and related concepts	GE5.6 – Volumes of Prisms	WATCH VIDED
(length, area, volume/capacity, mass, time, money etc.) GIG know and apply formulae to calculate: area of triangles	GE5.6a – Volumes of Prisms	E TEST YOURSELF
parallelograms, trapezia; volume of cuboids and other right	GE5.6b – Volumes of Prisms	TEST YOURSELF
prisms (including cylinders) G17 calculate perimeters of 2D shapes including circles areas	GE5.7 – Volumes of Spheres, Pyramids and Cones	► WATCH VIDED
of circles and composite shapes, as well as the surface	GE5.7a – Volumes of Spheres, Pyramids and Cones	TEST YOURSELF
area and volume of spheres, pyramids, cones and composite solids	GE5.7b – Volumes of Spheres, Pyramids and Cones	TEST YOURSELF
623 know and apply $Area = \frac{1}{2}absinC$ to calculate the	GE5.8 – Calculating Advanced Areas and Volumes	► WATCH VIDED
area, sides or angles of any triangle	GE5.8a – Calculating Advanced Areas and Volumes	E TEST YOURSELF

TOPIC 2	MENSURATION AND CALCULATION		
Specification Refer	rence	EzyMaths Activity	Activity Link
G15 measure line segments and angles in geometric figures, including interpreting maps and scale drawings and use of bearings		GE2.8 – Bearings	WATCH VIDED
		GE2.8a - Bearings	TEST YOURSELF
		GE2.8b - Bearings	TEST YOURSELF

MENSURATION AND CALCULATION

Specification Reference	EzyMaths Activity	Activity Link
G20 know the formulae for: Pythagoras' theorem, $a^{2+} b^{2} = c^{2}$ and the trigonometric ratios, $\sin\theta = \frac{opposite}{hypotenuse}$, $\cos\theta = \frac{adjacent}{hypotenuse}$ $\tan\theta = \frac{opposite}{adjacent}$ apply them to find angles and lengths in right-angled triangles and, where possible, general triangles in two and three dimensional figures	GE4.1 – Pythagoras' Theorem	► WATCH VIDED
	GE4.1a – Pythagoras' Theorem	E TEST YOURSELF
	GE4.1b – Pythagoras' Theorem	E TEST YOURSELF
	GE4.2- Sine Function	► WATCH VIDED
	GE4.2a – Sine Function	E TEST YOURSELF
	GE4.2b – Sine Function	E TEST YOURSELF
	GE4.3 – Cosine Function	► WATCH VIDED
	GE4.3a – Cosine Function	E TEST YOURSELF
	GE4.3b – Cosine Function	E TEST YOURSELF
	GE4.4 – Tangent Function	► WATCH VIDED
	GE4.4a – Tangent Function	E TEST YOURSELF
	GE4.4b – Tangent Function	E TEST YOURSELF

TOPIC 2 MENSURATION AND CALCULATION EzyMaths Activity Activity Link Specification Reference GE4.5 - SohCahToa WATCH VIDED \triangleright GE4.5a - SohCahToa ξΞ TEST YOURSELF GE4.5b - SohCahToa ž TEST YOURSELF ž TEST YOURSELF GE4.5c - SohCahToa **G21** know the exact values of $\sin \vartheta$ and $\cos \vartheta$ for $\vartheta = 0^{\circ}$, 30° . WATCH VIDED GE4.6 – Sine Rule 45° , 60° and 90° know the exact value of tan ϑ for $\vartheta = 0^{\circ}$, GE4.6a - Sine Rule TEST YOURSELF ŧΞ 30°, 45° , 60° ž TEST YOURSELF GE4.6b – Sine Rule **G22** know and apply the sine rule, and cosine rule, to find WATCH VIDEO GE4.7 – Cosine Rule unknown lengths and angles TEST YOURSELF GE4.7a – Cosine Rule žΞ TEST YOURSELF GE4.7b – Cosine Rule **三** WATCH VIDED GE4.8 – Problems in 3D

GE4.8a – Problems in 3D

žΞ.

TEST YOURSELF

VECTORS

Specification Reference	EzyMaths Activity	Activity Link
	GE9.1 – Concept of a Vector	► WATCH VIDED
	GE9.1a – Concept of a Vector	E TEST YOURSELF
	GE9.2 – Addition and Subtraction of Vectors	► WATCH VIDED
G24 describe translations as 2D vectors	GE9.2a – Addition and Subtraction of Vectors	E TEST YOURSELF
G25 apply addition and subtraction of vectors, multiplication of	GE9.2b – Addition and Subtraction of Vectors	E TEST YOURSELF
vectors by a scalar, and diagrammatic and column representations of vectors	GE9.3 – Multiplication of Vectors by Scalar	► WATCH VIDED
use vectors to construct geometric arguments and proofs	GE9.3a – Multiplication of Vectors by Scalar	E TEST YOURSELF
	GE9.3b – Multiplication of Vectors by Scalar	E TEST YOURSELF
	GE9.4 – Using Vectors to Construct Proofs	► WATCH VIDED
	GE9.4a – Using Vectors to Construct Proofs	<pre></pre>
REVISION MATERIALS

GEOMETRY

Alongside our scheme of work, we have a collection of different resources to help you recap all the core themes and topics from this Section. These materials can be used at the end of teaching of this section and can be revisited at later dates to refresh your understanding of these topics before an in-class test, mock exam or a summer examination.

SNAPSHOT VIDEOS





Watch 23 recap videos that re-visit the main elements of the main topic areas.

CLICK HERE TO WATCH VIDEOS

END OF SECTION ASSESSMENT



numb	er machine, v	what would	the output
iden does not	ify which of belong to t R th term	Q6 I the follow he sequer t = 10/t -	wing term toe define F-4
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B	.54	0	104

Attempt a comprehensive 30-question assessment testing you on each topic in this section.

CLICK HERE TO ATTEMPT ESA





PROBABILITY AND STATISTICS SECTION

All of the content in this section of the scheme of work relates to Sections 3.5 and 3.6 in the AQA GCSE Maths Specification

PROBABILITY

Specification Reference	EzyMaths Activity	Activity Link
P1 record, describe and analyse the frequency of outcomes of probability experiments using tables and frequency trees	PS1.1 – Introduction to Probability	WATCH VIDED
	PS1.1a – Introduction to Probability	TEST YOURSELF
	PS1.2.1 – Counting Outcomes	WATCH VIDED
	PS1.2.2 – The Produce Rule	► WATCH VIDED
	PS1.2a – Counting Outcomes	TEST YOURSELF
	PS1.2b – Counting Outcomes	TEST YOURSELF

PROBABILITY

Specification Reference	EzyMaths Activity	Activity Link
	PS1.3 – Calculating Probability	► WATCH VIDED
2 apply ideas of randomness, fairness and equally likely events to calculate expected outcomes of multiple future experiments	PS1.3a – Calculating Probability	E TEST YOURSELF
	PS1.3b – Calculating Probability	E TEST YOURSELF
3 relate relative expected frequencies to theoretical	PS1.4 – Mutually Exclusive Events	► WATCH VIDED
probability scale	PS1.4a – Mutually Exclusive Events	E TEST YOURSELF
apply the property that the probabilities of an exhaustive PS1.4b – Mutually Exclusive Event		E TEST YOURSELF
set of outcomes sum to 1	PS1.5 – Calculating Expected Outcomes	► WATCH VIDED
apply the property that the probabilities of an exhaustive set of mutually exclusive events sum to 1	PS1.5a – Calculating Expected Outcomes	E TEST YOURSELF
	PS1.5b – Calculating Expected Outcomes	E TEST YOURSELF

PROBABILITY

Specification Reference	EzyMaths Activity	Activity Link
	PS2.1 – Types of Data	WATCH VIDED
P5 understand that empirical unbiased samples tend towards theoretical probability distributions, with increasing sample size	PS2.1a – Types of Data	TEST YOURSELF
S1 infer properties of populations or distributions from a sample, whilst knowing the limitations of sampling	PS2.2 – Sampling	WATCH VIDED
	PS2.2a – Sampling	TEST YOURSELF

PROBABILITY

Specification Reference	EzyMaths Activity	Activity Link
	PS1.6.1 - Sets	► WATCH VIDED
	PS1.6.2 – Venn Diagrams	► WATCH VIDED
 P6 enumerate sets and combinations of sets systematically, using tables, grids, Venn diagrams and tree diagrams P7 construct theoretical possibility spaces for single and combined experiments with equally likely outcomes and use these to calculate theoretical probabilities 	PS1.6a – Venn Diagrams	E TEST YOURSELF
	PS1.6b – Venn Diagrams	E TEST YOURSELF
	PS1.7 – Probability Trees	► WATCH VIDED
	PS1.7a – Probability Trees	E TEST YOURSELF
P8 calculate the probability of independent and dependent combined events, including using tree diagrams and other representations, and know the underlying assumptions	PS1.7b – Probability Trees	E TEST YOURSELF
	PS1.8 – Dependent Events	► WATCH VIDED
	PS1.8a – Dependent Events	E TEST YOURSELF
	PS1.8b – Dependent Events	E TEST YOURSELF

TOPIC 1	PROBABILITY		
Specification Reference	EzyMaths Activity	Activity Link	
	PS2.3 – Frequency Tables	WATCH VIDED	
P9 calculate and interpret conditional probabilities through	PS2.3a – Frequency Tables	TEST YOURSELF	
representation using expected frequencies with two-way tables, tree diagrams and Venn diagrams	PS2.4 – Two-Way Frequency Tables	WATCH VIDEO	
	PS2.4a – Two-Way Frequency Tables	EST YOURSELF	

STATISTICS

S2 interpret and construct tables, charts and diagrams, including frequency tables, bar charts, pie charts and pictograms for categorical data, vertical line charts for ungrouped discrete numerical data, and know their appropriate use including tables and line graphs for time series data

Specification Reference

S3 construct and interpret diagrams for grouped discrete data and continuous data, ie histograms with equal and unequal class intervals and cumulative frequency graphs, and know their appropriate use

EzyMaths Activity	Activity Link
PS4.1 – Cumulative Frequency Tables	WATCH VIDEO
PS4.1a – Cumulative Frequency Tables	TEST YOURSELF
PS4.2 – Cumulative Frequency Charts	WATCH VIDED
PS4.2a – Cumulative Frequency Charts	TEST YOURSELF
PS4.2b – Cumulative Frequency Charts	E TEST YOURSELF

STATISTICS

SZ	interpret and construct tables, charts and diagrams,
	including frequency tables, bar charts, pie charts and
	pictograms for categorical data, vertical line charts for
	ungrouped discrete numerical data, and know their
	appropriate use including tables and line graphs for time
	series data

Specification Reference

S3 construct and interpret diagrams for grouped discrete data and continuous data, ie histograms with equal and unequal class intervals and cumulative frequency graphs, and know their appropriate use

EzyMaths Activity	Activity Link
PS5.1 – Bar Charts	► WATCH VIDED
PS5.1a – Bar Charts	E TEST YOURSELF
PS5.2 – Pie Charts	WATCH VIDED
PS5.2a – Pie Charts	E TEST YOURSELF
PS5.3 - Pictograms	WATCH VIDED
PS5.3a - Pictograms	E TEST YOURSELF
PS5.4 – Line Charts	WATCH VIDED
PS5.4a – Line Charts	TEST YOURSELF
PS5.5 - Histograms	WATCH VIDED
PS5.5a - Histograms	TEST YOURSELF
PS5.5b - Histograms	E TEST YOURSELF

STATISTICS

- 5	neci	fica	tinn	Ref	erence	
-						

- **S4** interpret, analyse and compare the distributions of data sets from univariate empirical distributions through:
- appropriate graphical representation involving discrete, continuous and grouped data including box plots
- appropriate measures of central tendency (median, mean, mode and modal class) and spread (range, including consideration of outliers) including quartiles and interquartile range

Notes: students should know and understand the terms: primary data, secondary data, discrete data and continuous data.

S5 apply statistics to describe a population

EzyMaths Activity	Activity Link
PS3.1 – Summary Statistics	► WATCH VIDED
PS3.1a – Summary Statistics	
PS3.2 – Calculating the Mean	► WATCH VIDED
PS3.2a – Calculating the Mean	TEST YOURSELF
PS3.3 – Calculating the Median	► WATCH VIDED
PS3.3a – Calculating the Median	
PS3.4 – Calculating the Mode	WATCH VIDED
PS3.4a – Calculating the Mode	E TEST YOURSELF
PS3.7 - Range	WATCH VIDED
PS3.7a - Range	

STATISTICS

Specification Reference

- **S4** interpret, analyse and compare the distributions of data sets from univariate empirical distributions through:
- appropriate graphical representation involving discrete, continuous and grouped data including box plots
- appropriate measures of central tendency (median, mean, mode and modal class) and spread (range, including consideration of outliers) including quartiles and interquartile range

Notes: students should know and understand the terms: primary data, secondary data, discrete data and continuous data.

S5 apply statistics to describe a population

EzyMaths Activity	Activity Link
PS3.5 – Averages from Frequency Tables	WATCH VIDED
PS3.5a – Averages from Frequency Tables	TEST YOURSELF
PS3.6 – Averages from a Grouped Frequency Table	WATCH VIDED
PS3.6a – Averages from a Grouped Frequency Table	₹ TEST YOURSELF
953.8 – Descriptive Statistics Problems	WATCH VIDED
PS3.8a – Descriptive Statistics Problems	E TEST YOURSELF

STATISTICS

Specification Reference	EzyMaths Activity	Activity Link
S4 interpret, analyse and compare the distributions of data sets from univariate empirical distributions through: appropriate graphical representation involving discrete,	PS4.3 – Quartiles and IQR	WATCH VIDED
continuous and grouped data including box plots appropriate measures of central tendency (median, mean, mode and modal class) and spread (range, including consideration of outliers) including quartiles and inter-	PS4.3a – Quartiles and IQR	TEST YOURSELF
quartile range Notes: students should know and understand the terms: Drimary data, secondary data, discrete data and	PS4.4 – Box Plots	WATCH VIDEO
continuous data. 35 apply statistics to describe a population	PS4.4a – Box Plots	TEST YOURSELF

STATISTICS

Specification Reference	EzyMaths Activity	Activity Link
	PS6.1 – Scatter Graphs	► WATCH VIDED
6 use and interpret scatter graphs of bivariate data	PS6.1a – Scatter Graphs	E TEST YOURSELF
recognise correlation know that it does not indicate causation	PS6.2 - Correlation	► WATCH VIDED
draw estimated lines of best fit	PS6.2a - Correlation	E TEST YOURSELF
make predictions	PS6.3 – Lines of Best Fit and Predictions	WATCH VIDED
interpolate and extrapolate apparent trends whilst knowing	PS6.3a – Lines of Best Fit and Predictions	E TEST YOURSELF
the dangers of so doing	PS6.4 – Limits of Correlation	► WATCH VIDED
	PS6.4a – Limits of Correlation	E TEST YOURSELF

PROBABILITY AND STATISTICS REVISION MATERIALS

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END OF SECTION ASSESSMENT



-	" Look at the If the number 7 ther machine, v	was input was input what would	achine. tod into the the output be?
ide does no	c ntify which of it belong to ti re th term	the follow the sequent t = 10/t -	ving terms ice defined by: + 4
A	14	c	76
0	54	6	104

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