

	2018 P1	2018 P2	2019 P1 Hard	2019 P2 Hard	2020 P1 hard	2020 P2	2021 P1	2021 P2	2022 P1 hard	2022 P2 hard	2023 P1	2023 P2	2024 P1 hard	2024 P2	2025 P1	2025 P2	% came up Per paper Per exam series
#1 Binomial Expansion - Integer Powers (year 1)						Q4											$\frac{1}{16} = 6.25\%$ $\frac{1}{8} = 12.5\%$
#2 Binomial Expansion - Negative and Fractional Powers	Q11		Q4		Q1		Q9			Q7		Q13	Q2				$\frac{7}{16} = 43.75\%$ $\frac{7}{8} = 87.5\%$
#3 Circles	Q6				Q11	Q14	Q7		Q3		Q10			Q14	Q2		$\frac{8}{16} = 50\%$ $\frac{7}{8} = 87.5\%$
#4 Differentiation Basic Techniques $x^n$ (year 1)	Q2							Q5				Q1		Q1		Q8	$\frac{5}{16} = 31.25\%$ $\frac{5}{8} = 62.5\%$
#5 Differentiation Advanced Techniques - Chain, Product & Quotient rule (yr 2)	Q5 Quotient	Q11 Chain	Q3, 12 Quotient & Product		Q9 Product	Q7, 13 Quotient	Q14 Quotient		Q8 Product	Q12 Quotient	Q15 Quotient		Q5 Quotient Decreasing	Q6 Chain	Q9 Product	Q15 Quotient	$\frac{15}{16} = 92.75\%$ $\frac{8}{8} = 100\%$
#6 Differentiation Application Calculations – Stationary/Turning Points, Inc, Dec and Concavity	Q2 Stationary (year 1)	Q11 Deceasing (year 2)	Q12 Maximum (year 2)		Q9 Stationary (year 2)	Q7 Minimum (year 2)		Q5 Stationary Inflection (year 1)	Q8 Maximum (year 2)	Q12 Stationary (year 2)	Q4/15 Stationary Turning (year 2)	Q1,5 Concave Turning Point (year 1)				Q8,15 Minimum (year 1 & 2)	$\frac{5}{16} = 31.25\%$ year 1 $\frac{4}{8} = 50\%$ $\frac{9}{16} = 56.25\%$ year 2 $\frac{6}{8} = 75\%$ $\frac{14}{16} = 87.5\%$ overall $\frac{8}{8} = 100\%$
#7 Differentiation – Implicit	Q9			Q11	Q15			Q8				Q7		Q15			$\frac{6}{16} = 37.5\%$ $\frac{6}{8} = 75\%$
#8 Differentiation – Parametric								Q13		Q16		Q9		Q10		Q5	$\frac{6}{16} = 37.5\%$ $\frac{5}{8} = 62.5\%$
#9 Differentiation –Tangents and Normals		Q13 Normal (year 2)						Q7,8 Tangent (Year 1) Normal (year 2)		Q16 Normal (Year 2)	Q4 Tangent (Year 2)	Q7 Normal (Year 2)	Q10 Tangent (Year 1)	Q15 Normal (Year 2)			$\frac{2}{16} = 12.5\%$ year 1 $\frac{2}{8} = 25\%$ $\frac{6}{16} = 37.5\%$ year 2 $\frac{5}{8} = 62.5\%$ $\frac{8}{16} = 50\%$ overall $\frac{5}{8} = 62.5\%$
#10 Differentiation – Modelling (max and min)				Q13					Q15						Q15		$\frac{3}{16} = 17.85\%$ $\frac{3}{8} = 37.5\%$
#11 Differentiation - Related Rates (connected rates of change)					Q14			Q14				Q11	Q7			Q9	$\frac{5}{16} = 31.25\%$ $\frac{5}{8} = 62.5\%$
#12 Differentiation from First Principles - Polynomials										Q4			Q4				$\frac{2}{16} = 12.5\%$ $\frac{2}{8} = 25\%$
#13 Differentiation from First Principles - Trigonometry		Q9									Q12						$\frac{2}{16} = 12.5\%$ $\frac{2}{8} = 25\%$
#14 Differentiation – x in terms of y		Q14	Q14														$\frac{1}{16} = 6.25\%$ $\frac{1}{8} = 12.5\%$
#15 Discriminant (watch out for 'hidden' Discriminant) (often comes up with circles, factor theorem, solving intersections or stationary points)	Q6 Q14 Hidden (2)	Q6				Q14 Hidden	Q7 Hidden			Q12 Q16 Hidden (2)	Q10		Q8	Q15 Hidden	Q4		$\frac{11}{16} = 68.75\%$ $\frac{7}{8} = 87.5\%$
#16 Exponential Modelling	Q12	Q14 differentiation	Q7		Q8	Q9	Q8		Q10			Q4			Q11	Q9	$\frac{10}{16} = 62.5\%$ $\frac{7}{8} = 87.5\%$
#18 Factor Theorem, Polynomial Division and Factorising Cubics		Q6 (+factorise)	Q1 (+factorise)			Q6, 8	Q1		Q2		Q2 (+factorise)		Q1		Q4 (+factorise)	Q1,Q7 (+factorise)	$\frac{11}{16} = 68.75\%$ $\frac{8}{8} = 100\%$
#19 Functions Basics - Composite, Inverse and Piecewise Calculations		Q1 Composite Inverse		Q6 Piecewise Inverse	Q4 Inverse Composite		Q2 Composite Inverse			Q10 Composite Inverse	Q7 Composite Inverse		Q8			Q8 Composite	$\frac{8}{16} = 50\%$ $\frac{8}{8} = 100\%$
#20 Functions - Domain and Range		Q1 Inverse	Q5		Q9		Q2			Q10 Composite Inverse	Q7 (root)		Q8 composite			Q12	$\frac{8}{16} = 50\%$ $\frac{8}{8} = 100\%$
#21 Functions - Modulus Function		Q3 graphs				Q11		Q11		Q1		Q12 (Modelling)	Q6			Q12	$\frac{7}{16} = 43.75\%$ $\frac{7}{8} = 87.5\%$
#22 Graphs – Graphing Functions (Quadratic, Cubic Reciprocal, Root Quartic, Exponential, Logarithmic, Modulus, Trig)		Q3 Modulus	Q5 Quadratic			Q11 Modulus		Q11 Modulus		Q2 Exponential			Q6 Modulus			Q12 Modulus	$\frac{7}{16} = 43.75\%$ $\frac{7}{8} = 87.5\%$
#23 Graphs – Intersections Of Graphs Via Algebra (simultaneous equations)	Q6					Q5,14	Q7		Q11		Q10		Q10	Q15	Q12		$\frac{9}{16} = 56.25\%$ $\frac{7}{8} = 87.5\%$
#24 Graphs – Intersections Via Solving Graphically		Q6	Q2			Q11			Q6			Q12	Q6		Q7	Q8,12	$\frac{9}{16} = 56.25\%$ $\frac{7}{8} = 87.5\%$
#25 Graphs – Given Graph Find Polynomial Equation (can be from points, roots or vertex)									Q6						Q7		$\frac{2}{16} = 12.5\%$ $\frac{2}{8} = 25\%$
#26 Graphs – Derivative Graphs (Stationary Points/Inc/Dec and Concavity)									Q6						Q7		$\frac{2}{16} = 12.5\%$ $\frac{2}{8} = 25\%$
#27 Indices (this comes up as a small part of integ or diff usually, not often as a topic on its own)				Q1		Q7 (with diff)	Q14 (with diff)			Q8 (with integ)	Q1 (with integ)		Q9		Q5		$\frac{7}{16} = 43.75\%$ $\frac{7}{8} = 87.5\%$

#28 Inequalities (linear, quadratic and rational)			Q3 Rational			Q13 Rational				Q12 Quadratic	Q10 Quadratic		Q8 Quadratic			$\frac{5}{16} = 31.25\%$ $\frac{5}{8} = 62.5\%$	
#29 Inequalities On Graphs								Q11	Q6			Q12				$\frac{3}{16} = 18.75\%$ $\frac{3}{8} = 37.5\%$	
#30 Graphs - Inequality Shading Regions					Q7											$\frac{1}{16} = 6.25\%$ $\frac{1}{8} = 12.5\%$	
#31 Integration As A Limit				Q5					Q4			Q5		Q5		$\frac{4}{16} = 25\%$ $\frac{4}{8} = 50\%$	
#32 Integration - Basic Techniques (year 1)						Q8				Q1		Q10			Q2	$\frac{4}{16} = 25\%$ $\frac{4}{8} = 50\%$	
#33 Integration - Finding Areas		Q13 (year 1)	Q8, 13 (year 1 & 2)			Q12 (year 2) parametric	Q11 (year 2)	Q7 (year 1)	Q16 (year 2) parametric	Q8 (year 1)		Q10 (year 1)	Q11 (year 2)	Q16 (year 2)	Q15 (year 2)	$\frac{12}{16} = 75\%$ $\frac{7}{8} = 87.5\%$	
#34 Integration – Reverse Chain Rule	Q7		Q13		Q10	Q6,12						Q10		Q12		$\frac{7}{16} = 43.75\%$ $\frac{5}{8} = 62.5\%$	
#35 Integration By Substitution	Q13 (or parts)			Q14	Q10			Q12				Q13	Q13 Trig Sub	Q16 Trig Sub	Q15 Trig Sub	$\frac{8}{16} = 50\%$ $\frac{7}{8} = 87.5\%$	
#36 Integration By Parts		Q13					Q11		Q12				Q11	Q13 (or substit)		$\frac{5}{16} = 31.25\%$ $\frac{5}{8} = 62.5\%$	
#37 Integration - Differential Equations	Q10	Q10		Q14	Q14			Q14		Q15		Q11	Q7 and 14	Q12	Q10	$\frac{11}{16} = 68.75\%$ $\frac{8}{8} = 100\%$	
#38 Integration – Parametric Areas						Q12			Q16							$\frac{2}{16} = 12.5\%$ $\frac{2}{8} = 25\%$	
#39 Logs (using log rules) including $\ln$ and exponentials			Q9	Q8	Q2	Q3, 4		Q3		Q2	Q6	Q3			Q3	$\frac{10}{16} = 62.5\%$ $\frac{6}{8} = 75\%$	
#40 Logarithmic Linear Transformations				Q9				Q10			Q11			Q13		$\frac{4}{16} = 25\%$ $\frac{4}{8} = 50\%$	
#41 Numerical Methods: Iteration	Q4 (+cobweb)			Q11 Derivative		Q7 Derivative	Q4		Q8 Derivative		Q15 (Derivative +cobweb)		Q6 Derivative	Q9 Derivative		$\frac{8}{16} = 50\%$ $\frac{8}{8} = 100\%$	
#42 Numerical Methods: Newton Raphson		Q5								Q6			Q3			$\frac{3}{16} = 18.75\%$ $\frac{3}{8} = 37.5\%$	
#43 Partial Fractions (often comes up with other topics such as integration)		Q11	Q13				Q9			Q14		Q10		Q12	Q7	$\frac{7}{16} = 43.75\%$ $\frac{7}{8} = 87.5\%$	
#44 Parametric Equations - Cartesian & Simultaneous Equations	Q14 cartesian + graph			Q4 cartesian			Q13 cartesian			Q16 cartesian + graph		Q9 cartesian			Q5 cartesian	$\frac{6}{16} = 37.5\%$ $\frac{6}{8} = 75\%$	
#45 Parametric Modelling						Q12								Q10		$\frac{2}{16} = 12.5\%$ $\frac{2}{8} = 25\%$	
#46 Domain and Range - Parametric Equations	Q14									Q16						$\frac{2}{16} = 12.5\%$ $\frac{2}{8} = 25\%$	
#47 Proof - Algebraic, Counterexample & Exhaustion		Q3 Counter example	Q10 Algebraic			Q16 Algebraic	Q15 Exhaustion		Q7 Algebraic	Q11 Algebraic	Q14 Algebraic		Q15 algebraic		Q8 algebraic	$\frac{9}{16} = 56.25\%$ $\frac{8}{8} = 100\%$	
#48 Proof - Spotting errors in working out												Q15	Q15		Q8	$\frac{3}{16} = 18.75\%$ $\frac{3}{8} = 37.5\%$	
#49 Proof - Contradiction					Q16		Q15		Q7			Q15	Q15			$\frac{5}{16} = 31.25\%$ $\frac{5}{8} = 62.5\%$	
#50 Quadratic Modelling	Q8						Q12							Q9	Q11	$\frac{4}{16} = 25\%$ $\frac{4}{8} = 50\%$	
#51 Quadratics – Factorising, Solving, Completing The Square (watch out for hidden quadratics)			Q5				Q2									$\frac{2}{16} = 12.5\%$ $\frac{2}{8} = 25\%$	
#52 Radians – Sectors (can come up with optimisation too)	Q3			Q3	Q11			Q6	Q15		Q8		Q11		Q15	Q4	$\frac{9}{16} = 56.25\%$ $\frac{7}{8} = 87.5\%$
#53 Radians - Small angle Approximation	Q1		Q2, 14					Q4			Q4		Q11	Q5		Q6	$\frac{8}{16} = 50\%$ $\frac{6}{8} = 75\%$
#54 Sequences and Series - Arithmetic		Q4 (arithmetic & geometric)			Q5			Q1	Q13			Q8 (trig)		Q2	Q3		$\frac{7}{16} = 43.75\%$ $\frac{7}{8} = 87.5\%$
#55 Sequences and Series - Geometric			Q11	Q8	Q5	Q15	Q5	Q9		Q15	Q9		Q9				$\frac{9}{16} = 56.25\%$ $\frac{6}{8} = 75\%$
#56 Sequences and Series - Recursive Series		Q4			Q13		Q3			Q3		Q2		Q4			$\frac{6}{16} = 37.5\%$ $\frac{6}{8} = 75\%$
#57 Sequences and Series - $\Sigma$ Notation		Q4		Q8	Q4			Q9		Q3		Q2		Q4			$\frac{7}{16} = 43.75\%$ $\frac{7}{8} = 87.5\%$

#58 Straight Line Graphs (often comes up with other topics such as tangents to circles or curves and with integration finding areas)	Q6	Q13		Q7				Q7				Q10				$\frac{5}{16} = 31.25\%$ $\frac{4}{8} = 50\%$
#59 Straight Line Graphs Modelling or Power Modelling				Q7					Q5					Q6		$\frac{3}{16} = 18.75\%$ $\frac{3}{8} = 37.5\%$
#60 Surds	Q13				Q7		Q9			Q15			Q3			$\frac{5}{16} = 31.25\%$ $\frac{5}{8} = 62.5\%$
#61 Transformations $af(bx + c) + d$ or $ f(x) $ or $f( x )$			Q5		Q9			Q11	Q1					Q1		$\frac{5}{16} = 31.25\%$ $\frac{5}{8} = 62.5\%$
#62 Trapezium Rule				Q2		Q1	Q11			Q5	Q5					$\frac{5}{16} = 31.25\%$ $\frac{5}{8} = 62.5\%$
#63 Trig – Sine and Cosine Rule					Q11		Q6								Q4	$\frac{3}{16} = 18.75\%$ $\frac{3}{8} = 37.5\%$
#64 Trig Identities Basics (year 1) These do not come up on their own usually , but are a pre-requisite for year 2 knowledge																$\frac{0}{16} = 0\%$ $\frac{0}{8} = 0\%$
#65 Trig Identities Advanced (year 2)		Q12 Reciprocal Quadratic		Q12 Addition	Q12 Reciprocal	Q10 Addition	Q10 Double		Q14 Addition			Q14 Double	Q8 Reciprocal Quadratic	Q14 Addition		$\frac{9}{16} = 56.25\%$ $\frac{8}{8} = 100\%$
#66 Trig Solving Basics (year 1)															Q13	$\frac{1}{16} = 6.25\%$ $\frac{1}{8} = 12.5\%$
#67 Trig Solving Advanced (year 2)	Q7 Reciprocal Addition	Q7,12 Reciprocal Quadratic Addition	Q6 Double	Q12 Addition	Q12 Reciprocal	Q10 Addition	Q10 Double		Q14 Addition			Q14 Double	Q8 Reciprocal Quadratic	Q14 Addition		$\frac{11}{16} = 68.75\%$ $\frac{8}{8} = 100\%$
#68 Trig – Harmonic Form	Q8	Q7			Q6			Q15				Q8				$\frac{5}{16} = 31.25\%$ $\frac{4}{8} = 50\%$
#69 Trig Graphs to equation																$\frac{0}{16} = 0\%$ $\frac{1}{8} = 12.5\%$
#70 Trig Modelling	Q8 (year 1)		Q12 (year 2)		Q6 (year 2)			Q15 (year 2)		Q9	Q13		Q12			$\frac{7}{16} = 43.75\%$ $\frac{7}{8} = 87.5\%$
#71 Inverse trig																$\frac{0}{16} = 0\%$ $\frac{1}{8} = 12.5\%$
#72 Vectors Pure - 2D and 3D Techniques		Q2 3D			Q3 3D		Q6 3D		Q9 3D	Q13 3D	Q3 3D	Q2 2D	Q7 3D	Q10 3D		$\frac{9}{16} = 56.25\%$ $\frac{8}{8} = 100\%$
#73 Vectors Pure – Modelling Mechanics Type (displacement, distance, velocity, speed & bearings)												Q6				$\frac{1}{16} = 6.25\%$ $\frac{1}{8} = 12.5\%$
#74 Vectors Pure - Problem Solving/Geometry				Q10		Q2									Q14	$\frac{3}{16} = 18.75\%$ $\frac{3}{8} = 37.5\%$

	2018 P3	2019 P3	2020 P3	2021 P3	2022 P3	2023 P3	2024 P3	2025 P3	% came up
#1 Binomial Distribution (without hypothesis testing)	Q3	Q4		Q1	Q1			Q3	$\frac{5}{8} = 62.5\%$
#2 Correlation and Regression (without hypothesis testing)									$\frac{1}{8} = 12.5\%$
#3 Data - Large Data Set	Q1	Q2, Q4	Q2	Q3	Q3	Q3	Q3	Q4	$\frac{8}{8} = 100\%$
#4 Data Calculations - Mean, Standard Deviation, Variance, Quartiles and Percentiles	Q4	Q2, Q4	Q3	Q3	Q3	Q3	Q3	Q1	$\frac{8}{8} = 100\%$
#5 Data Representation - Box Plots		Q2	Q3						$\frac{2}{8} = 25\%$
#6 Data Representation - Cumulative Frequency									$\frac{0}{8} = 0\%$
#7 Data Representation - Histograms									$\frac{0}{8} = 0\%$
#8 Hypothesis Testing - Binomial Distribution					Q2, Q4	Q2	Q4	Q3	$\frac{5}{8} = 62.5\%$
#9 Hypothesis Testing - Normal Distribution	Q5	Q5 (normal approx)		Q5	Q4			Q5	$\frac{5}{8} = 62.5\%$
#10 Hypothesis Testing - Correlation	Q2	Q3	Q2	Q2	Q6		Q2	Q4	$\frac{7}{8} = 87.5\%$
#11 Normal Distribution (without hypothesis testing)			Q5		Q5		Q5		$\frac{3}{8} = 37.5\%$
#12 Normal Approximation		Q5			Q1				$\frac{2}{8} = 25\%$
#13 Probability Distributions	Q3		Q4	Q6		Q5		Q6	$\frac{5}{8} = 62.5\%$
#14 Probability - Venn Diagram without Conditional Probability									$\frac{0}{8} = 0\%$
#15 Probability - Venn Diagrams with Conditional Probability			Q1	Q4	Q5	Q1	Q6		$\frac{5}{8} = 62.5\%$
#16 Probability - Tree Diagrams		Q1						Q1	$\frac{2}{8} = 25\%$
#17 Probability - Two Way Tables					Q5				$\frac{1}{8} = 12.5\%$
#18 Sampling Methods	Q4			Q1					$\frac{2}{8} = 25\%$
#1 Connected Particles - Cars									$\frac{0}{8} = 0\%$
#2 Connected Particles - Lifts									$\frac{0}{8} = 0\%$
#3 Connected Particles - Pulleys (Vertical and Horizontal)									$\frac{0}{8} = 0\%$
#4 Connected Particles - Pulleys (Inclined)		Q3		Q2					$\frac{2}{8} = 25\%$
#5 Forces - Flat Planes (vertical and horizontal)						Q2	Q1	Q6	$\frac{3}{8} = 37.5\%$
#6 Forces - Flat Planes (diagonal)	Q7							Q2	$\frac{2}{8} = 25\%$
#7 Forces - Inclined Planes			Q1		Q2		Q3		$\frac{3}{8} = 37.5\%$
#8 Kinematics - Non-Constant Acceleration (usually comes up with vectors)									$\frac{0}{8} = 0\%$
#9 Moments - Flat	Q9								$\frac{1}{8} = 12.5\%$
#10 Moments - Incline		Q4	Q4	Q3	Q4	Q6	Q6	Q6	$\frac{7}{8} = 87.5\%$
#11 Projectiles	Q10	Q5	Q5	Q4	Q5	Q5	Q5	Q5	$\frac{8}{8} = 100\%$
#12 SUVAT (usually comes up combined with Pulleys, not on its own)						Q1			$\frac{1}{8} = 12.5\%$
#13 Speed, Distance, Time Graphs				Q2			Q2		$\frac{2}{8} = 25\%$
#14 Vectors - Forces and Angles (usually comes up with projectile questions)									$\frac{0}{8} = 0\%$
#15 Vectors - Displacement, velocity and total distance (if this comes up it is usually for pure)									$\frac{0}{8} = 0\%$
#16 Vectors - Kinematics (non-constant accel)	Q6	Q1	Q3	Q5	Q1	Q3	Q4	Q4	$\frac{8}{8} = 100\%$
#17 Vectors - SUVAT	Q8	Q2	Q2	Q1	Q3	Q4		Q3	$\frac{7}{8} = 87.5\%$