

<b>X</b> - no coverage	<b>L</b> - very limited coverage	<b>P</b> - partial coverage	<b>✓</b> - covered
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Subject	Coverage in common school examination systems					
	GCSE	IB Standard	SAT	A-level	IB Higher	AP Calculus
<b>1. Equations and inequalities</b>						
a) Numbers and expressions Real numbers Expansion and factorization of a polynomial	✓	✓	✓	✓	✓	-
b) Linear inequalities	✓	✓	✓	✓	✓	-
c) Quadratic equations	✓	✓	✓	✓	✓	-
<b>2. Quadratic functions</b>						
a) Quadratic functions and their graphs	✓	✓	✓	✓	✓	-
b) Variation in values of quadratic functions Maximum value and minimum value of a quadratic function Quadratic inequalities	✓	✓	✓	✓	✓	-
<b>3. Figures and measurements</b>						
a) Trigonometric ratios Sine, cosine, tangent Relations between trigonometric ratios	P	✓	✓	✓	✓	-
b) Trigonometric ratios and figures Sine formulas, cosine formulas Measurement of figures	P	✓	✓	✓	✓	-
<b>4. Plane figures</b>						
Properties of triangles Properties of circles	✓	✓	✓	✓	✓	-
<b>5. Set theory and logic</b>						
Sets and the number of elements Propositions and proofs	X	P	✓	✓	✓	-
<b>6. The number of possible outcomes and probability</b>						
Permutations, Combinations Probability and its fundamental laws Independent trials and probability	P	X	✓	✓	✓	-
<b>7. Expressions and proofs / equations of higher degree</b>						
a) Expressions and proofs Division of polynomials, fractional expressions Proofs of equalities and inequalities	X	✓	P	✓	✓	-
b) Equations of higher degree Complex numbers and quadratic equations Equations of higher degree	X	X	✓	✓	✓	-
<b>8. Figures and equations</b>						
a) Points and lines Coordinates of a point Equation of a line	✓	✓	✓	✓	✓	-
b) Circles Equation of a circle Relative position of a circle and a line	✓	P	✓	✓	P	-
<b>9. Various functions</b>						
a) Trigonometric functions General angles Trigonometric functions and their basic properties Addition theorems for trigonometric functions	L	✓	✓	✓	✓	-
b) Exponential and logarithmic functions Expansion of exponents Exponential functions Logarithmic functions	X	✓	✓	✓	✓	-

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<b>10. The concept of differentiation / integration</b>						
a) The concept of differentiation Differential coefficients and derivatives Applications of the derivative Tangent lines, increase/decrease in function value	X	X	X	✓	✓	✓
b) The concept of integration Indefinite integrals and definite integrals Areas of figures	X	X	X	✓	✓	✓
<b>11. Sequences (Progressions) of numbers</b>						
a) Sequences and their sums Arithmetic sequences (Arithmetical progressions) and geometric sequences (geometrical progressions) Various sequences	X	✓	✓	✓	✓	-
b) Recurrence formulae and mathematical induction Recurrence formulae and sequences Mathematical induction	X	P	P	✓	✓	-
<b>12. Vectors</b>						
Vectors in a plane Vectors and their operations Scalar product (Inner product) of vectors	P	✓	P	✓	✓	-
<b>13. Limits</b>						
Limits of sequences Limit of $\{r^n\}$ Sum of an infinite geometric series	X	✓	✓	✓	✓	-

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