T1 standard form	T1 exponent	T1 logarithm
T1 natural logarithm	T1 change of base	T1 sequence
T1 arithmetic sequence	T1 common difference	T1 series

T1 The exponent to which a specified base must be raised to produce a given positive number.	T1 A value indicating the power to which a base is raised.	T1 A number written as a $\times$ 10^k, where $1 \leq$ a $<$ 10 and k is an integer.
T1 An ordered list of numbers, called terms, following a rule.	T1 The rule log_a x = log_b x $\div$ log_b a, used to find a logarithm in any base.	T1 The logarithm to base e, the inverse of the exponential function with base e.
T1 A sum of the terms of a sequence, which may contain finitely or infinitely many terms.	T1 The constant amount added to each term to obtain the next term in an arithmetic sequence.	T1 A sequence whose consecutive terms differ by a constant amount.

T1 sigma notation	T1 geometric sequence	T1 common ratio
T1 converge	T1 compound interest	T1 depreciation
T1 binomial theorem	T1 binomial coefficient	T1 Pascal's triangle

T1 The factor multiplying each term to obtain the next term in a geometric sequence.	T1 A sequence in which each term is obtained by multiplying the previous term by a fixed common ratio.	T1 A short way to write a sum using the Greek letter sigma, with the first and last values of the counter below and above it.
T1 A reduction in the value of an asset over time, often modelled as a percentage decrease.	T1 Interest calculated on the original principal together with previously accumulated interest.	T1 To approach a definite limiting value or object as a sequence, process or series progresses.
T1 A triangle of numbers in which each number is the sum of the two above it; row n gives the coefficients of (a + b)^n.	T1 The number of ways to choose a specified number of items from a set, also appearing in a binomial expansion.	T1 The rule that gives every term in the expansion of (a + b)^n using binomial coefficients.

T1 proof	T1 permutation	T1 combination
T1 partial fraction	T1 complex number	T1 complex conjugate
T1 Argand diagram	T1 modulus	T1 argument

T1 A selection of items in which their order is not significant.	T1 An ordered arrangement of selected objects, in which changing the order gives a different arrangement.	T1 A logical argument showing that a statement is true in every case.
T1 A complex number with the same real part and the opposite imaginary part as another complex number.	T1 A number expressible as a real part plus an imaginary part, using i with i squared equal to minus one.	T1 Simpler rational expressions whose sum equals a given rational expression.
T1 An angle describing the direction of a nonzero complex number from the positive real axis in the complex plane.	T1 The non-negative magnitude of a number; for a real number, its distance from zero.	T1 A diagram showing complex numbers as points, with the real part across and the imaginary part up.

T1 de Moivre's theorem	T1 proof by induction	T1 proof by contradiction
T1 counterexample	T2 function	T2 gradient
T2 domain	T2 range	T2 composite function

T1 A proof that assumes the statement is false and shows that this leads to something impossible.	T1 A proof that a statement holds for n = 1 and that if it holds for n = k it holds for n = k + 1, so it holds for all positive integers.	T1 The rule that (r(cos θ + i sin θ))^n = r^n(cos nθ + i sin nθ).
T2 The change in the vertical coordinate divided by the change in the horizontal coordinate.	T2 A mapping that assigns exactly one output to each allowed input.	T1 A specific example that shows a general claim is false.
T2 A function formed by applying one function to the output of another.	T2 The set of output values actually attained by a function on its stated domain.	T2 The set of input values for which a function is defined.

T2 inverse function	T2 quadratic function	T2 vertex
T2 discriminant	T2 asymptote	T2 exponential function
T2 logarithm	T2 polynomial	T2 remainder theorem

T2 A corner or meeting point of edges, a turning point of a parabola, or a node in a graph, depending on the context.	T2 A function of the form ax^2 + bx + c with a not zero, whose graph is a parabola.	T2 A function that reverses another function's mapping on a domain where that mapping is one-to-one.
T2 A function in which the variable appears in an exponent, such as a fixed positive base raised to that variable.	T2 A line that a curve approaches arbitrarily closely as its input or output tends to a particular limit.	T2 The value b squared minus 4ac, which determines the nature of a quadratic equation's roots.
T2 The result that dividing a polynomial f(x) by x minus a leaves remainder f(a).	T2 An expression formed by adding terms with non-negative integer powers of its variables.	T2 The exponent to which a specified base must be raised to produce a given positive number.

T2 factor theorem	T2 even function	T2 odd function
T3 midpoint	T3 slant height	T3 pyramid
T3 cone	T3 sphere	T3 hemisphere

T2 A function satisfying f(−x) = −f(x) on a symmetric domain; its graph has rotational symmetry through 180 degrees about the origin.	T2 A function satisfying f(−x) = f(x) whenever x is in its symmetric domain; its graph is symmetric about the vertical axis.	T2 A polynomial has a factor x minus a if and only if its value at a is zero.
T3 A solid with a polygon base and triangular faces that meet at a single point, the apex.	T3 The distance from the apex of a cone or pyramid down its sloping surface to the edge of the base.	T3 The point halfway between the endpoints of a line segment.
T3 One half of a sphere.	T3 A three-dimensional shape whose surface points are all the same distance from its centre.	T3 A solid with a circular base and a curved surface that narrows to a vertex.

T3 space diagonal	T3 hypotenuse	T3 angle of elevation
T3 angle of depression	T3 bearing	T3 sine rule
T3 cosine rule	T3 radian	T3 sector

T3 The angle measured upwards from a horizontal line to the line of sight to an object.	T3 The side opposite the right angle in a right-angled triangle.	T3 A line joining two corners of a solid that passes through its inside, not along a face.
T3 The rule that each side of a triangle divided by the sine of its opposite angle has the same value.	T3 A direction measured as an angle clockwise from north, usually written with three digits.	T3 The angle measured downwards from a horizontal line to the line of sight to an object.
T3 A region of a circle bounded by two radii and the arc between them.	T3 The angle subtended at a circle's centre by an arc equal in length to its radius.	T3 The rule relating a triangle's sides and an angle: one side squared equals the sum of the other two sides squared minus twice their product times the cosine of the included angle.

T3 segment	T3 unit circle	T3 identity
T3 double angle identity	T3 period	T3 amplitude
T3 principal axis	T3 principal value	T3 inverse function

T3 An equation that is true for every allowed value of its variables.	T3 A circle with radius one, usually centred at the origin.	T3 A region of a circle bounded by a chord and the arc joining its endpoints.
T3 The maximum displacement from an equilibrium position.	T3 The time taken for one complete oscillation or cycle.	T3 An identity giving sin 2x, cos 2x or tan 2x in terms of the functions of x.
T3 A function that reverses another function's mapping on a domain where that mapping is one-to-one.	T3 The single value an inverse trigonometric function gives, from its restricted range; other solutions come from symmetry.	T3 The horizontal line midway between the maximum and minimum of a periodic graph.

T3 vector	T3 scalar	T3 magnitude
T3 unit vector	T3 position vector	T3 scalar product
T3 vector product	T3 direction vector	T3 skew

T3 The size or numerical value of a quantity.	T3 A quantity described by magnitude alone, with no direction.	T3 A quantity represented by both magnitude and direction, or by an ordered set of components.
T3 The sum of the products of corresponding vector components, equal to the product of their magnitudes and the cosine of their angle.	T3 The vector from the origin to a point, giving the point's position.	T3 A vector whose magnitude is one.
T3 Describing lines in three-dimensional space that are neither parallel nor intersecting and do not lie in one plane.	T3 A nonzero vector indicating the direction of a line or movement.	T3 The cross product of two three-dimensional vectors, perpendicular to both with magnitude equal to their magnitudes times the sine of the angle between them.

T3

normal vector

T4

population

T4

sample

T4

discrete data

T4

continuous data

T4

outlier

T4

mean

T4

median

T4

mode

T4 A subset of a population selected for observation, measurement or analysis.	T4 The entire set of individuals, items or outcomes about which a statistical study seeks information.	T3 A vector perpendicular to a plane (or to a line in two dimensions).
T4 An observation unusually far from the rest of the data or from the pattern expected under a model.	T4 Data that can take any value in a range, such as height or time.	T4 Data that can take only separate values, such as counts.
T4 The value or category occurring most frequently in a data set.	T4 The middle value when data are arranged in order, or the mean of the two middle values for an even number of observations.	T4 The sum of a set of values divided by the number of values.

T4 quartile	T4 interquartile range	T4 standard deviation
T4 variance	T4 cumulative frequency	T4 box plot
T4 scatter diagram	T4 correlation coefficient	T4 regression line

T4 A measure of spread equal to the square root of the variance.	T4 The upper quartile minus the lower quartile, measuring the spread of the middle half of ordered data.	T4 One of the three boundary values that divide ordered data into four parts of approximately equal size.
T4 A display of a distribution using its median and quartiles, with whiskers drawn according to a stated rule.	T4 The running total of frequencies up to each class boundary.	T4 A measure of spread based on the squared deviations of values from their mean.
T4 The line of best fit found by least squares, used to predict one variable from another.	T4 A number r from -1 to 1 measuring the strength and direction of a linear relationship.	T4 A graph of paired data plotted as points to show any relationship between two variables.

T4 interpolation	T4 extrapolation	T4 probability
T4 sample space	T4 mutually exclusive	T4 conditional probability
T4 independent	T4 tree diagram	T4 discrete random variable

T4 A numerical measure of how likely an event is, ranging from zero to one.	T4 Estimating a value outside the range of observed data by extending a pattern or model.	T4 Predicting a value within the range of the data used to make a model.
T4 The probability of an event given that another event has occurred.	T4 Describing events that cannot occur together in the same trial.	T4 The set of all possible outcomes of a random experiment.
T4 A variable whose separate possible values each have a probability.	T4 A branching diagram showing possible stages, outcomes or classifications and their relationships.	T4 Describing quantities, events or choices that do not depend on one another in the relationship being considered.

T4 expected value	T4 normal distribution	T4 standardised value
T4 Bayes' theorem	T4 continuous random variable	T4 probability density function
T5 secant	T5 tangent	T5 derivative

T4 The number of standard deviations a value lies from the mean, z = (x - mean)/standard deviation.	T4 A continuous, symmetric bell-shaped probability distribution specified by its mean and standard deviation.	T4 The probability-weighted mean of the possible values of a random variable.
T4 A function whose area over an interval gives the probability that a continuous random variable falls within that interval.	T4 A random variable modelled over a continuous range, with probabilities represented by areas under a density function.	T4 A rule for reversing a conditional probability, finding P(A given B) from P(B given A).
T5 The instantaneous rate of change of a function with respect to its input.	T5 A straight line that touches a curve at a point and has the same direction there.	T5 A straight line passing through two distinct points on a curve.

T5 normal	T5 chain rule	T5 product rule
T5 quotient rule	T5 second derivative	T5 stationary point
T5 point of inflection	T5 displacement	T5 velocity

T5 The differentiation rule for two multiplied functions: the first times the derivative of the second plus the second times the derivative of the first.	T5 The rule for differentiating a composite function by multiplying the appropriate derivatives.	T5 A line perpendicular to a surface at a given point.
T5 A point on a differentiable curve where its derivative is zero.	T5 The derivative of a function's first derivative, describing how its gradient changes.	T5 The differentiation rule for a ratio: the denominator times the numerator's derivative minus the numerator times the denominator's derivative, divided by the denominator squared.
T5 The rate of change of displacement.	T5 The straight-line change in position, including direction.	T5 A point on a curve where its concavity changes.

T5 integration	T5 indefinite integral	T5 definite integral
T5 first principles	T5 implicit differentiation	T5 related rates
T5 partial fraction	T5 volume of revolution	T5 differential equation

T5 The limit of sums of function values multiplied by interval widths, representing signed area under a curve over an interval.	T5 The family of antiderivatives of a function, usually expressed with an arbitrary constant.	T5 Finding an integral, such as an antiderivative or the accumulated value over an interval.
T5 Rates of change of linked quantities, connected by the chain rule.	T5 Differentiating an equation involving two variables while treating one variable as a function of the other.	T5 Finding a derivative as the limit of the gradient of a secant as the interval shrinks to zero.
T5 An equation involving a function and one or more of its derivatives.	T5 The volume of a solid formed by rotating a plane region around an axis.	T5 Simpler rational expressions whose sum equals a given rational expression.

T5 Euler's method	T5 separation of variables	T5 integrating factor
T5 Maclaurin series	T6 mathematical exploration	T6 internal assessment
T6 moderation	T6 presentation	T6 mathematical communication

T5 A factor used to multiply a differential equation so that an expression becomes a complete derivative and can be integrated.	T5 Solving a differential equation by moving all y terms to one side and all x terms to the other, then integrating.	T5 A numerical method that solves a differential equation step by step along tangent lines.
T6 Coursework marked by the student's own teacher, with a sample checked by the IB.	T6 The IB mathematics internal assessment: a written investigation of about 12 to 20 pages on a topic the student chooses.	T5 A power series that approximates a function near x = 0, built from its derivatives at 0.
T6 Exploration criterion B: correct notation, symbols and terms, defined variables and labelled graphs and tables.	T6 Exploration criterion A: how well the work is organised, coherent and concise.	T6 The IB's check of a sample of a school's internal assessment marking, which can raise or lower the marks.

T6 personal engagement	T6 reflection	T6 use of mathematics
T6 research question	T6 proposal	T6 regression line
T6 residual	T6 assumption	

T6 Exploration criterion E: relevant, correct mathematics at the level of the course, used with understanding.	T6 Careful consideration of an experience or action to understand it and improve future decisions.	T6 Exploration criterion C: evidence of the student's own thinking, decisions and approach.
T6 The line of best fit found by least squares, used to predict one variable from another.	T6 A short plan of an investigation: its aim, question, methods and sources, agreed before the work starts.	T6 The specific question an investigation is designed to answer.
	T6 A statement accepted as a starting point for reasoning, analysis or a model.	T6 An observed value minus the value predicted by a model.