continuity	convergence	gradient
Jacobian	rank	eigenvalue
homomorphism	field	compact

The vector of first partial derivatives of a scalar-valued function.	Approach to a finite limiting value.	Agreement of a function value with its limit.
A scalar satisfying $Av=\lambda v$ for a nonzero v.	The dimension of the column image, equivalently the number of pivots.	The local area or volume scaling in a coordinate change.
Every open cover has a finite subcover.	A commutative ring where each nonzero element has an inverse.	A map preserving the relevant operation.

supremum	recurrence	mutually exclusive
analytic	residue	initial condition
characteristic root	coset	normal subgroup

Events that cannot happen together.	A rule linking a sequence term to earlier terms.	The least upper bound of a set.
A specified starting value used to determine a particular solution of an equation or model.	The coefficient of $(z-a)^{-1}$, not necessarily the leading or largest negative-power term.	Complex differentiable throughout a neighbourhood.
A subgroup invariant under conjugation by every group element.	The difference lies in H.	A root of the polynomial governing exponential solutions.

ideal	torsion	irreducible polynomial
extension degree	congruence	totient
Cauchy sequence	uniform convergence	relative topology

A positive-degree polynomial with no factorisation into smaller positive degrees over the stated field.	An element is annihilated by a nonzero scalar in the stated module.	An additive subgroup of a ring absorbing multiplication by all ring elements.
The count of residues coprime to the positive integer modulus.	Equality of residues because the modulus divides their difference.	The dimension of an extension field as a vector space over its base field.
Open subsets inherited by intersecting a subspace with ambient open sets.	Convergence with one error threshold index valid at every point of the domain.	A sequence whose sufficiently late terms are arbitrarily close to one another.

connectedness	radius of convergence	remainder
improper integral	principal value	Hessian
Lagrange multiplier	divergence	conservative field

The difference between a function and its finite approximation.	For a power series centred at a, the distance R within which the series converges absolutely and beyond which it diverges; endpoints require separate checks.	Absence of a separation into disjoint nonempty relatively open subsets.
The matrix of second partial derivatives used to study local curvature.	A limit using prescribed symmetric cancellation that may exist when an ordinary improper integral diverges.	An integral defined by a limit because an integration interval is unbounded or the integrand is unbounded at a boundary or interior point.
A vector field equal to a scalar potential gradient with path-independent line integrals.	The sum of a vector field's coordinate-wise partial derivatives measuring local outward flow.	A scalar relating objective and regular constraint gradients at a constrained extremum.

bijection	involution	preimage
equivalence relation	posterior probability	standard error
similarity	focus	phase angle

The set of inputs whose outputs lie in a specified target set.	A function whose composition with itself is the identity on its domain.	A function that is both injective and surjective between its specified sets.
The standard deviation of a statistic's sampling distribution, often estimated from a sample.	A probability conditional on the observed evidence after accounting for prior proportions.	A relation that is reflexive, symmetric and transitive.
The angle offset inside a periodic function argument, defined modulo a full period.	A fixed point used in a conic distance definition.	A feature or quality that two things share.

parametric curve	orthogonal	cross product
integrating factor	particular solution	weak composition
loop invariant	Jacobian matrix	local inverse

An oriented perpendicular vector in three dimensions whose magnitude is spanned parallelogram area.	Having a zero dot product in a real inner-product space.	A curve whose coordinates are specified as functions of a shared parameter.
An ordered allocation of a total into nonnegative integer parts.	One function that satisfies the given differential equation, with no arbitrary constants left to choose.	A factor used to multiply a differential equation so that an expression becomes a complete derivative and can be integrated.
An inverse defined on neighbourhoods of a particular input and output point.	The matrix of first partial derivatives of a vector-valued map.	A property preserved before and after each iteration of a loop.

forward substitution	nullity	integration by parts
reflection symmetry	related rate	removable limit
complete metric space	neighbourhood basis	

An integration method derived from the product rule, transferring differentiation from one factor to another.	The dimension of the null space of a matrix: how many free variables the equation $Ax = 0$ has.	Solving a lower triangular system from its first equation downward.
A finite nearby limit used to fill in a missing function value continuously.	A rate obtained by differentiating the relationship between changing quantities.	A relation between integrand values at points mirrored across an interval midpoint.
	Basic neighbourhoods sufficient to test local topological properties.	A metric space in which every Cauchy sequence converges to a point of that space.