**Concepts represented by a Greek letter**

**Αα (alpha)**

* α represents:
  + the [statistical significance](https://en.wikipedia.org/wiki/Statistical_significance) of a result
  + the [false positive rate](https://en.wikipedia.org/wiki/Type_I_and_type_II_errors) in statistics ("Type I" error)
  + the [return in excess of the compensation for the risk borne](https://en.wikipedia.org/wiki/Alpha_%28investment%29) in investment
  + the [α-conversion](https://en.wikipedia.org/wiki/%CE%91-conversion) in [lambda calculus](https://en.wikipedia.org/wiki/Lambda_calculus)

**Ββ (beta)**

* Β represents the [beta function](https://en.wikipedia.org/wiki/Beta_function)
* β represents:
  + the [standardized regression coefficient](https://en.wikipedia.org/wiki/Standardized_coefficient) for predictor or independent variables in [linear regression](https://en.wikipedia.org/wiki/Linear_regression) (unstandardized regression coefficients are represented with the lower-case Latin b, but are often called "betas" as well)
  + the [false negative rate](https://en.wikipedia.org/wiki/Type_I_and_type_II_errors) in statistics ("Type II" error)
  + the [beta coefficient](https://en.wikipedia.org/wiki/Beta_coefficient), the non-diversifiable risk, of an asset in [mathematical finance](https://en.wikipedia.org/wiki/Mathematical_finance)
  + [β-reduction](https://en.wikipedia.org/wiki/%CE%92-reduction) in [lambda calculus](https://en.wikipedia.org/wiki/Lambda_calculus)

**Γγ (gamma)**

* Γ represents:
  + the [gamma function](https://en.wikipedia.org/wiki/Gamma_function), a generalization of the [factorial](https://en.wikipedia.org/wiki/Factorial)
  + the [upper incomplete gamma function](https://en.wikipedia.org/wiki/Incomplete_gamma_function)
  + the [modular group](https://en.wikipedia.org/wiki/Modular_group), the group of fractional linear transformations
  + the [gamma distribution](https://en.wikipedia.org/wiki/Gamma_distribution), a continuous probability distribution defined using the [gamma function](https://en.wikipedia.org/wiki/Gamma_function)
  + [second-order sensitivity to price](https://en.wikipedia.org/wiki/Greeks_%28finance%29#Gamma) in [mathematical finance](https://en.wikipedia.org/wiki/Mathematical_finance)
* γ represents:
  + the [lower incomplete gamma function](https://en.wikipedia.org/wiki/Incomplete_gamma_function)
  + the [Euler–Mascheroni constant](https://en.wikipedia.org/wiki/Euler%E2%80%93Mascheroni_constant) in mathematics

**Δδ (delta)**

* Δ represents:
  + a [finite difference](https://en.wikipedia.org/wiki/Finite_difference)
  + a [difference operator](https://en.wikipedia.org/wiki/Difference_operator)
  + a [symmetric difference](https://en.wikipedia.org/wiki/Symmetric_difference)
  + the [Laplace operator](https://en.wikipedia.org/wiki/Laplace_operator)
  + the angle that subtends the arc of a circular curve in [surveying](https://en.wikipedia.org/wiki/Surveying)
  + the [determinant](https://en.wikipedia.org/wiki/Determinant) of an inverse [matrix](https://en.wikipedia.org/wiki/Matrix_%28mathematics%29)[[1]](https://en.wikipedia.org/wiki/Greek_letters_used_in_mathematics,_science,_and_engineering#cite_note-1)
  + the maximum [degree](https://en.wikipedia.org/wiki/Degree_%28graph_theory%29) of any vertex in a given [graph](https://en.wikipedia.org/wiki/Graph_%28mathematics%29)
  + the difference or change in a given variable, e.g. ∆v means a difference or change in [velocity](https://en.wikipedia.org/wiki/Velocity)
  + [sensitivity to price](https://en.wikipedia.org/wiki/Greeks_%28finance%29) in [mathematical finance](https://en.wikipedia.org/wiki/Mathematical_finance)
  + distance to Earth, measured in [astronomical units](https://en.wikipedia.org/wiki/Astronomical_unit)
  + [heat](https://en.wikipedia.org/wiki/Heat) in a chemical formula
  + the discriminant in the quadratic formula which determines the nature of the roots
  + the [degrees of freedom](https://en.wikipedia.org/wiki/Degrees_of_freedom_%28statistics%29) in a non-pooled statistical hypothesis test of two population means
* δ represents:
  + [percent error](https://en.wikipedia.org/wiki/Approximation_error)
  + a variation in the [calculus of variations](https://en.wikipedia.org/wiki/Calculus_of_variations)
  + the [Kronecker delta](https://en.wikipedia.org/wiki/Kronecker_delta) function
  + the [Feigenbaum constant](https://en.wikipedia.org/wiki/Feigenbaum_constant)
  + the [force of interest](https://en.wikipedia.org/wiki/Compound_interest) in [mathematical finance](https://en.wikipedia.org/wiki/Mathematical_finance)
  + the [Dirac delta function](https://en.wikipedia.org/wiki/Dirac_delta_function)
  + the [receptor](https://en.wikipedia.org/wiki/Receptor_%28biochemistry%29) which [enkephalins](https://en.wikipedia.org/wiki/Enkephalins) have the highest affinity for in [pharmacology](https://en.wikipedia.org/wiki/Pharmacology) [[2]](https://en.wikipedia.org/wiki/Greek_letters_used_in_mathematics,_science,_and_engineering#cite_note-Katzung-2)
  + the [Skorokhod integral](https://en.wikipedia.org/wiki/Skorokhod_integral) in [Malliavin calculus](https://en.wikipedia.org/wiki/Malliavin_calculus), a subfield of stochastic analysis
  + the minimum [degree](https://en.wikipedia.org/wiki/Degree_%28graph_theory%29) of any vertex in a given [graph](https://en.wikipedia.org/wiki/Graph_%28mathematics%29)
  + a partial charge. δ− represents a negative partial charge, and δ+ represents a positive partial charge [chemistry](https://en.wikipedia.org/wiki/Chemistry) (See also: [Solvation](https://en.wikipedia.org/wiki/Solvation))
  + the [Chemical shift](https://en.wikipedia.org/wiki/Chemical_shift) of an atomic nucleus
  + [stable isotope compositions](https://en.wikipedia.org/wiki/Isotope_analysis#Stable_isotope_analysis_in_aquatic_ecosystems)
  + [declination](https://en.wikipedia.org/wiki/Declination) in [astrometry](https://en.wikipedia.org/wiki/Astrometry)
  + the [Turner function](https://en.wikipedia.org/w/index.php?title=Turner_function&action=edit&redlink=1) in computational material science
  + depreciation in macroeconomics
  + [noncentrality measure](https://en.wikipedia.org/w/index.php?title=Noncentrality_measure&action=edit&redlink=1) in [statistics](https://en.wikipedia.org/wiki/Statistics)[[3]](https://en.wikipedia.org/wiki/Greek_letters_used_in_mathematics,_science,_and_engineering#cite_note-3)

**Εε (epsilon)**

* ε represents:
  + a small positive quantity; see [limit](https://en.wikipedia.org/wiki/Limit_%28mathematics%29)
  + a random error in [regression analysis](https://en.wikipedia.org/wiki/Regression_analysis)
  + the absolute value of an error [[4]](https://en.wikipedia.org/wiki/Greek_letters_used_in_mathematics,_science,_and_engineering#cite_note-GOLUB_MAT_COMP2.2.3-4)
  + in [set theory](https://en.wikipedia.org/wiki/Set_theory), the limit [ordinal](https://en.wikipedia.org/wiki/Ordinal_number) of the sequence omega,\omega^{\omega},\omega^{\omega^{\omega}},\dots
  + in [computer science](https://en.wikipedia.org/wiki/Computer_science), the [empty string](https://en.wikipedia.org/wiki/String_%28computer_science%29)
  + the [Levi-Civita symbol](https://en.wikipedia.org/wiki/Levi-Civita_symbol)
  + in [electromagnetics](https://en.wikipedia.org/wiki/Electromagnetics), [dielectric](https://en.wikipedia.org/wiki/Dielectric) [permittivity](https://en.wikipedia.org/wiki/Permittivity)
  + [emissivity](https://en.wikipedia.org/wiki/Emissivity)
  + [strain](https://en.wikipedia.org/wiki/Deformation_%28mechanics%29) in [continuum mechanics](https://en.wikipedia.org/wiki/Continuum_mechanics)
  + [permittivity](https://en.wikipedia.org/wiki/Permittivity)
  + the Earth's [axial tilt](https://en.wikipedia.org/wiki/Axial_tilt) in [astrometry](https://en.wikipedia.org/wiki/Astrometry)
  + [elasticity](https://en.wikipedia.org/wiki/Elasticity_%28economics%29) in [economics](https://en.wikipedia.org/wiki/Economics)
  + [expected value](https://en.wikipedia.org/wiki/Expected_value) in [probability theory](https://en.wikipedia.org/wiki/Probability_theory) and [statistics](https://en.wikipedia.org/wiki/Statistics)
  + [electromotive force](https://en.wikipedia.org/wiki/Electromotive_force)
  + in [chemistry](https://en.wikipedia.org/wiki/Chemistry), the [molar extinction coefficient](https://en.wikipedia.org/wiki/Molar_extinction_coefficient) of a [chromophore](https://en.wikipedia.org/wiki/Chromophore).
* [set](https://en.wikipedia.org/wiki/Set_%28mathematics%29) membership symbol ∈ is based on ε

**Ϝϝ (digamma)**

* Ϝ is sometimes used to represent the [digamma function](https://en.wikipedia.org/wiki/Digamma_function), though the Latin letter F (which is nearly identical) is usually substituted.

**Ζζ (zeta)**

* ζ represents:
  + the [Riemann zeta function](https://en.wikipedia.org/wiki/Riemann_zeta_function) and other [zeta functions](https://en.wikipedia.org/wiki/Zeta_function_%28disambiguation%29) in mathematics
  + the coefficient of [viscous friction](https://en.wikipedia.org/wiki/Viscosity) in [polymer](https://en.wikipedia.org/wiki/Polymer) dynamics
  + the [damping ratio](https://en.wikipedia.org/wiki/Damping_ratio)
  + relative vertical [vorticity](https://en.wikipedia.org/wiki/Vorticity) in fluid dynamics

**Ηη (eta)**

* Η represents:
  + the Eta function of [Ludwig Boltzmann](https://en.wikipedia.org/wiki/Ludwig_Boltzmann)'s [H-theorem](https://en.wikipedia.org/wiki/H-theorem) ("Eta" theorem), in [statistical mechanics](https://en.wikipedia.org/wiki/Statistical_mechanics)
* η represents:
  + the intrinsic [wave impedance](https://en.wikipedia.org/wiki/Wave_impedance) of a medium (e.g. the [impedance of free space](https://en.wikipedia.org/wiki/Impedance_of_free_space))
  + the partial [regression](https://en.wikipedia.org/wiki/Regression_analysis) [coefficient](https://en.wikipedia.org/wiki/Correlation_ratio) in statistics
  + [elasticities](https://en.wikipedia.org/wiki/Elasticity_%28economics%29) in economics
  + the absolute vertical vorticity (relative vertical vorticity + [Coriolis effect](https://en.wikipedia.org/wiki/Coriolis_effect)) in fluid dynamics
  + an [index of refraction](https://en.wikipedia.org/wiki/Index_of_refraction)
  + the [eta meson](https://en.wikipedia.org/wiki/Eta_meson)
  + [viscosity](https://en.wikipedia.org/wiki/Viscosity)
  + [energy conversion efficiency](https://en.wikipedia.org/wiki/Energy_conversion_efficiency)
  + [efficiency (physics)](https://en.wikipedia.org/wiki/Efficiency#In_science_and_technology)
  + the [Minkowski metric](https://en.wikipedia.org/wiki/Minkowski_metric) tensor in relativity
  + noise in communication system models
  + [η-conversion](https://en.wikipedia.org/wiki/Lambda_calculus#.CE.B7-conversion) in [lambda calculus](https://en.wikipedia.org/wiki/Lambda_calculus)
  + Cost-push supply side shocks in the Phillips Curve Equation (economics)[[*citation needed]]]*](https://en.wikipedia.org/wiki/Wikipedia:Citation_needed)

**Θθ (theta)**

* Θ represents:
  + an asymptotically tight bound related to [big O notation](https://en.wikipedia.org/wiki/Big_O_notation).
  + [sensitivity to the passage of time](https://en.wikipedia.org/wiki/Greeks_%28finance%29#Theta) in [mathematical finance](https://en.wikipedia.org/wiki/Mathematical_finance)
  + in [set theory](https://en.wikipedia.org/wiki/%CE%98_%28set_theory%29), a certain [ordinal number](https://en.wikipedia.org/wiki/Ordinal_number)
* θ represents:
  + the [mean time between failure](https://en.wikipedia.org/wiki/Mean_time_between_failure) in [reliability engineering](https://en.wikipedia.org/wiki/Reliability_engineering)
  + in [mathematical statistics](https://en.wikipedia.org/wiki/Mathematical_statistics), an unknown parameter
  + [theta functions](https://en.wikipedia.org/wiki/Theta_function)

**Ιι (iota)**

* ι represents:
  + the [index generator function](https://en.wikipedia.org/wiki/APL_syntax) in [APL](https://en.wikipedia.org/wiki/A_Programming_Language) (in the form ⍳)
  + the [orbital inclination](https://en.wikipedia.org/wiki/Orbital_inclination) with respect to the line of sight, used when describing [gravitational wave](https://en.wikipedia.org/wiki/Gravitational_wave) sources.

**Κκ (kappa)**

* Κ represents:
  + the [Kappa number](https://en.wikipedia.org/wiki/Kappa_number)
* κ represents:
  + the [Von Kármán constant](https://en.wikipedia.org/wiki/Von_K%C3%A1rm%C3%A1n_constant)
  + the [kappa curve](https://en.wikipedia.org/wiki/Kappa_curve)
  + the [condition number](https://en.wikipedia.org/wiki/Condition_number) of a [matrix](https://en.wikipedia.org/wiki/Matrix_%28mathematics%29) in [numerical analysis](https://en.wikipedia.org/wiki/Numerical_analysis)
  + the [connectivity](https://en.wikipedia.org/wiki/Connectivity_%28graph_theory%29) of a [graph](https://en.wikipedia.org/wiki/Graph_%28mathematics%29) in [graph theory](https://en.wikipedia.org/wiki/Graph_theory)
  + [curvature](https://en.wikipedia.org/wiki/Curvature)
  + the [receptor](https://en.wikipedia.org/wiki/Receptor_%28biochemistry%29) which [dynorphins](https://en.wikipedia.org/wiki/Dynorphins) have the highest affinity for in [pharmacology](https://en.wikipedia.org/wiki/Pharmacology)[[2]](https://en.wikipedia.org/wiki/Greek_letters_used_in_mathematics,_science,_and_engineering#cite_note-Katzung-2)

**Λλ (lambda)**

* Λ represents:
  + the [von Mangoldt function](https://en.wikipedia.org/wiki/Von_Mangoldt_function) in [number theory](https://en.wikipedia.org/wiki/Number_theory)
  + a diagonal matrix of [eigenvalues](https://en.wikipedia.org/wiki/Eigenvalue) in [linear algebra](https://en.wikipedia.org/wiki/Linear_algebra)
  + the [permeance](https://en.wikipedia.org/wiki/Permeance) of a material in [electromagnetism](https://en.wikipedia.org/wiki/Electromagnetism)
* λ represents:
  + a general [eigenvalue](https://en.wikipedia.org/wiki/Eigenvalue) in [linear algebra](https://en.wikipedia.org/wiki/Linear_algebra)
  + the expected number of occurrences in a [Poisson distribution](https://en.wikipedia.org/wiki/Poisson_distribution) in probability
  + the [arrival rate](https://en.wikipedia.org/wiki/Arrival_rate) in [queueing theory](https://en.wikipedia.org/wiki/Queueing_theory)
  + the average lifetime or rate parameter in an [exponential distribution](https://en.wikipedia.org/wiki/Exponential_distribution) (commonly used across [statistics](https://en.wikipedia.org/wiki/Statistics), [physics](https://en.wikipedia.org/wiki/Physics), and [engineering](https://en.wikipedia.org/wiki/Engineering))
  + the [mean](https://en.wikipedia.org/wiki/Mean) or average value (probability and statistics)
  + the [lagrange multiplier](https://en.wikipedia.org/wiki/Lagrange_multiplier) in the [mathematical optimization](https://en.wikipedia.org/wiki/Mathematical_optimization) method, known as the [shadow price](https://en.wikipedia.org/wiki/Shadow_price) in economics
  + [linear density](https://en.wikipedia.org/wiki/Linear_density)

**Μμ (mu)**

* μ represents:
  + the [Möbius function](https://en.wikipedia.org/wiki/M%C3%B6bius_function) in [number theory](https://en.wikipedia.org/wiki/Number_theory)
  + the ring [representation](https://en.wikipedia.org/wiki/Representation_%28mathematics%29) of a representation module
  + the population [mean](https://en.wikipedia.org/wiki/Mean) or [expected value](https://en.wikipedia.org/wiki/Expected_value) in [probability](https://en.wikipedia.org/wiki/Probability) and [statistics](https://en.wikipedia.org/wiki/Statistics)
  + a [measure](https://en.wikipedia.org/wiki/Measure_%28mathematics%29) in [measure theory](https://en.wikipedia.org/wiki/Measure_theory)
  + [micro-](https://en.wikipedia.org/wiki/Micro-), an [SI prefix](https://en.wikipedia.org/wiki/SI_prefix) denoting 10−6 (one millionth)
  + the [coefficient of friction](https://en.wikipedia.org/wiki/Coefficient_of_friction) in [physics](https://en.wikipedia.org/wiki/Physics)
  + the [service rate](https://en.wikipedia.org/wiki/Service_rate) in [queueing theory](https://en.wikipedia.org/wiki/Queueing_theory)
  + the [dynamic viscosity](https://en.wikipedia.org/wiki/Dynamic_viscosity) in physics
  + magnetic [permeability](https://en.wikipedia.org/wiki/Permeability_%28electromagnetism%29) in [electromagnetics](https://en.wikipedia.org/wiki/Electromagnetics)
  + a [muon](https://en.wikipedia.org/wiki/Muon)
  + [reduced mass](https://en.wikipedia.org/wiki/Reduced_mass)
  + chemical potential in [condensed matter](https://en.wikipedia.org/wiki/Condensed_matter) physics
  + the [ion mobility](https://en.wikipedia.org/wiki/Electrical_mobility) in [plasma physics](https://en.wikipedia.org/wiki/Plasma_physics)

**Νν (nu)**

* ν represents:
  + [frequency](https://en.wikipedia.org/wiki/Frequency) in physics in [hertz](https://en.wikipedia.org/wiki/Hertz) (Hz)
  + [Degrees of freedom](https://en.wikipedia.org/wiki/Degrees_of_freedom_%28statistics%29) in statistics
  + [Poisson's ratio](https://en.wikipedia.org/wiki/Poisson%27s_ratio) in material science
  + a [neutrino](https://en.wikipedia.org/wiki/Neutrino)
  + [kinematic viscosity](https://en.wikipedia.org/wiki/Kinematic_viscosity) of liquids
  + [stoichiometric coefficient](https://en.wikipedia.org/wiki/Stoichiometric_coefficient) in chemistry
  + dimension of nullspace in mathematics

**Ξξ (xi)**

* Ξ represents:
  + the original [Riemann Xi function](https://en.wikipedia.org/wiki/Riemann_Xi_function), i.e. Riemann's lower case ξ, as denoted by [Edmund Landau](https://en.wikipedia.org/wiki/Edmund_Landau) and currently
  + the [grand canonical ensemble](https://en.wikipedia.org/wiki/Grand_canonical_ensemble) found in [statistical mechanics](https://en.wikipedia.org/wiki/Statistical_mechanics)
  + the [xi baryon](https://en.wikipedia.org/wiki/Xi_baryon)
* ξ represents:
  + the original [Riemann Xi function](https://en.wikipedia.org/wiki/Riemann_Xi_function)
  + the modified definition of Riemann xi function, as denoted by Edmund Landau and currently
  + a [random variable](https://en.wikipedia.org/wiki/Random_variable)
  + the extent of a chemical reaction
  + [coherence length](https://en.wikipedia.org/wiki/Coherence_length)
  + the [damping](https://en.wikipedia.org/wiki/Damping) ratio
  + universal set

**Οο (omicron)**

* Ο represents:
  + [big O notation](https://en.wikipedia.org/wiki/Big_O_notation) (may be represented by an uppercase Latin O)
* o represents:
  + [small o notation](https://en.wikipedia.org/wiki/Big_O_notation) (may be represented by a lowercase Latin o)

**Ππ (pi)**

* Π represents:
  + the [product](https://en.wikipedia.org/wiki/Multiplication) operator in mathematics
  + a [plane](https://en.wikipedia.org/wiki/Plane_%28mathematics%29)
  + the unary projection operation in [relational algebra](https://en.wikipedia.org/wiki/Relational_algebra)
* π represents:
  + [Archimedes' constant](https://en.wikipedia.org/wiki/Archimedes%27_constant), the ratio of a [circle](https://en.wikipedia.org/wiki/Circle)'s [circumference](https://en.wikipedia.org/wiki/Circumference) to its [diameter](https://en.wikipedia.org/wiki/Diameter)
  + the [prime-counting function](https://en.wikipedia.org/wiki/Prime-counting_function)
  + [profit](https://en.wikipedia.org/wiki/Profit_%28economics%29) in [microeconomics](https://en.wikipedia.org/wiki/Microeconomics) and [game theory](https://en.wikipedia.org/wiki/Game_theory)
  + [inflation](https://en.wikipedia.org/wiki/Inflation) in [macroeconomics](https://en.wikipedia.org/wiki/Macroeconomics), expressed as a constant with respect to time
  + the state distribution of a [Markov chain](https://en.wikipedia.org/wiki/Markov_chain)
  + in [statistics](https://en.wikipedia.org/wiki/Statistics), the population proportion of success
  + [nucleotide diversity](https://en.wikipedia.org/wiki/Nucleotide_diversity) in molecular genetics
  + in electronics, a special type of [small signal model](https://en.wikipedia.org/wiki/Small_signal_model) is referred to as a [hybrid-pi model](https://en.wikipedia.org/wiki/Hybrid-pi_model)
  + in [relational algebra](https://en.wikipedia.org/wiki/Relational_algebra) for databases, represents projection
* ϖ (a graphic variant, see [pomega](https://en.wikipedia.org/wiki/Pomega)) represents:

**Ρρ (rho)**

* Ρ represents:
  + one of the [Gegenbauer](https://en.wikipedia.org/wiki/Leopold_Gegenbauer) functions in analytic number theory (may be replaced by the capital form of the Latin letter P).
* ρ represents:
  + one of the [Gegenbauer](https://en.wikipedia.org/wiki/Leopold_Gegenbauer) functions in analytic number theory.
  + the [Dickman-de Bruijn function](https://en.wikipedia.org/wiki/Dickman_function)
  + the [radius](https://en.wikipedia.org/wiki/Radius) in a [polar](https://en.wikipedia.org/wiki/Polar_coordinate_system), [cylindrical](https://en.wikipedia.org/wiki/Cylindrical_coordinate_system), or [spherical coordinate system](https://en.wikipedia.org/wiki/Spherical_coordinate_system)
  + the [correlation coefficient](https://en.wikipedia.org/wiki/Spearman%27s_rank_correlation_coefficient) in [statistics](https://en.wikipedia.org/wiki/Statistics)
  + the [sensitivity to interest rate](https://en.wikipedia.org/wiki/Greeks_%28finance%29#Rho) in [mathematical finance](https://en.wikipedia.org/wiki/Mathematical_finance)
  + [density](https://en.wikipedia.org/wiki/Density) (mass or charge per unit volume; may be replaced by the capital form of the Latin letter D)
  + the [rank of a matrix](https://en.wikipedia.org/wiki/Rank_of_a_matrix)

**Σσ (sigma)**

* Σ represents:
  + the [summation](https://en.wikipedia.org/wiki/Summation) operator
  + the [covariance matrix](https://en.wikipedia.org/wiki/Covariance_matrix)
* σ represents:
  + the [divisor function](https://en.wikipedia.org/wiki/Divisor_function) in [number theory](https://en.wikipedia.org/wiki/Number_theory)
  + the [real part](https://en.wikipedia.org/wiki/Real_part) of the [complex](https://en.wikipedia.org/wiki/Complex_number) variable *s* = σ + *i* *t* in [analytic number theory](https://en.wikipedia.org/wiki/Analytic_number_theory)
  + the sign of a permutation in the theory of finite groups
  + the population [standard deviation](https://en.wikipedia.org/wiki/Standard_deviation), a measure of [spread](https://en.wikipedia.org/wiki/Statistical_dispersion) in [probability](https://en.wikipedia.org/wiki/Probability) and [statistics](https://en.wikipedia.org/wiki/Statistics)
  + the selection operator in [relational algebra](https://en.wikipedia.org/wiki/Relational_algebra)
  + [area density](https://en.wikipedia.org/wiki/Area_density)
  + uncertainty
  + utilization in operations management

**Ττ (tau)**

* τ (lower-case) represents:
  + [torque](https://en.wikipedia.org/wiki/Torque), the rotational force in [mechanics](https://en.wikipedia.org/wiki/Mechanics)
  + the elementary [tau lepton](https://en.wikipedia.org/wiki/Tau_lepton) in [particle physics](https://en.wikipedia.org/wiki/Particle_physics)
  + a [mean lifetime](https://en.wikipedia.org/wiki/Mean_lifetime), of an [exponential decay](https://en.wikipedia.org/wiki/Exponential_decay) or [spontaneous emission](https://en.wikipedia.org/wiki/Spontaneous_emission) process
  + the [time constant](https://en.wikipedia.org/wiki/Time_constant) of any device, such as an [RC circuit](https://en.wikipedia.org/wiki/RC_circuit)
  + [proper time](https://en.wikipedia.org/wiki/Proper_time) in [relativity](https://en.wikipedia.org/wiki/Theory_of_relativity)
  + one [turn](https://en.wikipedia.org/wiki/Turn_%28geometry%29): the [constant](https://en.wikipedia.org/wiki/Mathematical_constant) ratio of a [circle](https://en.wikipedia.org/wiki/Circle)'s [circumference](https://en.wikipedia.org/wiki/Circumference) to its [radius](https://en.wikipedia.org/wiki/Radius), with value 2π (6.283...).[[7]](https://en.wikipedia.org/wiki/Greek_letters_used_in_mathematics,_science,_and_engineering#cite_note-7)
  + [Kendall tau rank correlation coefficient](https://en.wikipedia.org/wiki/Kendall_tau_rank_correlation_coefficient), a measure of [rank correlation](https://en.wikipedia.org/wiki/Rank_correlation) in statistics
  + [Ramanujan's tau function](https://en.wikipedia.org/wiki/Ramanujan%27s_tau_function) in [number theory](https://en.wikipedia.org/wiki/Number_theory)
  + a measure of [opacity](https://en.wikipedia.org/wiki/Opacity_%28optics%29), or how much sunlight cannot penetrate the atmosphere
  + the intertwining operator in representation theory
  + [Shear stress](https://en.wikipedia.org/wiki/Shear_stress) in [continuum mechanics](https://en.wikipedia.org/wiki/Continuum_mechanics)
  + an internal system step in [transition systems](https://en.wikipedia.org/wiki/State_transition_system)
  + a type variable in type theories, such as the [simply typed lambda calculus](https://en.wikipedia.org/wiki/Simply_typed_lambda_calculus)
  + path [tortuosity](https://en.wikipedia.org/wiki/Tortuosity) in reservoir engineering
  + in [Topology](https://en.wikipedia.org/wiki/Topology), a given topology
  + the [tau](https://en.wikipedia.org/wiki/Tau_%28protein%29) in [biochemistry](https://en.wikipedia.org/wiki/Biochemistry), a [protein](https://en.wikipedia.org/wiki/Protein) associated to [microtubules](https://en.wikipedia.org/wiki/Microtubule)
  + the [golden ratio](https://en.wikipedia.org/wiki/Golden_ratio) 1.618... (although [φ](https://en.wikipedia.org/wiki/Phi_%28letter%29) (phi) is more common)
  + the number of divisors of highly composite numbers (sequence [A000005](https://oeis.org/A000005) in [OEIS](https://en.wikipedia.org/wiki/On-Line_Encyclopedia_of_Integer_Sequences))

**Υυ (upsilon)**

* Υ represents:
  + the [upsilon meson](https://en.wikipedia.org/wiki/Upsilon_meson)
* υ represents:
  + [frequency](https://en.wikipedia.org/wiki/Frequency) in physics textbooks

**Φφ (phi)**

* Φ represents:
  + the [work function](https://en.wikipedia.org/wiki/Work_function) in physics; the energy required by a photon to remove an electron from the surface of a metal
  + [magnetic flux](https://en.wikipedia.org/wiki/Magnetic_flux)
  + the [cumulative distribution function](https://en.wikipedia.org/wiki/Cumulative_distribution_function) of the [normal distribution](https://en.wikipedia.org/wiki/Normal_distribution) in statistics
  + [phenyl](https://en.wikipedia.org/wiki/Phenyl) functional group
  + the [reciprocal](https://en.wikipedia.org/wiki/Multiplicative_inverse) of the [golden ratio](https://en.wikipedia.org/wiki/Golden_ratio) (represented by φ, below), also represented as 1/φ
  + the value of the integration of information in a system (based on [Integrated Information Theory](https://en.wikipedia.org/wiki/Integrated_Information_Theory))
  + note: a symbol for the [empty set](https://en.wikipedia.org/wiki/Empty_set), varnothing, resembles Φ but is not Φ
* φ represents:
  + the [golden ratio](https://en.wikipedia.org/wiki/Golden_ratio) 1.618... in mathematics, art, and architecture
  + [Euler's totient function](https://en.wikipedia.org/wiki/Euler%27s_totient_function) in number theory
  + a holomorphic map on an analytic space
  + the argument of a [complex number](https://en.wikipedia.org/wiki/Complex_number) in mathematics
  + the value of a [plane angle](https://en.wikipedia.org/wiki/Angle) in physics and mathematics
  + the [angle](https://en.wikipedia.org/wiki/Angle) to the z [axis](https://en.wikipedia.org/wiki/Coordinate_axis) in [spherical coordinates](https://en.wikipedia.org/wiki/Spherical_coordinates) (mathematics)
  + the [angle](https://en.wikipedia.org/wiki/Angle) to the x [axis](https://en.wikipedia.org/wiki/Coordinate_axis) in the xy-[plane](https://en.wikipedia.org/wiki/Plane_%28mathematics%29) in [spherical](https://en.wikipedia.org/wiki/Spherical_coordinates) or [cylindrical coordinates](https://en.wikipedia.org/wiki/Cylindrical_coordinates) (physics)
  + [latitude](https://en.wikipedia.org/wiki/Latitude) in [geodesy](https://en.wikipedia.org/wiki/Geodesy)
  + a [scalar field](https://en.wikipedia.org/wiki/Scalar_field)
  + [radiant flux](https://en.wikipedia.org/wiki/Radiant_flux)
  + [electric potential](https://en.wikipedia.org/wiki/Electric_potential)
  + the [probability density function](https://en.wikipedia.org/wiki/Probability_density_function) of the [normal distribution](https://en.wikipedia.org/wiki/Normal_distribution) in statistics
  + a feature of a syntactic node giving that node characteristics such as [gender](https://en.wikipedia.org/wiki/Grammatical_gender), [number](https://en.wikipedia.org/wiki/Grammatical_number) and [person](https://en.wikipedia.org/wiki/Grammatical_person) in [syntax](https://en.wikipedia.org/wiki/Syntax)
  + the diameter of a vessel (engineering)
  + capacity reduction factor of materials in [structural engineering](https://en.wikipedia.org/wiki/Structural_engineering)

**Χχ (chi)**

* χ represents:
  + the [chi distribution](https://en.wikipedia.org/wiki/Chi_distribution) in [statistics](https://en.wikipedia.org/wiki/Statistics) (chi^2 is the more frequently encountered [chi-squared distribution](https://en.wikipedia.org/wiki/Chi-squared_distribution))
  + the [chromatic number](https://en.wikipedia.org/wiki/Chromatic_number) of a graph in [graph theory](https://en.wikipedia.org/wiki/Graph_theory)
  + the [Euler characteristic](https://en.wikipedia.org/wiki/Euler_characteristic) in [algebraic topology](https://en.wikipedia.org/wiki/Algebraic_topology)
  + [electronegativity](https://en.wikipedia.org/wiki/Electronegativity) in the [periodic table](https://en.wikipedia.org/wiki/Periodic_table)
  + the [Rabi frequency](https://en.wikipedia.org/wiki/Rabi_frequency)
  + the [spinor](https://en.wikipedia.org/wiki/Spinor) of a fundamental particle
  + the Fourier transform of a [linear response function](https://en.wikipedia.org/wiki/Linear_response_function)
  + a [character](https://en.wikipedia.org/wiki/Character_%28mathematics%29) in [mathematics](https://en.wikipedia.org/wiki/Mathematics); especially a [Dirichlet character](https://en.wikipedia.org/wiki/Dirichlet_character) in [number theory](https://en.wikipedia.org/wiki/Number_theory)
  + the Sigma vectors in the [unscented transform](https://en.wikipedia.org/wiki/Unscented_transform) used in the [unscented Kalman filter](https://en.wikipedia.org/wiki/Unscented_Kalman_filter)
  + sometimes the [mole fraction](https://en.wikipedia.org/wiki/Mole_fraction)
  + a characteristic or [indicator function](https://en.wikipedia.org/wiki/Indicator_function) in mathematics

**Ψψ (psi)**

* Ψ represents:
  + [water potential](https://en.wikipedia.org/wiki/Water_potential)
  + a quaternary combinator in [combinatory logic](https://en.wikipedia.org/wiki/Combinatory_logic)
* ψ represents:
  + the [wave function](https://en.wikipedia.org/wiki/Wave_function) in the [Schrödinger equation](https://en.wikipedia.org/wiki/Schr%C3%B6dinger_equation) of [quantum mechanics](https://en.wikipedia.org/wiki/Quantum_mechanics)
  + the [stream function](https://en.wikipedia.org/wiki/Stream_function) in fluid dynamics
  + yaw angle in vehicle dynamics
  + the angle between the x-axis and the tangent to the curve in the intrinsic coordinates system
  + the [reciprocal Fibonacci constant](https://en.wikipedia.org/wiki/Reciprocal_Fibonacci_constant)
  + the second [Chebyshev function](https://en.wikipedia.org/wiki/Chebyshev_function) in [number theory](https://en.wikipedia.org/wiki/Number_theory)
  + the [polygamma function](https://en.wikipedia.org/wiki/Polygamma_function) in [mathematics](https://en.wikipedia.org/wiki/Mathematics)
  + load combination factor in [structural engineering](https://en.wikipedia.org/wiki/Structural_engineering)

**Ωω (omega)**

* Ω represents:
  + the [SI unit](https://en.wikipedia.org/wiki/SI_unit) measure of [electrical resistance](https://en.wikipedia.org/wiki/Electrical_resistance), the [ohm](https://en.wikipedia.org/wiki/Ohm_%28unit%29)
  + [angular velocity](https://en.wikipedia.org/wiki/Angular_velocity) / [radian frequency](https://en.wikipedia.org/wiki/Angular_velocity) (rev/min)
  + the [right ascension of the ascending node](https://en.wikipedia.org/wiki/Right_ascension_of_the_ascending_node) in [celestial mechanics](https://en.wikipedia.org/wiki/Celestial_mechanics)
  + the rotation rate of an object, particularly a planet, in dynamics
  + the [Omega constant](https://en.wikipedia.org/wiki/Omega_constant) 0.5671432904097838729999686622...
  + an asymptotic lower bound related to [big O notation](https://en.wikipedia.org/wiki/Big_O_notation)
  + in [probability theory](https://en.wikipedia.org/wiki/Probability_theory) and [statistical mechanics](https://en.wikipedia.org/wiki/Statistical_mechanics), the [set](https://en.wikipedia.org/wiki/Set_%28mathematics%29) of possible distinct system states
  + a [solid angle](https://en.wikipedia.org/wiki/Solid_angle)
  + the [Omega baryon](https://en.wikipedia.org/wiki/Omega_baryon)
  + the [arithmetic function](https://en.wikipedia.org/wiki/Arithmetic_function#.CE.A9.28n.29.2C_.CF.89.28n.29.2C_.CE.BDp.28n.29_.E2.80.93_prime_power_decomposition) counting a number's prime factors
  + the [density parameter](https://en.wikipedia.org/wiki/Density_parameter) in [cosmology](https://en.wikipedia.org/wiki/Physical_cosmology)
* ω represents:
  + [angular velocity](https://en.wikipedia.org/wiki/Angular_velocity) / [radian frequency](https://en.wikipedia.org/wiki/Angular_velocity) (rad/sec)
  + the [argument of periapsis](https://en.wikipedia.org/wiki/Argument_of_periapsis) in [celestial mechanics](https://en.wikipedia.org/wiki/Celestial_mechanics)
  + a [complex](https://en.wikipedia.org/wiki/Complex_number) [cube](https://en.wikipedia.org/wiki/Cube_root) [root of unity](https://en.wikipedia.org/wiki/Root_of_unity) — the other is ω² — (used to describe various ways of calculating the [discrete Fourier transform](https://en.wikipedia.org/wiki/Discrete_Fourier_transform))
  + the differentiability class (*i.e.* ^\omega) for functions that are infinitely differentiable because they are [complex analytic](https://en.wikipedia.org/wiki/Analytic_function)
  + the first [infinite](https://en.wikipedia.org/wiki/Infinity) [ordinal](https://en.wikipedia.org/wiki/Ordinal_number)
  + the [omega meson](https://en.wikipedia.org/wiki/Omega_meson)
  + the set of [natural numbers](https://en.wikipedia.org/wiki/Natural_number) in [set theory](https://en.wikipedia.org/wiki/Set_theory) (although mathbb{N}or **N** is more common in other areas of mathematics)
  + an asymptotically dominant quantity related to [big O notation](https://en.wikipedia.org/wiki/Big_O_notation)
  + in [probability theory](https://en.wikipedia.org/wiki/Probability_theory), a possible outcome of an experiment
  + vertical velocity in [pressure-based](https://en.wikipedia.org/wiki/Geopotential_height) coordinate systems (commonly used in atmospheric dynamics)
  + the [arithmetic function](https://en.wikipedia.org/wiki/Arithmetic_function#.CE.A9.28n.29.2C_.CF.89.28n.29.2C_.CE.BDp.28n.29_.E2.80.93_prime_power_decomposition) counting a number's distinct prime factors
  + a differential form (esp. on an analytic space)
  + the symbol ϖ, a graphic variant of π, is sometimes construed as omega with a bar over it; see [π](https://en.wikipedia.org/wiki/Greek_letters_used_in_mathematics,_science,_and_engineering#.CE.A0.CF.80_.28pi.29)
  + The last carbon atom of a chain of carbon atoms is sometimes called the ω (omega) position, reflecting that ω is the last letter of the Greek alphabet. This nomenclature can be useful in describing unsaturated fatty acids.