Commonly Used Statistic Symbols

a	Regression constant, the intercept
α	Greek alpha; significance level in hypothesis testing, probability of Type I error
b	Regression coefficient, slope of the line
β	Greek beta, probability of a Type II error; also, a standardized regression coefficient (beta weights)
χ^2	Greek chi squared, a test statistic for several nonparametric tests
CI	Confidence interval around estimate of a population parameter
df	Degrees of freedom
e	Base of natural logarithms, $e = 2.7183$
η^2	Greek eta squared, index of variance accounted for in ANOVA context
f	Frequency (count) for a score value
F	Test statistic used in ANOVA, ANCOVA and other tests
γ	Greek gamma, population effect size
H_0	Null hypothesis
H_1	Alternative hypothesis; research hypothesis
λ	Greek lambda, a test statistic used in several multivariate analyses (Wilks' lambda)
μ	Greek mu, the population mean
M	Sample mean (alternative symbol for $\overline{X}$)
MS	Mean square, variance estimate in ANOVA
n	Number of cases in a subgroup of the sample
N	Total number of cases or sample members
p	Probability that observed data are consistent with null hypothesis
r	Sample Pearson product-moment correlation coefficient
r_s	Spearman's rank order correlation coefficient
R	Multiple correlation coefficient
R^2	Coefficient of determination, proportion of variance in Y attributable to Xs
R_c	Canonical correlation coefficient
ρ	Greek rho, population correlation coefficient
SD	Sample standard deviation
SEM	Standard error of the mean
σ	Greek sigma (lower case), population standard deviation
Σ	Greek sigma (upper case), sum of
SS	Sum of squares
t	Student's t, a test statistic
U	Test statistic for the Mann-Whitney U-test
$\overline{X}$	Sample mean
x	Deviation score
Y'	Predicted value of Y, dependent variable in regression analysis
z	Standard score in a normal distribution
$\|\,\|$	Absolute value
$\leq$	Less than or equal to
$\geq$	Greater than or equal to
$\neq$	Not equal to