

StatsUSquaredCDF

/T=k	Displays results in a table. <i>k</i> specifies the table behavior when it is closed.
<i>k</i> =0:	Normal with dialog (default).
<i>k</i> =1:	Kills with no dialog.
<i>k</i> =2:	Disables killing.

/WSTR=*waveListString*

Specifies a string containing a semicolon-separated list of waves that contain sample data. Use *waveListString* instead of listing each wave after the flags.

/Z

Ignores errors.

Details

Inputs to StatsTukeyTest are two or more 1D numeric waves (one wave for each group of samples) containing any numbers of points but with at least two or more valid entries.

The contents of the M_TukeyTestResults columns are: the first contains the difference between the group means $\bar{X}_i - \bar{X}_j$, the second contains SE (supports unequal number of points), the third contains the q statistic for the pair, and the fourth contains the critical q value, the fifth contains the conclusion with 0 to reject H_0 ($\mu_i = \mu_j$) or 1 to accept H_0 , with /NK, the sixth contains the *p* values

$$p = rank[\bar{X}_i] - rank[\bar{X}_j] + 1,$$

the seventh contains the critical values, and the eighth contains the Newman-Keuls conclusion (with 0 to reject and 1 to accept H_0). The order of the rows is such that all possible comparisons are computed sequentially starting with the comparison of the group having the largest mean with the group having the smallest mean.

V_flag will be set to -1 for any error and to zero otherwise.

See Also

Chapter III-12, **Statistics** for a function and operation overview; **StatsANOVA1Test**, **StatsScheffeTest**, and **StatsDunnettTest**.

StatsUSquaredCDF

StatsUSquaredCDF(*u2*, *n*, *m*, *method*, *useTable*)

The StatsUSquaredCDF function returns the cumulative distribution function for Watson's U² with parameters *u2* (U² statistic) and integer sample sizes *n* and *m*. The calculation is computationally intensive, on the order of binomial(*n+m*, *m*). Use a nonzero value for *useTable* to search a built-in table of values. If *n* and *m* cannot be found in the table, it will proceed according to *method*:

<i>method</i>	What It Does
0	Exact computation using Burr algorithm (could be slow).
1	Tiku approximation using chi-squared.
2	Use built-in table only and return a NaN if not in table.

For large *n* and *m*, consider using the Tiku approximation. To abort execution, press the **User Abort Key Combinations**.

Precomputed tables, using the algorithm described by Burr, contain these values:

<i>n</i>	<i>m</i>
4	4-30
5	5-30
6	6-30
7	7-30