Statistics LET Subcommands TAGUCHI SN00

TAGUCHI SN00

PURPOSE

Computes the Taguchi signal-to-noise (S/N) ratio for the "target is better" (= "nominal is better") case with a "variance is independent of the mean" subcase.

DESCRIPTION

For this "target is better" case, the S/N ratio is defined as:

$$SN00 = -20 \times \log 10(|s|)$$
 (EQ 2-14)

where s is the sample standard deviation.

SYNTAX

EXAMPLES

LET TAGUCHI = TAGUCHI SN00 Y LET TAGUCHI = TAGUCHI SN00 Y SUBSET TAG = 5

DEFAULT

None

SYNONYMS

The word TAGUCHI is optional (i.e., SN00 is a synonym for TAGUCHI SN00).

RELATED COMMANDS

TAGUCHI SN00 PLOT = Generates a target is better and variance is independent of the mean signal-to-noise

versus subset plot.

TAGUCHI SNO = Computes the target is better and variance is independent of the mean signal-to-noise

ratio.

TAGUCHI SN+ = Computes the larger is better signal-to-noise ratio.

TAGUCHI SN- = Computes the smaller is better signal-to-noise ratio.

REFERENCE

"Statistical Methods and Applications," Jack Elliot, Allied Signal, 1987 (pp. 4-3, 4-4).

APPLICATIONS

Experiment Design and Quality Control

IMPLEMENTATION DATE

94/2

PROGRAM

SKIP 25

READ GEAR.DAT DIAMETER BATCH LET A = TAGUCHI SN00 DIAMETER