TAGUCHI SN+

PURPOSE

Computes the Taguchi signal-to-noise (S/N) ratio for the "larger is better" case.

DESCRIPTION

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

$$SN = -10 \times \log 10 \left(\left| \frac{\sum \frac{1}{y^2}}{N} \right| \right) \tag{EQ 2-15}$$

where N is the number of observations and Y is the data variable.

SYNTAX

LET <par> = TAGUCHI SN+ <y>   <SUBSET/EXCEPT/FOR qualification>
where <y> is a response variable;
        <par> is a parameter where the computed Taguchi S/N ratio is stored;
and where the <SUBSET/EXCEPT/FOR qualification> is optional.

EXAMPLES

LET TAGUCHI = TAGUCHI SN+ Y
LET TAGUCHI = TAGUCHI SN+ Y SUBSET TAG = 5

DEFAULT

None

SYNONYMS

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

RELATED COMMANDS

TAGUCHI SN+ PLOT	=	Generates a larger is better signal-to-noise versus subset plot.
TAGUCHI SN0	=	Computes the target is better and variance is independent of the mean signal-to-noise ratio.
TAGUCHI SN00	=	Computes the target is better and variance is dependent on the mean 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 SN+ DIAMETER