TRIMMED MEAN

PURPOSE
Compute the trimmed mean for a variable.

DESCRIPTION
The mean is the sum of the observations divided by the number of observations. The mean can be heavily influenced by extreme values in the tails of a variable. The trimmed mean compensates for this by dropping a certain percentage of values on the tails. For example, the 50% trimmed mean is the mean of the values between the upper and lower quartiles. The 90% trimmed mean is the mean of the values after truncating the lowest and highest 5% of the values.

SYNTAX
LET <par> = TRIMMED MEAN <y> <SUBSET/EXCEPT/FOR qualification>
where <y> is a response variable;
<par> is a parameter where the computed trimmed mean is stored;
and where the <SUBSET/EXCEPT/FOR qualification> is optional.

EXAMPLES
LET A = TRIMMED MEAN Y1
LET A = TRIMMED MEAN Y1 SUBSET TAG > 2

NOTE
The analyst must specify the percentages to trim in each tail. This is done by defining the internal variables P1 (the lower tail) and P2 (the upper tail). For example, to trim 10% off each tail, do the following:
LET P1 = 10
LET P2 = 10
LET A = TRIMMED MEAN Y

DEFAULT
None

SYNONYMS
None

RELATED COMMANDS
TRIMMED MEAN PLOT = Generate a trimmed mean versus subset plot.
MEAN = Compute the mean of a variable.
WINSORIZED MEAN = Compute the Winsorized mean of a variable.
MEDIAN = Compute the median of a variable.
STANDARD DEVIATION = Compute the standard deviation of a variable.

APPLICATIONS
Data Analysis

IMPLEMENTATION DATE
Pre-1987

PROGRAM
LET Y1 = CAUCHY RANDOM NUMBERS FOR I = 1 1 100
LET P1 = 10
LET P2 = 10
LET A1 = TRIMMED MEAN Y1