

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
```