VARIANCE OF THE MEAN

PURPOSE
Compute the variance of the mean of a variable.

DESCRIPTION
The variance of the mean is:

\[ \text{VMEAN} = \frac{s^2}{N} \]  (EQ 2-18)

where \( s \) is the standard deviation of the variable and \( N \) is the number of observations.

SYNTAX
LET <par> = VARIANCE OF THE MEAN <y> <SUBSET/EXCEPT/FOR qualification>
where <y> is a response variable;
<par> is a parameter where the computed variance of the mean is saved;
and where the <SUBSET/EXCEPT/FOR qualification> is optional.

EXAMPLES
LET VARM = VARIANCE OF THE MEAN Y1
LET VARM = VARIANCE OF THE MEAN Y1 SUBSET TAG > 2

DEFAULT
None

SYNONYMS
VARIANCE OF MEAN
VARIANCE MEAN

RELATED COMMANDS
VARIANCE OF THE MEAN PLOT = Generates a variance of the mean versus subset plot.
MEAN = Compute the mean of a variable.
VARIANCE = Compute the variance of a variable.
STANDARD DEVIATION = Compute the standard deviation of a variable.

APPLICATIONS
Data Analysis

IMPLEMENTATION DATE
94/2

PROGRAM
LET Y1 = NORMAL RANDOM NUMBERS FOR I = 1 1 100
LET SD = VARIANCE OF THE MEAN Y1