

COEFFICIENT OF VARIATION

PURPOSE

Compute the coefficient of variation of a variable.

DESCRIPTION

The coefficient of variation is:

$$cv = \text{standard deviation}/\text{mean}$$

SYNTAX

LET <par> = COEFFICIENT OF VARIATION <y> <SUBSET/EXCEPT/FOR qualification>

where <y> is a response variable;

<par> is a parameter where the coefficient of variation value is saved;

and where the <SUBSET/EXCEPT/FOR qualification> is optional.

EXAMPLES

LET CV = COEFFICIENT OF VARIATION Y1

LET CV = COEFFICIENT OF VARIATION Y1 SUBSET TAG > 2

NOTE

Versions prior to 94/11 treated this command as a synonym for RELATIVE STANDARD DEVIATION. The relative standard deviation is:

$$\text{relsd} = 100 * \text{sd}/|\text{mean}|$$

That is, with the relative standard deviation, the sign of the mean is ignored.

DEFAULT

None

SYNONYMS

COEFFICIENT VARIATION

RELATEDCOMMANDS

RELATIVE STANDARD DEVI	=	Compute the standard deviation of a variable.
MEAN	=	Compute the mean of a variable.
STANDARD DEVIATION	=	Compute the standard deviation of a variable.
RELATIVE SD PLOT	=	Generate a relative standard deviation (versus subset) plot.

APPLICATIONS

Data Analysis

IMPLEMENTATION DATE

94/11 (earlier versions use a different definition)

PROGRAM

LET Y1 = NORMAL RANDOM NUMBERS FOR I = 1 1 100

LET CV = COEFFICIENT OF VARIATION X1