PURPOSE

A mathematical symbol denoting equality which serves 4 separate functions:

1. In conjunction with the LET command, it links output (on the left) with input or operation (on the right). For example,
   \[
   \text{LET } Y = \log(X)
   \]

2. In conjunction with the ROOTS sub-command under the LET command it allows functions to be written as the corresponding
equations. For example,
   \[
   \text{LET FUNCTION } F1 = \sin(X) \cdot \exp(-X)
   \]

3. In conjunction with SUBSET, EXCEPT and FOR, it is optionally included after the SUBSET, EXCEPT and FOR keywords. For
   example,
   \[
   \text{PLOT } Y \times \text{SUBSET MONTH = 7}
   \]

4. It is used as a logical operator for the IF command to test for equality. For example,
   \[
   \text{IF } A = 2
   \]
   \[
   \text{LET } B = 100
   \]
   \[
   \text{END OF IF}
   \]

SYNTAX

None

EXAMPLES

\[
\text{LET } Y = (X^{**}\text{LAMBDAA-1}) / \text{LAMBDAA}
\]

\[
\text{LET } A = \text{MEAN } Y
\]

\[
\text{LET } Y2 = \text{SORT Y1}
\]

\[
\text{LET FUNCTION } F1 = C \cdot \exp(-0.5 \times X \times X)
\]

\[
\text{LET } R = \text{ROOTS } X = \exp(-X) \text{ WRT X FOR } X = 0 \text{ TO } 2
\]

\[
\text{FIT } A + \exp(-B \times X) \text{ EXCEPT } X = 0 \text{ TO } 32
\]

\[
\text{PLOT } \sin(X) \text{ FOR } X = 0 \text{ TO } 6.28
\]

\[
3D-\text{PLOT } X \times Y \text{ FOR } X = 0 \text{ TO } 5 \text{ FOR } Y = 0 \text{ TO } 5
\]

\[
\text{LET } A = \text{INTEGRAL } \log(X) \text{ WRT X FOR } X = 1 \text{ TO } 2
\]

\[
\text{PLOT } Y1 \times Y2 \times Y3 \text{ VERSUS } X \text{ FOR } I = 1 \text{ TO } 30
\]

\[
\text{FIT } (A + B \times X) / (C + D \times X) \text{ FOR } I = 101 \text{ TO } 200
\]

\[
\text{HISTOGRAM } Y \text{ FOR } I = 20 \text{ TO } 50
\]

\[
\text{IF } A = B
\]

DEFAULT

None

SYNONYMS

None

RELATED COMMANDS

\[
< > = \text{A keyword denoting inequality.}
\]

\[
< = \text{A keyword denoting less than.}
\]

\[
< = \text{A keyword denoting less than or equal to.}
\]

\[
> = \text{A keyword denoting greater than.}
\]

\[
>= = \text{A keyword denoting greater than or equal to.}
\]

APPLICATIONS

Mathematical computations, data subsetting

IMPLEMENTATION DATE

Pre-1987

PROGRAM

\[
\text{PRINT } X \times Y \text{ SUBSET } Y = -999
\]