

TO

PURPOSE

The TO keyword serves 5 separate functions:

1. In conjunction with SUBSET/EXCEPT it specifies that the subset of interest is an interval rather than individual points. For example, PLOT Y X SUBSET MONTH 1 TO 7.
2. In conjunction with FOR at the end of the PLOT and 3D-PLOT commands (when plotting a function), it specifies that the dummy variable is to be incremented over 101 equally-spaced points. For example, PLOT X**2 FOR X = 1 TO 10.
3. In conjunction with FOR at the end of the ROOTS and INTEGRAL sub-commands under the LET command, it is optionally included to indicate the interval of interest. For example, LET A = ROOTS X**3 - 5*X**2 + 3 FOR X = -2 TO 2.
4. In conjunction with FOR in all other contexts, it is optionally included to indicate elements of the variable (the rows of the column) to be included in the operation. For example, PRINT X Y FOR I = 10 TO 20.
5. On a few commands (READ, ANDREWS PLOT, some DEX plots), it indicates a range of variables to use. For example,

```
SKIP 25
READ 2TO7M4.DAT X1 TO X7
```

SYNTAX

None

EXAMPLES

```
PLOT Y1 Y2 VERSUS X SUBSET LAB 4 TO 7
FIT A+EXP(-B*X) EXCEPT TEMP 0 TO 32
LET R=ROOTS X-EXP(-X) WRT X FOR X=0 TO 1
LET A=INTEGRAL LOG(X) WRT X FOR X=1 TO 2
PLOT Y1 Y2 Y3 VERSUS X FOR I = 1 TO 30
3D-PLOT X*Y FOR X=0 TO 5 FOR Y=0 TO 5
HISTOGRAM Y FOR I = 20 TO 50
FIT (A+B*X)/(C+D*X) FOR I = 101 TO 200
RETAIN Y FOR I = 20 TO 100
READ CALIB.DAT X1 TO X10
ANDREWS PLOT X1 TO X10
```

DEFAULT

None

SYNONYMS

None

RELATED COMMANDS

FOR	=	Allows row specification of a subset.
SUBSET	=	Specifies a subset of columns to be used in graphics and analysis commands.
READ	=	Read data from the terminal screen or a file.
ROOTS	=	Find the real roots of a univariate function.
INTEGRAL	=	Calculate the integral of a univariate function.

APPLICATIONS

Data subsetting

IMPLEMENTATION DATE

Pre-1987

PROGRAM

```
SKIP 25; READ UGIANSKY.DAT Y1 Y2 LAB
CHARACTER 1 2 3 4 5 6 7
CHARACTER MAPPING EXACT
PLOT Y1 Y2 LAB SUBSET LAB 3 TO 7
```