BASIC - BEGINNERS ALL-PURPOSE SYMBOLIC INSTRUCTION CODE

To connect your Teletype to the Time-Sharing System, press the ORIG key for the dial tone (speaker should be turned up). Dial the computer number to get the connect tone before entering the hello sequence.

In the hello sequence shown below, lower-case letters are used to indicate systems output and upper case for user's input. In the example, Ø is used to show the output of the Return key being depressed. This is a non-printing key. To disconnect your Teletype from the Time-Sharing System, give the operational command BYE.

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HELLO Ø
user number -- S10000 (must be 6 digits or 1 letter and five digits) Ø
system -- BASIC Ø
new problem name -- EXAMPL (any 1 to 6 characters) Ø

05      REM SINE EXPANSION SERIES FOR POSITIVE VALUES OF X IN RADIANS
10      PRINT "X=";
20      INPUT X
30      IF X < 0 THEN 200
40      LET F1=X
50      LET F2=1
60      FØR F=3 TØ 19 STEP2
70      LET F2=F*(F-1)*(-F2)
80      LET F1=F1+(X↑F/F2)
90      NEXT F
100     PRINT "SINE(X)=":F1
110     GØ TØ 10
200     PRINT "THE VALUE FOR X ASSIGN WAS NEGATIVE.  TRY AGAIN"
210     GØ TØ 10
99999   END
```

OPERATIONAL COMMANDS

LIST Ø	--XXXXX to list your program beginning at Statement No. XXXXX
RUN Ø	If you want your program to run
STOP Ø	If you want printing to stop
SAVE Ø	If you want your program saved for later use
UNSAVE Ø	If you want to destroy a previously saved program
CATALOG Ø	If you want names of programs saved for user number
NEW Ø	To erase current program and start a new program
OLD Ø	If in HELLO sequence would search for saved programs
SCRATCH Ø	Erases a current program but retains name
RENAME Ø	If you want to rename a program
TAPE Ø	Allows a program to be read in from a TTY on PPT
KEY Ø	Puts automatic line feeds back in for the user
BYE Ø	This forces the next user to say HELLO
LENGTH Ø	Gives the approximate character length of your program
RESEQUENCE Ø	Using X as the initial Statement No., resequence program starting at Statement No. Y by increments of Z, i.e., RESEQUENCE X,Y,Z
MERGE Ø	Combines programs PRØB1 and PRØB2 into a single program

← Key - Erases one character for each back error (spaces are considered characters)
Alt. Mode Key - If pressed, will erase an entire line.

Variables are single letters possibly followed by a single digit. A number may be up to 9 digits.

Hierarchy of Arithmetic Operators: 1.) The expression inside a parentheses pair is computed before the parenthesized quantity is used in further computations: 2.) Unary minus: 3.) Raising to a power is computed before multiply and/or divide which in turn are computed before addition and/or subtraction, in the absence of parentheses: 4.) Several arithmetic operators of the same order are computed left to right.

A line of print may contain 5 zones of 15 spaces each. Variables printed will be no more than 6 significant spaces each, except for integers. If the number is an exact integer the decimal point is not printed. Integers of up through 9 digits are printed in full. Any trailing zeros after the decimal point are not printed. For numbers less than 0.1, the form $X.XXXXX$ E-Y is used unless the exact number can be printed as a decimal fraction with six digits or less: i.e., .03456 is exact: 3.45600 E-2 has been rounded.

Correction to a Program

Changing a line - Type it correctly with the same line number
Inserting a line - Type it with a line number between those of the two existing. BASIC sorts your program statements for you.
Deleting a line - Type the line number only, followed by the "Return key."

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