rays larger than 11 elements, and all multi-dimension arrays must be declared using the DIM statement.

NUMERIC EXPRESSIONS

In the Model 100, the following numeric, relational and logical operators are available, and they are evaluated in the order shown. (Parentheses are evaluated from inner-most to outer-most. Operators shown at the same level in the hierarchy are evaluated left to right:)

Parentheses
^ (exponentiation)
+ , − (unary plus and minus)
* ,/ (multiplication and division)
\ ,MOD (Integer division 10 \ 3 = 3 and modulus division 10 MOD 3 = 1)
+ , − (addition and subtraction)
⟨,⟩, =, = ⟨,⟩ = ,⟩⟨ (relational operators)

NOT
AND
OR
XOR
EQV
IMP

NUMERIC FUNCTIONS

ABS—Returns absolute value
ASC—Returns ASCII code of a string
ATN—Computers arctangent
CDBL—Convert to double precision
CINT—Convert to integer
COS—Compute Cosine
CRSLIN—Return vertical line position of cursor
CSNG—Convert to single precision
EOF—Returns End-of-File status
ERL—Returns the line number of latest error
ERR—Returns the error code of latest error
EXP—Compute natural exponential
FIX—Truncate to a whole number
FRE—Return current amount of available memory
INSTR—Search a string for a substring
INT—Convert to integer
LEN—Compute length of a string
LOG—Compute natural logarithm
LPOS—Return column position of print head within the printer buffer.
MAXRAM—Return Model 100 RAM size
PEEK—Return value at a memory address
POS—Return column position of cursor
RND—Return pseudo-random number
SGN—Return algebraic sign
SIN—Compute trigonometric sine
SQR—Compute square root
TAN—Compute Tangent
VAL—Convert string to numeric value
VARPTR—Return memory address of a variable

STRING FUNCTIONS

CHR$—Returns ASCII character
LEFT$—Returns left portion of a string
MID$—Returns middle portion of a string. May also be used on the left side of the equal sign to replace the middle characters in a string.
RIGHT$—Returns right portion of a string
SPACE$—Returns a string of spaces

STR$—Converts a numeric value to string
STRING$—Returns a string of characters

SIMPLE CONTROL COMMANDS

CALL—CALL is used to execute a machine language subroutine from BASIC. Allows more parameters than USR.
IF . . . THEN . . . ELSE—Test relational expression. Perform THEN clause if the expression is true, perform ELSE clause (if present) if expression is false.
FOR . . . NEXT—This command gives BASIC a looping structure. An optional **STEP** value may be included.
GOSUB—Causes the BASIC program to execute the subroutine beginning at the line indicated, and then return to the statement following the GOSUB when a **RETURN** statement is encountered.
GOTO—Causes the BASIC program to branch to the line number indicated.
ON . . . GOSUB—Branch to appropriate subroutine.
ON . . . GOTO—Branch to appropriate line.

INTERRUPT COMMANDS

The Model 100 recognizes five interrupt commands:
ON COM GOSUB—Calls a subroutine when the computer receives data over the RS-232C line.
ON ERROR GOTO—Branches to an error handling routine if some error occurs while the program is executing.
ON KEY GOSUB—Calls a subroutine if you press one of the eight definable function keys.
ON MDM GOSUB—Calls a subroutine when the computer receives data over the modem.
ON TIME$ GOSUB—Calls a subroutine when the real-time clock reaches a certain time.
RESUME—Resumes program execution after an error. RESUME ends the error handling routine.

GRAPHIC/SOUND COMMANDS

BEEP—Causes the sound generator to emit a tone for about 1/2 second.
LINE—Draw a line on the screen. Optionally may draw a box (outline or filled.)
PRESET—Turn off an LCD pixel.
PSET—Turn on an LCD pixel.
SCREEN ON/OFF—Lock or unlock the screen label line.
SOUND—Outputs a tone of specified pitch and duration.
SOUND ON/OFF—Enables or disables sound during cassette loads and while the Model 100 is waiting for a carrier signal from the telephone modem lines.

OTHER COMMANDS

CLEAR—Clears all variable values, closes all open files, and optionally reserves string and high memory space.
CLS—Clears the screen
CLOAD—Loads a BASIC program from tape.
CLOAD?—Verify a cassette load of a BASIC program.
CLOADM—Loads a machine language file from tape.
CLOSE—Closes open files by number, or all files.
COM ON/OFF/STOP—Enable or disable communications interrupt.
CONT—Continue program execution after a STOP command or ⌷B R E A K⌷
CSAVE—Save a BASIC program on tape. Program may be saved in compressed or ASCII formats.
CSAVEM—Save a machine language program on tape, using start, end and entry addresses.
DATA—Defines a data set within a BASIC program.