

8. FUNCTIONS AND NAMED SUBROUTINES

Built-in Functions

Advan BASIC provides a number of built-in functions. In addition, it allows user-defined functions and named subroutines with 0 to 4 arguments. Most of the built-in functions are listed or described in the chapter covering the pertinent topic. The remaining functions are described in this chapter. Table 8-1 lists the functions that deal with real variables; Table 8-2 those dealing primarily with integers.

Table 8-1

ABS(X)	returns the absolute value of X
ATAN(X)	returns the arctan of X
COS(X)	returns the cosine of X
EXP(X)	returns e^X
FINT(X%)	treats X% as an unsigned integer from 0% to 65535% and converts it to a real number
FIX(X,Y%)	rounds X to Y% decimal places.
INT(X)	returns the integer part of X
LOG(X)	returns the natural logarithm of X
RND(X)	returns a random number with a value between 0 and X
SIN(X)	returns the sine of X
SGN(X)	returns 1 if $X > 0$, 0 if $X = 0$, and -1 if $X < 0$
SQR(X)	returns the square root of X
TAN(X)	returns the tangent of X
VAL(X\$)	translates a string into the number that it represents

Table 8-2

ABS%(X%)	returns the absolute value of X%
GETKEY	returns the ASCII code for a key that has been pressed, returns 0 if no key has been pressed
PEEK(X%)	returns an integer equal to the value at the memory location X%
PEEKW(X%)	returns an integer equal to the value of the word at memory location X% and X%+1%; (low order 8 bits at X% and high order 8 bits at X%+1%)
RND%(X%)	returns a random integer of value greater than 0 and less than or equal to X%. X% must be less than 256%.
STICK(X%)	returns an integer whose value depends upon the position of joystick numbered X% (see reference manual)
STRIG(X%)	returns 0 if the X% joystick firebutton is pressed; otherwise returns 1%
TIME	returns an integer whose value equals the number of sixtieth of seconds since last RTIME command

The reference manual gives additional information on all the functions listed in Tables 8-1 and 8-2.

User-Defined Functions

If there is an expression which you evaluate several times in a program, a user-defined function may be helpful. The format is