

DEF FN [variable1] (variable2, ...) = [formula]

Defines a function named FN variable1. The parameters (variable2, ...) are optional. A DD error occurs if a function is DEFINed more than once, and an ID error occurs if DEF FN is used in direct mode.

Example: 10 DEF FN A (X) = X * 3 + 4

DEF INT [letter1] - [letter2]

DEF SNG [letter1] - [letter2]

DEF STR [letter1] - [letter2]

[Extended] Resets the default variable type for variable names starting with letter1 through letter2 to INTeger, SiNGle precision floating point or STRing. - [letter2] is optional; if omitted, resets the default variable type for variable names starting with letter1.

Examples: DEF INT I
DEF STR A - B

Section 4: Numeric Formulas

A variable name is a letter followed by up to seven additional letters or digits, but not containing any reserved word. An array variable (declared in a DIM command) must have a subscript (formula, ...). A BS error occurs if each subscript is not between 0 and the declared size of the array. A SN error occurs if a variable has too few or too many subscripts. [Extended] The variable name may be followed by !, %, or \$.

Examples: X
DOG\$ [Extended]
A (1, J)

Integer numbers between -32768 and 32767 may be specified in decimal, in binary (prefixed by &) or in hexadecimal (prefixed by #).

Examples: 100
-32768
&11011
#FE01

[Extended] Numbers may be specified as sequences of decimal digits with optional decimal point, followed by an optional exponent. The exponent (if any) consists of the letter E, an optional sign, and decimal digits. The value of the number may be in the approximate range -1.7×10^{38} to 1.7×10^{38} , and has a precision of more than six decimal digits.

Examples: 3.14159
1.5E-4

A formula is any legal combination of numeric variables, numbers, parentheses, and the operators and functions listed below.

+	addition
-	subtraction, negation
*	multiplication
/	division
\	integer division [Extended]
^	exponentiation [Extended]
MOD	remainder

Arithmetic operators apply the desired operation to the given arguments. An OV error occurs if the result is outside the range of representable values.