

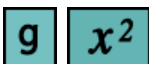
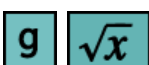


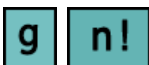






Mathematics Functions

The HP-12C calculator provides several basic mathematics and number alteration functions that are useful for specialized financial calculations as well as for general mathematics calculations:

Keys	Description
	Calculates the reciprocal of the number in the display (stack-X).
	Calculates the number in the stack-Y raised to the power of number in the display (stack-X).
	Calculates the square of the number in the display (stack-X). Available in the Platinum Model only.
	Calculates the square root of the number in the display (stack-X).
	Calculates the natural logarithm (base “e”) of the number in the display (stack-X).
	Calculates the exponential of the number in the display (stack-X).
	Calculates the factorial of the number in the display (stack-X).
	Rounds the number in the display (stack-X) to the current number of decimals.
	Calculates the integer part of the number in the display (stack-X).
	Calculates the fractional part of the number in the display (stack-X).












As a special feature, the RLM-12 Finance Center includes a tool with a complete set of scientific functions. To show it, expand the calculator pressing the  key and in the "Options Selection Menu", select the “[Scientific Functions](#)” option.

One Argument Operations in RPN mode

All the functions that require one argument only, are performed directly with the value in the stack-X register (displayed number). In **RPN** mode, the original value is saved in the Last-X register and the content of the stack-X is replaced with the function result.











Example: One Argument Function

To perform an operation, follow the “keystrokes” sequence, the result will be in the stack-X and the original argument in the Last-X register:

Operation	Keystrokes	Display (stack-X)	Last-X
$1 / 0.23$	“0.23” 	4.35	0.23
1.41^2	“1.41”  	1.99	1.41
$\sqrt{2}$	“2”  	1.41	2.0
$\text{LN}(27)$	“27”  	3.30	27.0
$e^{3.3}$	“3.3”  	27.11	3.3
$5!$	“5”  	120.00	5

Example: Function or

Type the number “4.347826087” and get the integer and fractional parts:

Keystrokes	Display	Comment
Type “4.347826087”	4.347826087	Type the number.
 	4.00	Calculate the integer part.
 	“4000000000”	Display the 10-Digits mantissa.
 	4.35	Recovers the original number.
 	0.35	Calculate the fractional part
 	“3478260870”	Display the 10-Digits mantissa.

Example: Function **f** **RND**

Type the number 4.347826087” and round it to 2 and 6 decimals:

Keystrokes	Display	Comment
Type “4.347826087”	4.347826087	Type the number.
f 2	4.35	Set to show 2 decimals in the display.
f PREFIX	“4347826087”	Display the 10-Digits mantissa.
f RND	4.35	Rounds the number to 2 decimals.
f PREFIX	“4350000000”	Display the 10-Digits mantissa.
g LSTx	4.35	Recovers the original number.
f 6	4.347826	Set to show 6 decimals in the display.
f RND	4.347826	Rounds the number to 6 decimals.
f PREFIX	“4347826000”	Display the 10-Digits mantissa.

One Argument Operations in ALG mode

The functions that require one argument only, are performed in the same way described above except that the Last-X value remains unchanged. So, in the examples, you can't use **g** **LSTx** to recall the original value of stack-X, instead you should enter the original number again.

Two Argument Operations **+**, **-**, **x**, **÷** and **y^x**

All the operations that requires two arguments, are performed considering the number in the stack-Y as the first argument, and the number in stack-X as the second argument, the stack drops, and the content of the stack-X is replaced with the operation result (in RPN mode, the original value in the stack-X is saved in Last-X register).

Example: Power Operation y^x

Calculate the value $2^{1.4}$, $2^{-1.4}$, -2^3 and $2^{1/3}$:

In **RPN mode** follow the next sequence:

Operation	Keystrokes	Result
$2^{1.4}$	"2" \square ENTER "1.4" \square y^x	2.64
$2^{-1.4}$	"2" \square ENTER "1.4" \square CHS \square y^x	0.38
-2^3	"2" \square CHS \square ENTER "3" \square y^x	-8.00
$2^{1/3}$	"2" \square ENTER "3" \square 1/x \square y^x	1.26

In **ALG mode** follow the next sequence:

Operation	Keystrokes	Result
$2^{1.4}$	"2" \square y^x "1.4" \square =	2.64
$2^{-1.4}$	"2" \square y^x "1.4" \square CHS \square =	0.38
-2^3	"2" \square CHS \square y^x "3" \square =	-8.00
$2^{1/3}$	"2" \square y^x "3" \square 1/x \square =	1.26