Two-Argument Math Functions

The HP-11C calculator provides a complete set of two arguments functions and operations. The arguments of the functions or operations are placed in the stack-Y and stack-X registers. Each time one of this functions is applied the following actions are performed:

- The function calculated using the stack-Y and stack-X as arguments.
- The stack is dropped.
- The original value in stack-X is stored in the Last-X.
- The displayed number in stack-X is replaced with the result of the function.
- The Stack is set to lift if a new number is entered.

Following is a description and examples of all of the one-argument functions. For convenience and easy reading, the functions are grouped in different categories.

General Operations

Keys	Description
[+]	Calculates the number in stack-Y plus the number in the stack-X.
[-]	Calculates the number in stack-Y minus the number in the stack-X.
[x]	Calculates the number in stack-Y times the number in the stack-X.
[÷]	Calculates the number in stack-Y divided by the number in the stack-X.
[y^x]	Calculates the number in stack-Y raised to the power of the number in the stack-X.

Examples (assumes FIX mode with 4 decimals)

Calculation	Keystrokes	Display (stack-X)	Last-X
4 + 5	"4" **[ENTER]** "5" **[+]**	**9.0000**	5.0000
4 - 9	"4" **[ENTER]** "9" **[-]**	**-5.0000**	9.0000
5 x 7	"5" **[ENTER]** "7" **[x]**	**35.0000**	7.0000
7 ÷ 3	"7" **[ENTER]** "3" **[÷]**	**2.3333**	3.0000
$2.5^{0.6}$	"2.5" **[ENTER]** "0.6" **[y^x]**	**1.7329**	0.6000

Percentage Functions

Keys	Description
[g] [%]	Calculates what percentage is stack-X of stack-Y = 100 • X / Y
[g] [Δ%]	Calculates stack-Y to stack-X percent-difference = 100 • (X - Y) / Y

Examples (assumes FIX mode with 4 decimals)

Calculation	Keystrokes	Display (stack-X)	Last-X
25% of 150	"150" **[ENTER]** "25" [g][%]	**37.5000**	25.0000
150 - 25%	"150" **[ENTER]** "25" [g][%] **[-]**	**112.5000**	37.5000
Growth rate from 62.5 to 78.3	"62.5" **[ENTER]** "78.3" [g][Δ%]	**25.2800**	78.3000

Polar-rectangular Coordinates Conversion Functions

Keys	Description
[f] [→R]	Convert a polar coordinate (stack-X = Radius; stack-Y = Angle) to orthogonal coordinates (X→stack-X, Y→stack-Y).
[g] [→P]	Convert a orthogonal coordinate (stack-X, stack-Y) to polar coordinate (Radius→stack-X, Angle→stack-Y).

Examples (assumes FIX mode with 4 decimals)

Calculation	Keystrokes	Display (stack-X)	Last-X
55.2∠23° to Rectangular	[g][DEG] "23" **[ENTER]** "55.2"	**55.2**	
	[f] [→R]	**50.8119**	55.2000
	[X⇄Y]	**21.5684**	55.2000
(24.5, 33.2) to Polar in rads	[g][RAD] "33.2" **[ENTER]** "24.5"	**24.5**	
	[g] [→P]	**41.2612**	24.5
	[X⇄Y]	**0.9351**	24.5

Probability Functions

Keys	Description
[f] [Py,x]	Calculates the permutations of stack-X elements chosen from a total of stack-Y elements; y! / (Y - X)! → stack-X.
[g] [Cy,x]	Calculates the combination of stack-X elements chosen from a total of stack-Y elements: y! / [X! •(Y - X)!] → stack-X.

Examples (assumes FIX mode with 4 decimals)

Calculation	Keystrokes	Display (stack-X)	Last-X
Permutations of 12 items taking 4 at a time	"12" **[ENTER]** "4" [f] [Py,x]	**11,880.0000**	4.0000
Combinations of 12 items taking 4 at a time	"12" **[ENTER]** "4" [g] [Cy,x]	**495.0000**	4.0000