STORAGE REGISTERS

R_0 [   ] R_4 [   ]

R_1 [   ] R_5 [   ]

R_2 [   ] R_6 [   ]

R_3 [   ] R_7 [   ]

STO **n**   stores x value in R_n.

RCL **n**   recalls value from R_n.

STO **−** **n**   x value subtracted from contents of R_n and difference stored in R_n.
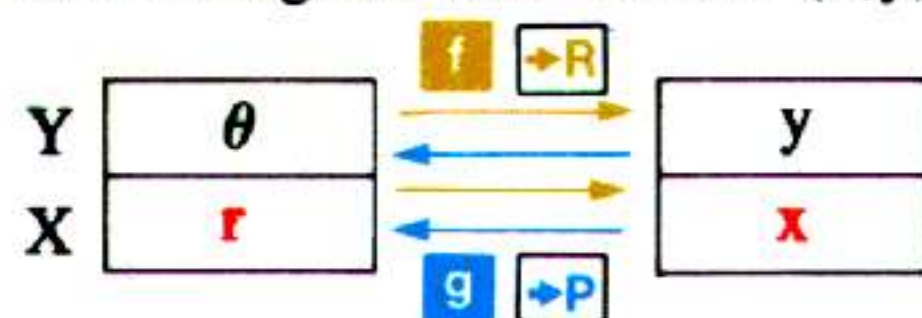
STO **+** **n**   x value added to contents of R_n and sum stored in R_n.

STO **×** **n**   x value multiplied by contents of R_n and product stored in R_n.

STO **÷** **n**   Contents of R_n divided by x value and quotient stored in R_n.

COORDINATE CONVERSION

f **→R**   converts polar coordinates (r,θ) to rectangular coordinates (x,y).

Y	θ		y
X	r		x

f **→R**

g **→P**

g **→P**   converts rectangular coordinates (x,y) to polar coordinates (r,θ).

CONTROLLING THE DISPLAY

f **FIX** **n**   shows numbers with "n" places to the right of the decimal point.

f **SCI** **n**   shows numbers in scientific notation with "n" places to the right of the decimal point.

f **ENG** **n**   shows numbers with "3 + n" digits and an exponent of ten that is the nearest multiple of three. For example, after pressing **f** **ENG** **1**, 1.2456×10^4 is displayed [**12.46   03**].

SUMMATIONS

Press **f** **REG** to clear storage registers R_0 through R_7 before using **Σ+**.

Σ+   stores summations of the numbers in the X- and Y-registers into registers R_3 through R_7 as shown below:

$$n \to R_3 \quad \Sigma xy \to R_5 \quad \Sigma x \to R_7$$
$$\Sigma y \to R_4 \quad \Sigma x^2 \to R_6$$

f **Σ−**   Subtracts same entries from the summations shown above in registers R_3 through R_7.

HEWLETT **hp** *PACKARD*

HP-25 Quick Reference Guide

CALCULATION RULES TO REMEMBER

1. To use any one-number function (e.g., **g** **1/x**, **f** **log**, **f** **sin**):
   a. Key in the number.
   b. Press the function keys.

For example to calculate ¼, key in **4** and press **g** **1/x**.

2. To use any two-number function (e.g. **−**, **+**, **×**, **÷**, **f** **y^x**):
   a. Key in the first number.
   b. Press **ENTER↑**.
   c. Key in the second number.
   d. Press the function keys.

For example to calculate 2×3, key in **2**, press **ENTER↑**, key in **3**, and press **×**.

AUTOMATIC MEMORY STACK

T	0.00	◄ Top
Z	0.00	
Y	0.00	
X	**0.00**	◄ Always displayed.

PROGRAM MEMORY

When the calculator is switched ON, program memory is filled with **GTO** [0] [0] instructions (keycode 13 00).

|	
00	◄Automatic stop instruction.
01	13 00
02	13 00
03	13 00
04	13 00
46	13 00
47	13 00
48	13 00
49	13 00	◄49 steps for your programs.

PROGRAM MODE

PRGM ▐▌▌▌▌▌ RUN

In program mode, only the following three functions are active. Every other function key is recorded in program memory when pressed.

SST Single step. Displays step number and keycode of next program memory step.

BST Back step. Displays step number and keycode of previous program memory step.

f **PRGM** Clears program memory to **GTO** [0] [0] instructions and resets calculator to step 00.

AUTOMATIC RUN MODE

PRGM ▐▌▌▌▌▌ RUN

The three active keys in program mode operate differently in automatic run mode.

SST Single step. Displays step number and keycode of current program memory step when held down; executes current instruction, displays result, and moves to next step when released.

BST Back step. Moves to previous step and displays step number and keycode of previous program memory step when held down; displays original contents of X-register when released. No instructions are executed.

f **PRGM** Resets calculator so that program execution will begin at step 00.

Executed In a Program

Function keys may be executed in a program. Program instructions are described below:

[R/S] Stops program execution.

GTO [n] [n] Branches program execution to step number specified. Execution then continues sequentially downward. Step numbers must be two digits (e.g., **GTO** [0] [8] executes a branch to step 8).

f **PAUSE** Stops program execution for 1 second and displays contents of X-register. Then continues program execution.

g **NOP** No operation. Calculator executes no operation and continues execution with the next instruction.

f $x<y$, $x\geq y$, $x\neq y$, $x=y$ Tests values in X-register against values in Y-register as indicated. Skips one step if the test proves false.

g $x<0$, $x\geq 0$, $x\neq 0$, $x=0$ Tests values in X-register against zero as indicated. Skips one step if the test proves false.

Pressed from the Keyboard

Function keys may be pressed from the keyboard. Normally, only two programming instructions are also pressed from the keyboard.

[R/S] Begins execution of a recorded program sequentially downward from the current program memory step.

GTO [n] [n] Specifies that the step number selected by "[n] [n]" becomes the current program memory step number. All step numbers must be two digits. (e.g., press **GTO** [0] [8] to branch to step 8).