



hp calculators

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












Calculator settings and resetting the calculator



Use of the Training Aids

HP provides these training aids to help readers learn about the HP 33S, or to gain experience in its use. They do not replace the manuals but offer a hands-on way to try some of the many HP 33S features. Readers who do not have an HP 33S but wish to learn about it can benefit by studying these aids too. The training aids use no colors so they can be printed on a black and white printer with no loss of information. The examples are provided purely for practice and do not represent any real situations or people.

Special Symbols

The training aids use special symbols to show keys on the HP 33S and characters on the screen (also called the display). The four cursor keys, see Figure 1, up, down, left and right, are shown as    . The keys next to them, ENG, SOLVE, MODES and DISPLAY are shown as    and . The  symbol refers to the  key pressed after the left-shift key . The  symbol refers to the  key pressed after the left-shift key .

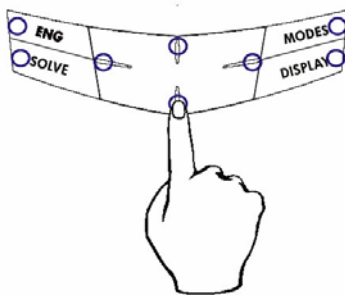











Figure 1

The green left shift key and the purple right shift key are shown as  and . Any other key pressed after one of these two is called a “shifted key” and is shown as if the shifted function were an ordinary key. For example to get the inverse sine function, called ASIN, it is necessary to press the green left shift key  and then the  key. This would be shown in the training aids as . The special symbols at the top and the sides of the screen are called “annunciators” and are shown as they appear, for example the right shift symbol  or the warning symbol .

The HP 33S uses the letters A through Z as the names of variables. It uses the same letters as program labels. When a key is pressed that needs a letter after it, the symbol A..Z is shown at the top of the screen. When this symbol is shown, keys with letters to their lower right return those letters when pressed. The keys are then shown in these training aids as the letters  through . Four other keys have extra labels, two labeled i and (i) are used for the special “index” register, and two more labeled : and SPACE provide these symbols when an equation is being typed.

Some examples will show the way the screen looks while the example is worked through, as in Figure 2.


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3 x SIN 25
4.2261826174E-1

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Figure 2

Special Key Combinations

There are a few special key combinations where two keys need to be held down at the same time. For example, if the display is too dark or too light, it is possible to change the contrast. This is done by pressing and holding down the .

key (this is the key at the lower left of the keyboard, also called the **ON** key), then pressing **+** repeatedly for a darker screen or **-** for a lighter screen, with the **C** key still held down. Once the contrast is suitable, both keys can be released.

Other combinations of holding down the **C** key while other keys are pressed also have special effects. The key should not be held down while another key is pressed unless a training aid says this needs to be done.

RPN and algebraic modes

The HP 33S has two calculation modes. RPN is the traditional HP calculation mode preferred by many experienced and professional users. Algebraic mode is used on some newer HP calculators and on most other calculators. The HP 33S allows users to choose either one, or to use both. Most of the training aids include examples in both modes.

Calculator Settings and Resetting the Calculator

The training aids assume that the HP 33S modes and settings are as they would be when a new HP 33S is turned on the first time. Changes to these settings needed for examples are described in the training aids. After some examples have been worked through, the HP 33S settings might be very different from the original ones. A quick way to return to the standard settings is to perform a MEMORY CLEAR, but note that this will clear all of the calculator memory.

Press and hold down the **C** key, then press and hold down the **e^x** key as well, and press the **Σ+** key. Now release all three keys, and the display will show MEMORY CLEAR to say that everything has been cleared from the calculator memory, and all settings have returned to their original values. **DO NOT DO THIS IF YOU WANT TO KEEP ANY PROGRAMS, EQUATIONS OR DATA THAT ARE IN YOUR CALCULATOR.** If you want to keep what is in memory but return the settings to their original values, you will have to change the settings one by one.