

Looking inside machines.

Read the description and identify the technical terms.

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Find terms in the text for these translations.

- _____ *n*-tablero de circuitos
- _____ *n*-visualizador
- _____ *n*-registro
- _____ *n*-tecla
- _____ *n*-tecla de operación
- _____ *n*-sensor

Inside a Calculator

When you push a button or key on a calculator, it makes contact with a sensor. A circuit board detects this contact and lights up the appropriate number on the screen or display. The calculator is programmed to light up certain lines to create each number.

If you press more numbers, the display will keep showing them until you press one of the operation keys (such as +, -, ×, ÷). When you do this, the calculator stores the number in a small memory called a register. As you enter a second number, the circuit board will display it as before and store it in another register. When you hit the equals key (=), the calculator will perform the chosen operation on the contents of the two registers and display the result.

How Does a Calculator Do Math?

Calculators use binary code to do math. Binary code is made up of the numbers zero and one. A calculator interprets all our commands in a pattern of 0s and 1s.

Transistors (like little switches) inside a calculator are turned on or off to create a binary record of the numbers that we enter. The calculator reads the binary code of the transistors and then displays it on the screen in the form of a decimal number (0-9).

