

The calculator

THE CALCULATOR the 30-second history

Electronic pocket calculators were

the must-have tools of every executive in the 1970s. The invention transformed daily lives by greatly expanding the maths capabilities of everyone from students to business people. It had taken 2,000 years to progress from the abacus, the ancient world's hand-operated 'calculating board' using beads on rods, to mechanical calculators. Wilhelm Schickard invented the 'calculating clock' in 1623, a mechanical adding/subtracting calculator operated by a series of gears. A device invented by the philosopher Blaise Pascal in 1642 also used geared wheels and could add and subtract two numbers directly and multiply and divide by repetition. In the following century, Charles Babbage produced what he called a difference engine, the forerunner of the computer. Mechanical calculators, such as the first commercially viable counting machine – the Arithmometer (manufactured until 1915) – and the US-patented push-button Comptometer, dominated office life up until the 1960s. Yet in barely a decade the calculator was transformed; a bulky, heavy desktop machine that ran on mains power, and cost more than a family car, became a cheap and compact battery-powered device that would slip into a pocket. Innovations such as integrated microchips and electronics that could run on batteries made this transition possible.

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3-SECOND BIOGRAPHIES

WILHELM SCHICKARD
1592–1635

German-Hebrew professor and astronomer credited with being the creator of the first calculator

BLAISE PASCAL
1623–62

French philosopher who developed the first working calculating machine

CLIVE SINCLAIR
1940–

British inventor and pioneer of the first pocket calculator

30-SECOND TEXT

David Boyle

The pocket calculator evolved from the abacus over four thousand years but technological advance is hastening its demise.

