Hewlett-Packard – a brief sketch

Hewlett-Packard was founded in 1939 in Palo Alto, California by William Hewlett and David Packard. Packard today serves as Chairman of the company's Board of Directors, Hewlett is the Chief Executive Officer and John Young was named to the Presidency in 1977. HP currently has 36,000 employees and 30 product divisions organized into six major product groups. There are HP plants in 17 US cities and eight overseas. In addition, there are 172 sales offices in 65 countries.

The company designs, manufactures and markets more than 3,500 products. Major product categories include electronic test and measuring instruments and systems, solid-state components, mini-computers, desk-top computers and electronic calculators, medical electronics and instrumentation for chemical analysis.

HEWLETT hp PACKARD

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Hewlett-Packard Calculators for Science, Business and Engineering
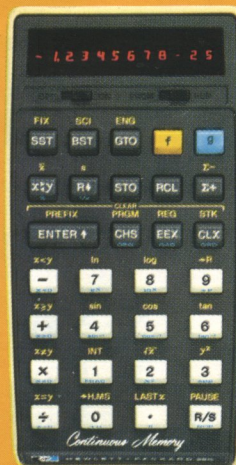

HEWLETT hp PACKARD

Choose your calculator by using this selection chart

All Hewlett-Packard consumer calculators (except HP-10) use RPN and a four-register operational stack, which provides automatic storage of intermediate results. Data can be manipulated within these registers in any desired sequence. This combination provides one of the most efficient systems known to computer science for solving complex calculations. Dynamic range for all calculators: $\pm 10^{-99}$ to $\pm 10^{99}$.

Model	HP 10	HP 19C	HP 25C	HP 29C	HP 31E	HP 32E	HP 33E	HP 37E	HP 38E	HP 67	HP 91	HP 92	HP 97
Scientific Calculator		●	●	●	●	●	●			●	●		●
Business Calculator	●	×	×	×				●	●	○		●	○
Programmable Calculator		●	●	●			●		●	●			●
Adressable Storage Registers	1	30	8	30	4	15	8	7	25	26	16	38	26
Last X-Register		●	●	●	●	●	●	●	●	●	●	●	●
y^x, $\sqrt{x}$		●	●	●	●	●	●	●	●	●	●	●	●
ln, e^x		●	●	●	●	●	●	●	●	●	●	●	●
log 10, 10^x		●	●	●	●	●	●		×	●	●	●	●
$1/x$		●	●	●	●	●	●	●	●	●	●	●	●
Trigonometric functions. π		●	●	●	●	●	●			●	●	●	●
Hyperbolic functions						●							
Degrees/radians/grads		●	●	●	●	●	●			●	●	●	●
D.MS ↔ decimal		●	●	●		●	●			●	●	●	●
Rectangular ↔ Polar		●	●	●		●	●			●	●	●	●
%	●	●	●	●	●	●	●	●	●	●	●	●	●
Δ %								●	●	●	●	●	●
n!		×	×	×				●	●	●	●	●	●
Conversions					●	●							
Mean, std. deviation		●	●	●		●	●	●	●	●	●	●	●
Weighted average		×	×	×			×		●	○	○		○
Linear regression constants		×	×	×		●	●		×	○	●	●	○
Linear estimate		×	×	×		●	●		×	●	○	●	○
Correlation coefficient		×	×	×			●		×	●		●	○
Normal distribution, Q and Q^{-1}		×	×	×			●	×	×	×			○
Compound interest		×							×	●		●	○
Annuity mode selector		×		×					●	●		●	○
360/365 day year										×		●	○
Amortization schedules		×	×	×				×	●	●		●	○
Internal rate of return									●	●		●	○
Number of uneven cashflows									20(×99)	44		30	44
Net present value		×	×						●	●		●	○
Bond calculations									×	○		●	○
Depreciation		×	×	×				×	×	○		●	○
Calendar		×		×					●	○		●	○
Rounding	●								●	●	●	●	●
Program lines		98	49	98			49		8-99	224			224
Subroutine levels		3		3			3			3			3
Conditional tests		10	8	10			8		2	10			10
Flags										4			4
Increment/decrement		●		●						●			●
Continuous C-MOS memory		●	●	●									
Magnetic cards										●			●
Printer	●	●									●	●	●

● built-in function
○ function available via std. software (magnetic cards)
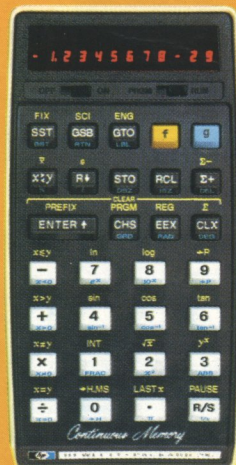× easily programmed (programming examples supplied)

HP-25C

The proven functions and dimensions of the HP-25 combined with the ability to retain both programs and stored data even after it's switched off. The HP-25C and its "Continuous C-MOS Memory" is another unique "first" for Hewlett-Packard.

HP-19C

HP-29C

HP-19C/HP-29C

Continuous C-MOS Memory Two complimentary programmable calculators with identical features and functions. 98 fully merged lines of program memory – retained via C-MOS, 30 addressable storage registers – 16 of which are retained. Plus all the necessary aids to help you develop usable programs – Indirect, Label and Relative addressing, 10 numeric labels, 10 conditional tests including DSZ and ISZ, 3 levels of subroutines and full editing capability. All in an autonomous package that, thanks to continuous C-MOS memory, retains your programs and your data virtually permanently within the calculator.

With the HP-19C you have the added benefit of a built-in quiet thermal printer for hard copy of program listings, data, working registers and statistical inputs.
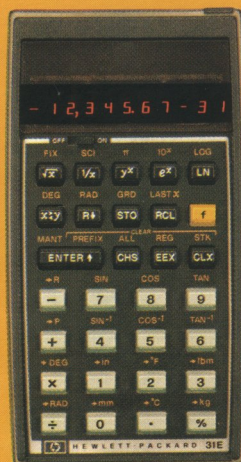
# Five new advanced calculators with Hewlett-Packard's computer logic

NEW! HP-31E

Basic scientific calculator for the young professional. Trigonometric and Logarithmic functions and their inverses. Rectangular/Polar and Degree/Radian Conversion. Inch/mm, $°F/°C$ and lbm/kg conversion. 4 addressable storage registers R_0–R_3.

NEW! HP-32E

Advanced scientific calculator for professionals. All the functions of the HP-31E plus hyperbolics and their inverses, ENG display format with exponents as multiple of 3, full set of two-variable statistics functions including Normal and Inverse Normal distribution and factorials. 15 addressable registers R_0–R_8, $R_{.0}$–$R_{.5}$. (available July 1978)
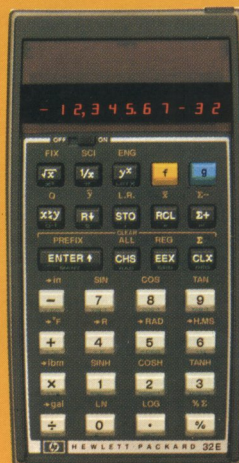
NEW! HP-33E

Programmable scientific calculator for professionals. 49 lines of fully merged memory, 3 levels of subroutines and 8 conditional tests. Integer, fraction and absolute value of a number. 8 addressable storage registers R_0–R_7.
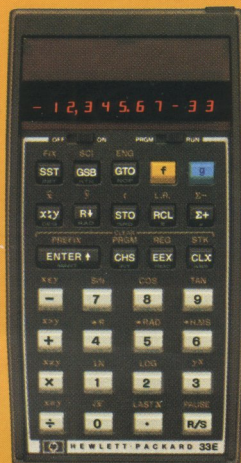
New features common to all Series E calculators

- New tilted display with wide-angle readability
- Improved legibility of large numbers through automatically inserted commas forming groups of three digits
- Fully formattable display with 10-digit Fix and 7 digit + 2 SCI notation
- New "Mantissa" function shows full ten-digit mantissa of number on display at any moment during calculation
- Coded error messages and self-check function.

NEW! HP-38E

Programmable financial calculator for businessmen. 8–99 program lines with automatic conversion of data registers into program memory. 4-variable compound interest, discounted cashflow analysis for up to 20 groups of cashflows (up to 99 CF's each!). Simple interest and calendar functions. Basic maths and statistics functions. 5 financial registers plus up to 20 (min. 7) addressable storage registers R_0–R_9, $R_{.0}$–$R_{.9}$.
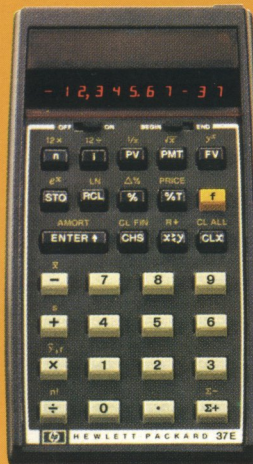
NEW! HP-37E

Basic financial calculator for businessmen. 4-variable compound interest, amortisation schedules, complete "retail" functions and full set of statistical functions. Plus basic mathematics: $1/x$, $\sqrt{x}$, LN, e^x, y^x, n! 5 financial plus 7 addressable storage registers R_0–R_6. (available July 1978)
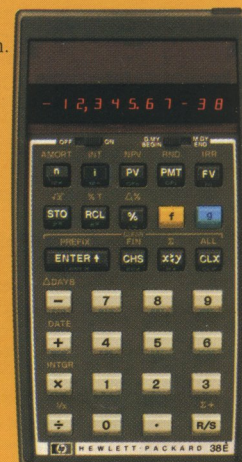
HP-10

Pocket-size printing office calculator with familiar adding machine keyboard. Buffered entry and click-action keys. Automatic constant, memory, total and subtotal, in addition to basic operations $+$, $-$, $\times$, $\div$ and %. Low noise thermal printer, labelled printouts. Choice of working with either display, printer or both.

HP-91

Printing Scientific Calculator. Size (W) 20.3 cm (8 in) ×
(L) 23 cm (9 in) × (H) 6.3 cm (2.5 in). Weight 1.13 kg (2.5 lb).
AC and battery operation. Extremely low-noise and fast
printer. Large LED display. Mathematical, trigonometrical,
logarithmic and statistical functions. 16 addressable registers.
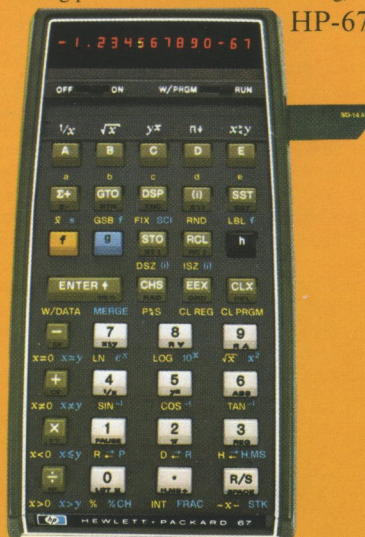1 "Last X"-register. 3 display formats.

HP-92 Investor

Financial calculator with built-in printer. Compound interest
calculations involving residual values and balloon payments
(leasing). Printout of loan amortisation schedules and 3 types
of depreciation tables. Bond and Note calculations, built-in
calendar, 360/365 switch. Investment analysis, net present value
and internal rate of return, for up to 30 uneven cashflows.
Full statistical capabilities. 38 addressable storage registers.
Labelled printouts, including listings of register contents.

New dimensions in fully programmable calculators

HP-67/HP-97: Incorporating outstanding features such as:
recording and loading of data stored in the 26 storage registers via
magnetic cards. 224 merged program lines. Each line holding up to
3 keystrokes for expanded programming power. Control of all reading/
recording operations by the
"intelligent" card reader – via
program control or manually.
Improved editing features to
easily correct or modify your
programs. Choice of 3 address-
ing systems – symbolic, relative
or indirect which effectively
increase the power of your
programs while decreasing the
length. 20 user definable
functions. 8 conditional test
functions. 3 levels of sub-
routines. 4 "flags". All com-
monly used mathematical,
trigonometric and statistical
functions. The "compatible"
HP-67 and HP-97 are the results
of Hewlett-Packard's extensive
research and experience in this
field. Both calculators are sup-
ported by an ever-growing array
of software application pacs
which presently cover such areas
as: Mathematics, Statistics, Electrical Engineering, Mechanical
Engineering, Business Decisions, Surveying, Clinical Laboratory and
Nuclear Medicine. More "pacs" in other applications areas are planned.
Plus a unique customer service – the HP-67/HP-97 Users Club – offers
a diverse range of applications programs written by the user, for the
user and administered by Hewlett-Packard.

HP-67

HP-97