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2 The Hewlett-Packard

MODEL	SPECIFICATIONS	Retail	YOUR COST
HP 25	Latest scientific programmable, 72 built-in-functions. All log and trig functions, the latter in radians and degrees; rectangular/polar conversions, common logs etc. Incl. instruction manuals, applications book, case 110/240 volts charger	\$145.00	123.25
HP 27	New Statistical, Scientific and Financial calculator all in one with 28 exponential, log and trig functions, all preprogrammed. . . 15 important statistical functions, 10 valuable financial functions, all functions above mentioned are preprogrammed. 20 Memories, 6 clearing options etc. etc. incl. Inst. manuals, case and 110/240 volt charger.	175.00	148.75
HP 21	A true Scientific calculator with 32 preprogrammed functions, including rectangular/polar coordinate conversions, register arithmetic, common log evaluation and two trig operating mode, includes; case, instruction manual and 110/240 volt charger	80.00	68.00
HP 55	Advanced Scientific, 49 step programmable with the famous 100-hour digital timer. It's accurate to plus or minus 0.01% and measures time in hours, minutes, seconds and even hundredths of a second. 86 keyboard command. 20 data storage registers. Has the famous patented 4-register operational stack and "Computer Logic" system. Includes; case, instruction manual and 110/240 volt charger.	335.00	284.75
HP 65	The most famous of them all, fully programmable, 100 step program memory, 9 addressable data memories, 51 keyboard functions and operation, you can operate the HP65 from the keyboard, program yourself or use it with pre-programmed or pre-recorded magnetic program cards. We have also available all kinds of program packs for the HP65, the greatest unit. Includes; Manuals, case, 110/240 volt charger. Standard pack complete with 40 blank program cards.	795.00	636.00
HP 80	The most powerful financial pocket calculator, calculates bond prices and yields, add-on to APR interest conversions, accumulated interest, trend lines, (linear regressions), rules of 78's, interest rebates and depreciation schedules plus unique 200-year calendar. 36 pre-programmed financial capabilities, a full range of standard business functions comes with the case, comprehensive financial applications book, manual and 110/240 volt charger.	295.00	249.95
HP 22	Specially designed for complete business management, Mathematical-Financial and Statistical functions right at your fingertips. 19 memories as: 5 financial memories, 4 operational memories, plus 10 addressable memories. . . 0 to 9 decimal places, at will. If numbers are too large or small, display automatically switches to scientific notation with a range of 10.99 to 10.99. Includes; case, instruction manual and 110/240 volt charger.	125.00	106.25
HP 91	The first battery operated Scientific calculator that delivers a printed record of all your calculations - - wherever you go. This 2 1/2 lb. unit is a more powerful version of the HP45 with added capability of creating a printed log. 16 addressable memory register, all the HP45 preprogrammed functions, engineering notation, performs regression and linear estimates: has three percent functions instead of two and keyboard buffering seven strokes deep, four selective clearing operations and three selectable printing modes. Includes: instruction manuals and charger.	500.00	425.00
HP 25C	Similar to the famous and best seller Hp 25 plus the HP 25C has a continuous memory and will retain the programming even if you shut off the calculator, a great unit	200.00	169.95
HP 67	Strip programming with 224 step program system, the new smart magnetic card makes the problem easier. . . Including charger.	450.00	382.00
HP 97	AC - DC thermal printer, same specifications as the HP 67, has 224 programmable steps, battery and AC operated, printed tape simplifies checking programs or calculations, incl. charger	750.00	637.50

All Hewlett Packard calculators carry one full year warranty on parts and labor by Hewlett Packard Company. For Hewlett Packard accessories and supplies please turn to the accessories page in this catalog.

THE FAMOUS SONNENTAG HEAVY DUTY FIELD CASES FOR HEWLETT-PACKARD AND TEXAS INSTRUMENTS CALCULATORS
Formed from 1/8" genuine top grain cowhide. Spring lock clasp in chromeplated brass. Belt slide 4" long. Black finish, polished. #6 cord linen stitching. Protect your calculator with a field case.



Model	For Models HP & TI	Your Cost
"Classic"	HP35, HP45, HP55, HP80, HP70, SR50A, SR51A & SR56	\$18.95
"Woodstock"	HP21, HP22, HP25, HP25C & Hp27	18.95
"Large"	HP65 and SR52	22.95

TRAVERSE & AREA (QUADRANT) . . .
TRAVERSE & INVERSE (QUADRANT) .
COORD. COMPASS ADJUST . . .
INVERSE & AREA
AREA BY COORDINATES
HUB TRAVERSE (QUADRANT) . . .
HUB INVERSE (QUADRANT) . . .
HUB SURVEY CALCS.
STATION & OUT
TANGENT OFFSET
OFFSET CURVE: EQUAL DIVISION . . .
OFFSET CURVE: DIVISION BY STATION .
GRADE SHEETS
CUT & FILL AREAS
COMPASS ADJUST: BY TRAVERSE . .
TRAVERSE/INVERSE/AREA
TRAVERSE/90°/INVERSE
TRAVERSE & 2 UNKNOWN DIST. . .
HUB TRAVERSE
2 INSTRUMENT SET-UP
(THEODOLITE & DIST. METER)
CURVE: FIELD ESTAB. FROM P.I.
CURVE: GIVEN Δ & R
TRIANGLE: 3 SIDES GIVEN
TRIANGLE: 2 SIDES & INCL. ANG. GIVEN . .
TRIANGLE: 2 ANG. & SIDE OPP. GIVEN . . .
VERTICAL CURVE
EQUAL DIVISION & ODD STATIONS

TRAVERSE & AREA

EXAMPLE

Key in program	
1 1000 *	A 3.00 00
2 1000 *	3 2 *
A 1.00 00	4 44.5940 *
3 4 *	5 325.061 *
4 45.0033 *	6 1229.701 *
5 325.05 *	C 1229.712 *
6 1229.808 *	4.00 00
7 770.118 *	3 3 *
A 2.00 00	4 45.0005 *
3 1 *	5 324.853 *
4 44.5958 *	6 1000.000 *
5 324.937 *	4 1000.000
6 1459.576 *	5 [F5] 3
7 999.881 *	6 105609.301 (deg)



TRAVERSE & AREA

PROGRAM	INPUT/OUTPUT:
1 R/S	25 STO X5
2 I REG	26 X=Y
3 X=Y	27 STO X6
4 Z+	28 RCL 7
5 I GTO 0	29 RCL 7
6 R/S	30 RCL 5
7 FIX 3	31 +
8 STO 6	32 STO 7
9 f2	33 +
10 ENTER	34 RCL 6
11 f1	35 STO+4
12 STO 5	36 X
13 f-	37 2
14 CHS	38 +
15 STO+5	39 STO+2
16 RCL 7	40 R/S
17 RCL 6	41 R/S
18 f+	42 RCL 4
19 CHS	43 R/S
20 STO+6	44 1
21 R/S	45 STO+3
22 G 0	46 RCL 3
23 R/S	47 GTO 05
24 f9	

Your Cost **\$25.00**

EARLE PROGRAMS: Survey Routines
Designed and Suitable for HP25 and HP25C

The HP-25 is here!

Hewlett-Packard's latest scientific programmable calculator in the new compact size.

The HP-25 is the lowest-priced Hewlett-Packard programmable pocket calculator. The HP-25 can retain and repeat a program up to 49 steps in length. So you don't have to press the same keys again and again when the same problem is worked with different data.

PRGM RUN

To write a program, simply set the HP-25 to PROGRAM mode. Then press the keys you'd normally press to solve the problem. Your program is retained in the HP-25's program memory.

R/S To solve the problem, switch to RUN mode and enter the data. Then press the "Run/Stop" key. Your answer appears on the HP-25 display. To solve other problems using the same program, just enter the new data and press the "Run/Stop" key again.

Because your program does the calculation automatically there's less chance for error than if you had to repeat the keystroke sequence yourself step by step. Also, it takes but a fraction of the time.

Program memory.

The HP-25's program memory consists of 49 steps, numbered 01 through 49. Your program remains stored for as long as you leave the HP-25 turned on, or until you erase or change your program.

08	23	51	04
LINE	STO	+	REGISTER 4
NUMBER	CODE	CODE	CODE
24	14	74	
LINE	PREFIX	f	PAUSE
NUMBER	CODE	CODE	CODE

The program memory uses a simple numeric code, based on the position of each key on the keyboard. For example, "31" means "3 rows down, 1st key"—the "ENTER" key. To conserve steps, each prefixed function (e.g., "1/x") takes only one program memory step.

BST SST

The "Back Step" and "Single Step" keys let you review the entire memory one step at a time, in either direction.

If you want to change your program, simply stop it at the appropriate step and key in a new entry, which will overwrite the previous one. To test your program a step at a time, switch to RUN and press "SST" repeatedly. You will see the numeric code when you press the key and the intermediate solution when you release the key.

Decision branching.

Like a computer, the HP-25 can be programmed to make decisions, because it can do conditional branching. You can program it to test the relationship between two values, by means of these tests:

$X < Y$	$X \geq Y$	$X \neq Y$	$X = Y$
$X < 0$	$X \geq 0$	$X \neq 0$	$X = 0$

Depending on the outcome of the tests, the HP-25 will automatically skip a step of the program... or it will continue through the program in sequence.

Or, by means of the "Go To" key, you can program the HP-25 to branch directly to a specified step, and then continue executing the program.

Pause feature.

Another new feature on the HP-25 is the "PAUSE" key. You can use it to momentarily interrupt (about one second per Pause command) the program execution and display the contents of the X register. This gives you the opportunity to review or write down intermediate results.

Absolute and Truncation functions.

The ABSolute value function allows you to take the absolute value of a number within a programmed calculation.

The INTeger/FRAction truncation function allows you to keep only the integer or fractional portion of a number. This is especially useful in

base conversion, random number generation, or for storing two numbers in one memory.

Advanced capabilities.

Most keys now perform three commands. Some commands are labeled in gold above a key, or labeled in blue on the underside of a key, and activated by first pressing the appropriate gold or blue prefix key(s).

Extra trigonometric capability.

R Rectangular/polar coordinate conversions: You can convert rectangular coordinates to polar coordinates or vice versa, enabling you to do vector arithmetic quickly, easily and accurately.

HMS Angle (time) conversions: You can convert angles (times) in decimal degrees (hours) to angles (times) in degrees (hours)/minutes/seconds... or vice versa.

Of course the HP-25 also provides the six basic trig functions—sin x, arc sin x, cos x, arc cos x, tan x, arc tan x.

Logarithmic functions:

ln	log
e^x	10^x

The HP-25 computes both natural and common logarithms as well as their inverse functions (antilogarithms).

Extra statistical capability:

Σ Summations: The "Σ" key automatically calculates Σx , Σx^2 , Σy , Σxy for statistical and vector calculations. Data may be deleted via the

"Σ—" key.

\bar{x}	s
\bar{x}	s

Mean and standard deviations: The HP-25 also calculates the mean and standard deviation of a group of data.

Your choice of display formats:

FIX	SCI	ENG
1.4641278	1.4641278	1.4641278

When you first turn on the HP-25, the display is rounded to two decimal places. By pressing "1" "FIX" and a number key (0 to 9), you can specify the number of decimal places. Or you can select scientific notation, by pressing "1" "SCI" and a number key to specify the number of decimal places (up to seven digits after the decimal point).

$-1.4641278-12$

New to HP pocket calculators is engineering notation, which allows all numbers to be shown in a modified scientific notation with exponents of 10 that are multiples of three (e.g., 10^3 , 10^6 , 10^{12}).

Whichever notation is selected, the HP-25 always maintains the complete 10-digit number internally. Also, the HP-25 switches the display automatically from fixed point notation to full scientific notation whenever a number is too large or too small to be seen in fixed point notation.

Superior HP memory power.

Instead of writing down and re-entering numbers manually, you can simply store them in any or all of the eight addressable memories, and recall them when needed. The memories may also be used for register arithmetic.

Plus other quality HP features.

In addition to the 8 addressable memories, the HP-25 has a four-memory stack—which makes possible the famous RPN logic system—and a "Last X" memory.

And a free applications book.

The HP-25 Applications Programs Book contains 54 programs drawn from the varied areas of number theory, trigonometry and analytical geometry, statistics, finance, surveying, and navigation. Thus, whether your interest lies in solving a particular problem, or in learning more about the programming power of your calculator, this free book will help you get the most from your HP-25.

Functions and features:

Programming: Program writing capability • Single step execution or inspection of a pro-

gram • Pause (to display intermediate result) • Program editing capability • 8 relational tests: $x < y$, $x \geq y$, $x \neq y$, $x = y$, $x < 0$, $x \geq 0$, $x \neq 0$, $x = 0$ • Conditional branching • Direct branching

Keyboard commands:

Trigonometric functions: 3 angular modes (degrees, radians, grads) • Sin x • Arc sin x • Cos x • Arc cos x • Tan x • Arc tan x • Rectangular coordinates ↔ Polar coordinates • Decimal angle (time) ↔ Angle in degrees (hours)/minutes/seconds

Logarithmic functions: Log x • Ln x • e^x • 10^x

Statistical functions: Mean and standard deviation • Positive and negative summation giving n, Σx , Σx^2 , Σy , Σxy

Other functions: Integer (gives only integer portion of number) • Fraction (gives only fractional portion of number) • Absolute (gives absolute value of x) • y^x • \sqrt{x} • $1/x$ • π • x^2 • % • Register arithmetic in all 8 addressable memories • Addition, subtraction, multiplication or division in serial, mixed serial, chain or mixed chain calculations

Data storage and positioning operations: Data entry • Stack roll down • x,y interchange • Data storage • Data recall • Change sign • Enter exponent

Warning indicators: "Error" appearing in display indicates improper operation. All decimal points lighted indicates low battery.

Memory:

4-memory stack • "Last X" memory • 8 addressable memories • Program memory for storage of up to 49 steps

Specifications:

AC: 115 or 230 V, $\pm 10\%$, 50 to 60 Hz, 5 watts.

Battery: 2.5 Vdc nickel-cadmium rechargeable battery pack.

Weight: HP-25: 170 g (6 ounces) with battery pack • Recharger: 142 g (5 oz.)

Shipping wt.: Approx. 7 kg (1.5 lb.)

Dimensions: Length: 13.0 cm (5.1 inches) • Width: 6.8 cm (2.7 inches) • Height: 3.0 cm (1.2 inches).

Operating temperature range: Operating 0°C to 45°C (32°F to 113°F).



The HP-25 outfit includes:

HP-25 Programmable Scientific Pocket Calculator • Rechargeable battery pack • Recharger/ac adaptor • Soft carrying case • Illustrated Owners Handbook • HP-25 Applications Programs • HP-25 Quick Reference Guide.

HP-25 Outfit





The Hewlett Packard

The HP-25C saves a program for instant reuse—without lost time for reprogramming.

complete with:

Applications Programs Book. Contains 54 applications programs related to algebra and number theory, trigonometry and analytical geometry, numerical methods, statistics, finance, surveying, navigation, and various games. Each application includes a full description of the problem, pertinent equations, the keystrokes required for the program memory, instructions for running the program, examples and solutions. To use these programs, no proficiency in programming is required. The first program in each section of the book contains, in addition to the basic explanations, a list of program keystrokes with comments, a step-by-step tracing of the stack register contents and a list of keystrokes used to solve the example problem. When a particularly interesting programming technique is used, it is described in a Programming Remarks section. This valuable book will help you get the most from your HP-25C, whether your interest lies in solving a particular problem or in learning more about the programming power of your calculator.

Owner's Handbook. A 120-page, spiral bound guide that takes you step-by-step through the operation of your HP-25C. The automatic memory stack, the function keys and programming all are explained in clear detail. Provides all information you need to make efficient use of the HP-25C in your work.

Adapter/Recharger. Lets you operate the HP-25C while the Battery Pack is recharging.

Soft Carrying Case with zipper and belt loop.

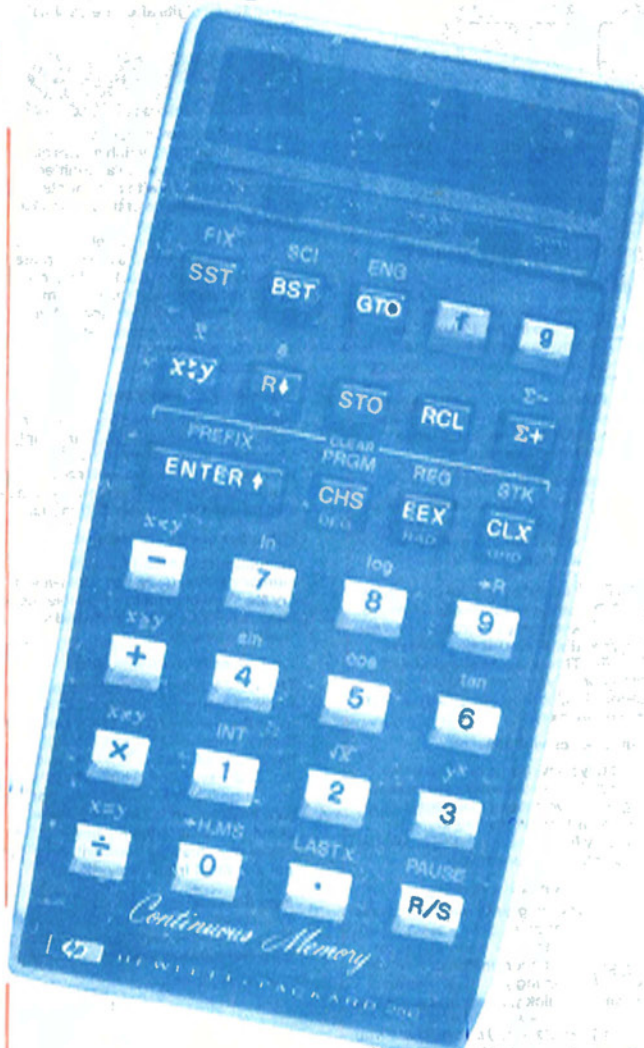
Optional accessories are available at extra cost, including: reserve power pack; security cradle. Details included with the HP-25C.

Quick Reference Guide. An easy-to-carry card that summarizes important basic instructions for the HP-25C.

Fast-charge Battery Pack that under normal use provides up to 3 hours of continuous operation.

YOUR COST

\$169⁹⁵



The continuous memory capability of the new HP-25C can provide tremendous values in time-saving and convenience to any scientist, engineer or student who uses a few long programs repeatedly—for example, if twenty percent of your programs will solve most of your problems.

The HP-25C retains a program—no matter how often you switch it on and off—by means of sophisticated complementary metal oxide silicon circuitry (C-MOS). The last program you store is saved, ready for use, until you clear it or enter a new program.

As a result, you can program a frequently-needed calculation once, and then perform it as often as necessary—hour after hour, day after day—without the bother or lost time caused by re-entering your program.

Lets you add special functions not on the keyboard.

Continuous memory makes it possible to add specialized functions to those already pre-programmed into the HP-25C.

For example, if you anticipate extensive work with hyperbolics, you can program them into the HP-25C where they will be retained by the continuous memory for repeated calculations at the touch of a key.

Many specialized functions can be programmed into the HP-25C for fast keystroke calculations, including conversions such as decimal degree/radian, octal/decimal; statistical functions; pricing analysis functions; real estate functions; business functions and many others.

Remembers data collected for later use.

The HP-25C with continuous memory not only retains all information in its 49-step program memory, it also retains all data in the 8 addressable registers and the LAST-X register.

This capability lets you use the HP-25C as a notebook to save data from previous problems for later use or to keep the sum of statistical data entries while taking samples in the field. For example, surveyors doing traverses in the field can keep intermediate results even while the calculator is turned off between readings.

Engineers will find the HP-25C convenient in storing conversion constants until needed later.

Power economy greatly extends battery operating time.

Since the HP-25C may be switched off between calculations without losing programs or data, battery operating time can be significantly extended.

Even when changing batteries, the HP-25C will retain your programs and data. When batteries are removed a capacitor temporarily furnishes power to the continuous memory circuits. Depending on the charge of the battery being replaced, time available for the exchange is between 5 seconds and 2 minutes.

The extended battery operating time made possible by C-MOS circuitry makes the HP-25C ideal for many uses in the field where time between data collections is prolonged; for example, navigation, surveying, and many other applications.

All the capabilities of the HP-25—plus continuous memory.

The HP-25C is identical in every respect to the HP-25 Scientific Programmable Pocket Calculator—with the added advantage of continuous memory.

The Hewlett-Packard HP-21 scientific calculator

5

32 pre-programmed functions . . . an addressable memory and famous HP quality—all in a unit so small it comfortably fits in a shirt pocket.

The HP-21 is the lowest-priced scientific pocket calculator HP offers, yet it has all the functions and features you'd expect to find in a scientific pocket calculator—even more than in the HP-35.

More trigonometric capabilities



Coordinate conversions—Convert polar coordinates to rectangular coordinates, or vice versa. This lets you do vector arithmetic quickly and easily.

DEG RAD

Angular mode selection—Just flip a switch to perform trig operations in either of two angular modes: degrees or radians. You can also convert angles from one mode to the other push-button fast.



Standard trig functions—The HP-21 gives you all of the standard trig functions: Sin x, Arc sin x, Cos x, Arc cos x, Tan x and Arc tan x.

Logarithmic capabilities



Standard log functions—The HP-21 also gives you all of the standard log functions: log x, ln x, e^x and 10^x. Full register arithmetic



Register arithmetic—The HP-21 has an addressable memory for storing constants or other data, for use later on in a calculation. Any of the four arithmetic operations may be performed directly upon this stored data.

Plus other quality HP features

The HP-21 also includes a four-register stack, which makes possible the famous RPN "computer logic" system (see pages 20, 21).

Light-emitting diode display—Recessed for better contrast in harsh lighting. Displays up to 10 significant digits (eight plus two-digit exponent in scientific notation), and appropriate signs. Two selectable display modes: fixed point, with automatic overflow and underflow into scientific, and scientific with a dynamic range of 10⁹⁹ to 10⁻⁹⁹. Automatic decimal point positioning. Selective round-off; range: 0-10 (in scientific, 0-8). "ERROR" appearing in display indicates improper operation. Lighted decimal points indicate low battery condition.

Functions and features

Keyboard commands:

Trigonometric functions: 2 angular modes • Sin x • Arc sin x • Cos x • Arc cos x • Tan x • Arc tan x • Rectangular coordinates ↔ Polar coordinates

Logarithmic functions: Log x • Ln x • e^x • 10^x

Other functions: y^x • √x • 1/x • π • Register arithmetic • Addition, subtraction, multiplication or division in serial, mixed serial, chain or mixed chain calculations

Data storage and positioning operations: Data entry • Stack roll down • x, y interchange • Data storage • Data recall • Change sign • Exponent entry

Memory:

4-register stack • Addressable memory

Specifications:

Power: AC: 115 or 230 V, ±10%, 50-60 Hz • **Battery:** 350 mw nickel-cadmium rechargeable battery pack

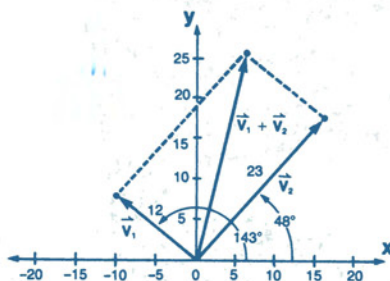
Weight: HP-21: 6 ounces (170 g) with battery pack • **Recharger:** 5 ounces (142 g) • **Shipping weight:** Approx. 1½ lbs. (680 g)

Dimensions: Length: 5.1 inches (13.0 cm) • Width: 2.7 inches (6.8 cm) • Height: 1.2 inches (3.0 cm)

Operating temperature range: 32° F to 113° F (0° C to 45° C)

THE HP-21

Scientific Pocket Calculator Features and Specifications

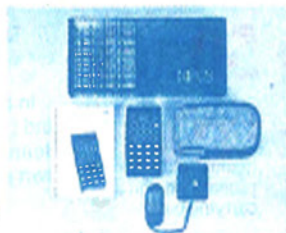


Instructions

1. Set calculator to **degrees mode** DEG RAD
 2. Convert \vec{V}_1 to rectangular coordinates and store x
- 143 ENTER 12 →R STO CLX → 0.00

The HP-21 outfit includes:

- HP-21 Scientific Pocket Calculator • Rechargeable battery pack • 115/230 V AC adapter/recharger • Soft carrying case • Illustrated Owner's Handbook



HP-21 Outfit

TRIGONOMETRIC FUNCTIONS:

Sin x • Arc sin x
Cos x • Arc cos x • Tan x
Arc tan x • Use in either Degrees or Radians Mode • Rectangular ↔ Polar Coordinate Conversion

LOGARITHMIC FUNCTIONS:

Log x • 10^x • Ln x • e^x

OTHER FUNCTIONS:

Addition, Subtraction, Multiplication or Division in Serial, Mixed Serial, Chain or Mixed Chain Calculations. Full Four Function Register Arithmetic.
Y^x • 1/x • √x • π

DISPLAY:

- 10 Significant Digits (8 + 2 digit exponent displayed in Scientific Notation) with trailing zeros suppressed
- Fixed Decimal Notation with Automatic Overflow and Underflow into Scientific Notation
- Scientific Notation with Dynamic Range of 10⁹⁹ to 10⁻⁹⁹
- Automatic Decimal Point Positioning and Selective Round-off
- Indicators for improper operations (ERROR in display) and low battery condition (lighted decimal points)

- Light-emitting diode (LED) display recessed for better contrast in harsh lighting

MEMORY

- Four-register Operational Stack (automatic memory)
- Stack Roll Down
- x, y Register Interchange
- Separate Addressable Memory with full Register Arithmetic

DESIGN SPECIFICATIONS

- Operates 3 to 5 hours on rechargeable batteries (under 6 hours to recharge) or AC
- Specially designed recessed plug to prevent erroneous insertion of improper unit

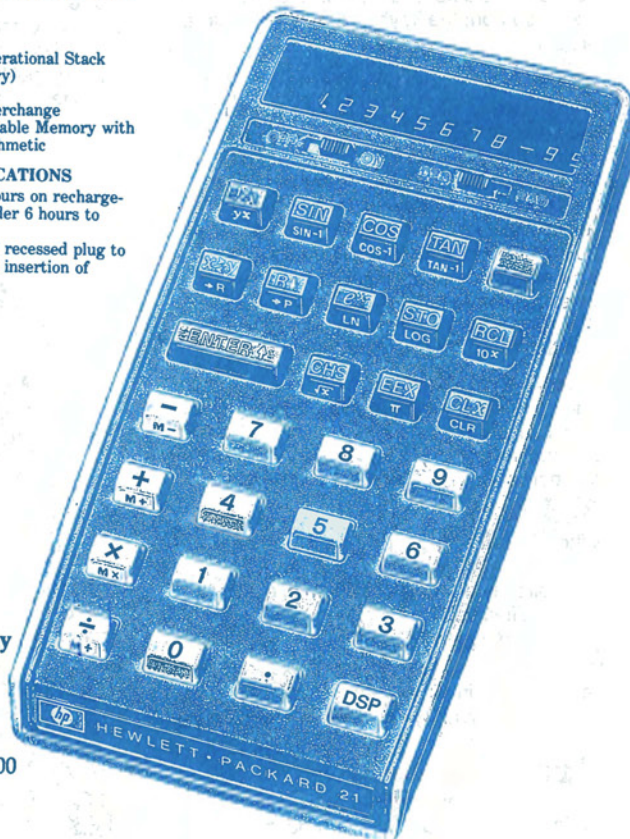
- Solid state electronics with all critical connections gold-plated
- Tactile feedback keyboard. Positive contact action assures accurate entry of data
- Heavy gauge compact case contoured to fit the hand
- Ultrasonically welded impact resistant case prevents entry of dust and moisture
- Vinyl liquid-barrier shield under keyboard sealed to prevent entry of moisture
- Keys are double injection molded to prevent wear

PHYSICAL SPECIFICATIONS:

- Calculator Length: 5-1/8" (13.02 cm)
- Calculator Width: 2-11/16" (6.83 cm)
- Calculator Height: 1-3/16" (3.02 cm)
- Calculator Weight: 6 oz. (170.1 g)
- Recharger Weight: 5 oz. (141.8 g)
- Shipping Weight: approx. 1½ lbs. (680 g)
- Operating Temperature Range: 32° F to 113° F (0° C to 45° C)
- Charging Temperature Range: 59° F to 104° F (15° C to 40° C)

POWER REQUIREMENTS:

- AC: 100-127 v/200-254 v, ± 10%, 50 to 60 Hz, 5 watts
- Battery: 350 mw derived from nickel-cadmium rechargeable battery pack



YOUR COST FROM US

\$68⁰⁰



The Hewlett Packard HP-67 give you exceptional programming power

Programming power you won't outgrow.

As your needs increase, you can be confident of your capacity to handle them—because the HP-97 and the HP-67 give you the power you need to solve the most lengthy and repetitive problems you are ever likely to encounter.

10 User-Definable Keys.

There are ten user-definable keys you can use for any special function you may require—such as defining portions of your program for subroutines or branches. They may be executed from the keyboard or from within a program. In addition, there are ten numerical labels (LBL 0 thru LBL 9). These user-definable keys and labels may be executed from the keyboard or from within a program.

PAUSE

If you need to key in data or load a card in the middle of your program or to see an intermediate answer—no problem. The PAUSE function initially interrupts program execution and displays current results for about 1 second. At that time, you can optionally enter data from the keyboard or load magnetic cards. The interruption is extended for as long as necessary. If you want the program stopped indefinitely, you can use the R/S (Run/Stop) function.

Direct Branching

Though program steps are executed sequentially in many programs, you have the power to transfer (branch) program execution to any part of program memory you desire.

GTO Go To.

When followed by a label designator (A through E, f A through f E, or 0 through 9) GTO directly branches program execution to the specified label.

Subroutines

When a series of instructions is executed several times in a program, you can save program memory by executing that series as a subroutine.

GSB Go Subroutine.

A GSB instruction followed by a label designator (A through E, f A through f E, 0 through 9) branches program execution to the label specified just as a GTO instruction does. But, using the GSB instruction, program execution is then "returned" automatically to the step following the GSB instruction when the next RTN (Return) instruction is executed (see following illustration.)

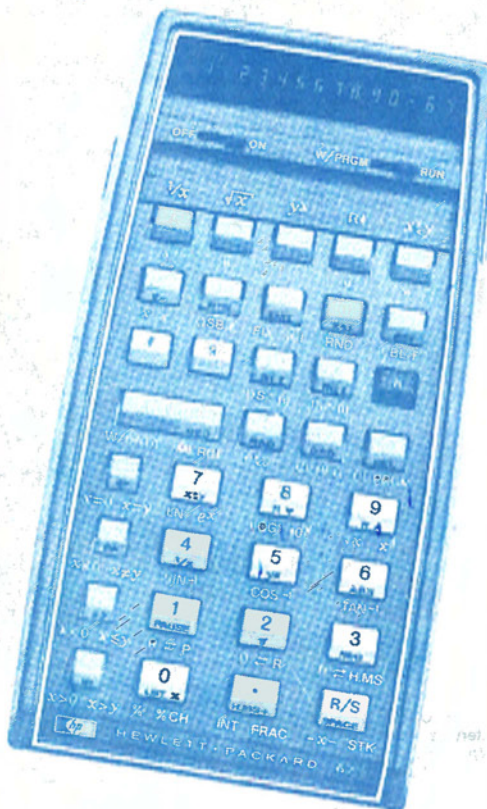
A GSB instruction can also be used within a subroutine to a depth of three levels.

The HP-67 Fully-Programmable Pocket Calculator.

Provides the identical power of the HP-97.

The HP-67 is ideal for those who want the powerful features of the HP-97, but do not require a printing capability. The HP-67 is completely compatible with the HP-97. Programs recorded on one unit may be loaded and executed on the other—even the print commands. (e.g., when the HP-67 executes a Print X command, it pauses, and displays the current results).

Used separately—or together—these compatible fully-programmable calculators do the job faster and with less chance for error.



\$382⁵⁰

YOUR COST

Complete with manual, battery pack, recharging unit and carrying case.

1. Moving Average
Follows trends in data.
2. Tabulator
Adds columns and rows simultaneously for tabular data.
3. Curve Fitting
Fits straight lines, exponential curves, logarithmic curves or power curves to data.
4. Calendar Functions
Calculates days between dates, a future date or past date, or day of the week.
5. Annuities and Compound Amounts
Solves problems involving annuities or compound amounts. Both ordinary annuity and annuity due problems with and without balloon payments are covered.
6. Follow Me
The programmable program. Perform a sequence of calculations once and the sequence is automatically programmed—without switching to program mode.
7. Triangle Solutions
Solves for the unknowns of any defined plane triangle.
8. Vector Operations
Addition, cross product, dot product, and coordinate transformation for two-dimensional and three-dimensional vectors.
9. Polynomial Evaluation
Solves cubic and quadratic equations and evaluates up to third degree polynomials for arbitrary real values of
10. Matrix Operations
Finds determinant and inverse for 3 x 3 system. Also, allows multiplication of 3 x 3 matrix by column matrix.
11. Calculus and Roots of f(x)
Approximates the derivative of a function at a point, evaluates a function at a point and approximates the integral for a finite interval for a user specified function f(x). Also, approximates real roots of f(x).
12. English—SI Conversions (Metric Conversions)
20 common unit conversions.
13. Arithmetic Teacher
Generates addition, subtraction, multiplication, and division problems for preschool and elementary students.
14. Moon Rocket Lander
Exciting action game simulating landing a rocket on the moon.
15. Diagnostic Program
Checks calculator functions.

In addition to the Standard Pac Handbook and prerecorded cards, you receive a head cleaning card, 24 blank program cards for your own programs and a program card holder.

RETAIL \$450.*

The Hewlett Packard The new HP-27

Perhaps the most useful calculator ever designed for scientists and engineers.

The enormous variety of preprogrammed functions on the new HP-27—more than Hewlett-Packard has ever made available in one pocket calculator—gives you solutions to virtually every calculation required in science and business management.

28 exponential, log and trig functions— all preprogrammed.*

The HP-27 gives you all the most-used exponential, log and trig functions—including sines, cosines, tangents and their inverses in three angular modes; natural and common logs and anti-logs; π ; related arithmetic functions; coordinate conversions; angle conversion, angle addition and subtraction.

Physical Specifications:

- Calculator length: 130.2 mm (5-1/8")
- Calculator width: 68.3 mm (2-11/16")
- Calculator height: 30.2 mm (1-3/16")
- Calculator weight: 170.1 g (6 oz.)
- Recharger weight: 141.8 g (5 oz.)
- Shipping weight: 680 g (1-1/2 lb.)
- Operating temperature range: 0°C to 45°C (32°F to 113°F)
- Charging temperature range: 15°C to 40°C (59°F to 104°F)
- Storage temperature range: -40°C to 55°C (-40°F to 131°F)
- Power requirements: AC: 115 or 230V, $\pm 10\%$, 50 to 60Hz
- Battery: 2.75 Vdc nickel-cadmium rechargeable battery pack

The HP-27 Scientific/Plus Pocket Calculator comes complete with:

- Battery pack that under normal use provides 3 hours of operation and fully charges in under 6 hours.
- Recharger/AC adapter that lets you operate the calculator on AC while the battery pack is recharging.
- Soft carrying case with belt loop.
- Illustrated Owner's Handbook with instructions and sample problems.



The HP-27 Scientific/Plus Pocket Calculator Features

15 important statistical functions— all preprogrammed.*

Many statistical functions useful in both science and business are provided by the HP-27—including three new functions: variance, correlation coefficient and normal distribution. Summations of data points are stored for easy access. What's more, you can adjust or correct input data without having to repeat an entire calculation. Once your data is keyed in, you can calculate the means, standard deviations and variances for two variables. You can also calculate linear regression, linear estimates and the correlation coefficient for two variables. In addition, you can calculate the density function and upper-tail area under a normal distribution curve.

10 valuable financial functions— all preprogrammed.*

For convenience in solving both personal and job related business problems—such as mortgages, compound interests and sinking funds—all fundamental financial functions are preprogrammed into the HP-27 to eliminate the need for bulky books of equations and interest tables. Two new preprogrammed functions—net present value and internal rate of return for uneven cash flows—facilitate capital budgeting and resource allocation. In addition, the HP-27 provides three separate percentage functions for ease in calculating margins, markups, discounts, percents of totals, etc.

Mathematical Functions:

- \sin, \cos, \tan — Trigonometric functions
- $\sin^{-1}, \cos^{-1}, \tan^{-1}$ — and their inverses
- DEG, RAD, GRD — Degrees, radians, and grads mode
- \ln, e^x — Natural log and antilog
- $\log, 10^x$ — Common log and antilog
- y^x, x^2 — Exponential functions
- $\rightarrow R, \rightarrow P$ — Rectangular/polar coordinate conversion
- H.MS+, H.MS- — Time (angle) addition and subtraction in hours, minutes and seconds
- $\rightarrow H.MS, \rightarrow H$ — Time (angle) conversion in hours, minutes and seconds to decimal hours (degrees).
- $1/x, \sqrt{x}, \pi$ — Convenient math functions
- $+, -, \times, \div$ — Arithmetic functions

Statistical Functions:

- $\Sigma+$ — Accumulates x, y, x^2, y^2, xy, n
- $\Sigma-$ — Deletes unwanted data
- L.R. — Linear regression coefficients
- \hat{y} — Linear estimate
- r — Correlation coefficient
- \bar{x} — Mean—two variables
- s — Standard deviation—two variables
- VAR — Variance
- N.D. — Normal distribution
- $n!$ — Factorial

Financial Functions:

- n — Number of periods
- i — Periodic interest rate
- PMT — Periodic payment amount
- PV — Present value of money
- FV — Future value of money

- NPV — Net present value
- IRR — Internal rate of return
- % — Percent
- $\Delta\%$ — Percent difference
- $\% \Sigma$ — Percent of total

Data Manipulation; display control, clearing options; storage functions:

- ENTER \uparrow — Separates numerical entries
- $x \leftrightarrow y$ — Exchanges contents of x and y stack registers
- R \downarrow — Rolls down contents of stack registers
- CHS — Changes the sign of a number
- EEX — Enter exponent
- LAST x — Recalls last entry after an operation
- FIX — Sets fixed decimal notation display
- SCI — Sets scientific notation display
- ENG — Sets engineering notation display
- CLx — Clears display
- CLEAR STK — Clears stack
- CLEAR REG — Clears addressable registers, financial registers and LAST x.
- CLEAR Σ — Clears summation registers
- CLEAR PREFIX — Clears prefix key
- RESET — Clears financial status for a new problem.
- STO — Stores displayed value into addressable register.
- RCL — Recalls a number to the display from an addressable register.
- [f] — Gold shift key; selects functions printed in gold on keyboard.
- [g] — Black shift key; selects functions printed in black on front face of keys.

\$148⁷⁵

YOUR COST FROM US

The Hewlett-Packard HP-22

Unlike any other business pocket calculator available today.

The uncompromising HP-22 gives you an ideal combination of the financial, mathematical and statistical capabilities you need in modern business.

The new HP-22 pocket calculator is a complete and indispensable management tool for anyone who needs to evaluate and analyze business problems quickly, easily and accurately. With the HP-22, you have the solution to virtually every calculation required for modern business management—right at your fingertips.

Fully integrated for speed and accuracy.

All the fundamental financial functions of the HP-22 are integrated with a comprehensive range of the statistical and mathematical functions needed in today's business world. With it, you can handle everything from simple arithmetic to complex time-value-of-money computations including interest rates; rates of return and discounted cash flows (net present value and internal rate of return) for investment analysis; extended percent calculations; accumulated interest/remaining balances, amortization and balloon payments. You can even handle planning, forecasting and decision analysis.

Built-in functions for ease of use.

All the financial equations, statistical formulas and mathematical functions are built-in the HP-22. All you have to do is key in your data, press the appropriate keys, and see your answers displayed—in seconds.

The gold key function.

The gold key relates to the gold legends on the keyboard, giving you access to three additional financial functions and thirteen additional mathematical and statistical functions.

The financial capabilities.

12X 12+ ACC INT BAL
n I PMT PV FV

The five keys in the top row of the HP-22 are the basic financial keys that replace equations and interest tables. To use any of the additional functions, press the gold key first. When you enter three known values with the financial keys, you can solve for another unknown value. For example: enter amount of present value [PV]; enter number of periods involved [n]; enter future value [FV]. Then, push [I] and get interest displayed automatically.

Expanded percentages capability.

%Σ Δ%
□ %

Percentage is the common standard of measurement in the business and financial world. For this reason, the HP-22 provides three separate percentage function keys. The [%] key is used to calculate a percentage. For example, to calculate 4% of a displayed number, just key in 4 and press the [%] key. There is no need to convert the 4% to its decimal equivalent of .04.

Memory:

10 separate addressable memories with full register arithmetic • 5 financial memories • 4 operational stack memories with stack roll-down for review.

The [Δ%] key is used to compute the percentage difference (ratio of increase or decrease) between two numbers. The [%Σ] key is used to find what percentage one number is of another number or of a total sum. The HP-22 saves the base number for multiple percentage calculations of the same base number.

The statistical capabilities.

L.R. ŷ Σ- x s
□ □ □ □ □

In addition to the financial capabilities, the HP-22 gives you advanced statistical capabilities for planning, forecasting and analysis. Using the [Σ+] key, you can enter statistical data into five of the ten addressable memories, where it remains unaffected by most other calculations. What's more, using the [Σ-] key you can adjust or correct input data without having to repeat the entire calculation. For example, to project sales, key in past performance data, then press the [L.R.] key. Then key in the number of the forecast period and press the [ŷ] key to obtain sales at that future point in time. To obtain an average, key in all data, then press the [x] key. To find standard deviation (a measure of statistical validity), key in your data, then press the [s] key for the answer.

The mathematical capabilities.

In e^x y^x √x
- + × ÷

The HP-22 gives you virtually all the math capabilities you need in business, such as logs, antilogs, exponentiation and root extraction so you may work out your own solutions to unusual individual problems.

Expanded memory capacity.

In addition to the 5 financial memories and the 4 operational stack memories, the HP-22 provides 10 addressable memories you can use to store data. All you do is press the [STO] storage key and one of the numerical keys. For example, to store a displayed value in the first addressable memory, press [STO][0] and the value will be automatically stored in that memory. To recall the value, press the [RCL] recall key and the [0] key and the value will again be displayed. For added convenience, register arithmetic can be performed with all 10 memories.

Full decimal display control.

Since most business calculations involve dollars and cents, the HP-22 usually displays numbers rounded off to two decimal places.

If you want to display more or fewer than two decimal places you can easily do so by using the gold key and one numerical key.

You may switch the HP-22 to scientific notation for all calculations, if desired. In scientific notation, 8 digits plus the 2-digit exponent are

displayed. The full decimal display control of the HP-22 gives you valuable flexibility in obtaining the accuracy you need in virtually any calculation.

The remarkable HP-22 Owner's Handbook.

Even if you lack special training in mathematics, statistics or advanced financial planning, the 148-page Owner's Handbook will make it easy for you to take full advantage of the capabilities of the HP-22. The book is a valuable survey course in modern management problem-solving, analysis and planning. It provides formulas and procedures for solving more than 50 different financial, mathematical and statistical functions on the HP-22. Be sure to ask your dealer to let you examine a copy of the HP-22 Owner's Handbook. You may be surprised at how easy to operate the HP-22 really is.

Plus other quality HP features...

The HP-22—like other Hewlett-Packard pocket calculators—features the famous RPN logic system that facilitates the handling of lengthy, complex or repetitive problems.

Light-emitting diode display—

Displays up to 8 significant digits, plus two-digit exponent and appropriate signs. Two selectable display modes: fixed point, with automatic overflow for large numbers into scientific, and scientific with a dynamic range of 10⁹⁹ to 10⁻⁹⁹. Automatic decimal point positioning. Selective round-off; range: 0-9 decimal places in fixed point. "Error" appearing in the display indicates improper operation. All decimal points lighted indicates low battery.

Functions and features.

Financial functions: Number of periods [n] • Periodic interest rate [i] • Periodic payment amount [PMT] • Present value [PV] • Future value [FV] • Yearly to monthly conversion [12x] • Annual to monthly interest rate [12+] • Accumulated interest between two time periods [ACC] • Simple interest [INT] • Remaining loan balance [BAL] • Percent of total [%Σ] • Percentage [%] • Percent difference [Δ%] • Begin/End Switch calculates payments due at beginning or end of period.

Statistical functions: Number of variables and sum of two [Σ+] • Corrects an incorrect Σ+ entry [Σ-] • Mean or arithmetic average [x̄] • Linear regression [L.R.] • Standard deviation [s] • Linear estimate [ŷ].

Mathematical and arithmetical functions: Natural log, base e [ln] • Natural antilog [e^x] • y^x • √x • - • + • × • ÷

Data storage and positioning operations: Exchange contents [x↔y] • Stack roll-down [R↓] • Data recall [RCL] • Data storage [STO].

Specifications:

Physical Specifications:
Calculator Length: 13.02 cm (5 1/8") • Width: 6.83 cm (2 1/4") • Height: 3.02 cm (1 1/8") • Weight: calculator: 170.1 g (6 oz) • recharger: 141.8 g (5 oz) • shipping weight: approx. 680 g (1 1/2 lb.) • Operating temperature range: 0°C to 45°C (32°F to 113°F)



YOUR COST FROM US
\$106²⁵

The HP-22 Outfit includes:

HP-22 Business Management Pocket Calculator • Rechargeable battery pack • Recharger/ac adapter • Soft carrying case • Illustrated Owner's Handbook.

HP-22 Outfit



The Hewlett-Packard HP-80 Financial Pocket Calculator

For calculating most financial problems—even a bond price or yield—in seconds, without referring to tables

The HP-80 Financial lets you solve business math or time-and-money problems quickly and easily.

All the interest equations and tables have been pre-programmed. So has a 200-year calendar, used in solving for bond price and yield, or short-term interest.

It's pre-programmed to handle general business math problems

Percentages

% Δ %

The "%" and " Δ %" keys allow you to easily handle problems concerned with: percentages; net amounts (markups, discounts, chained discounts, dealer discount ratios, anticipation discounts, etc.), and percent difference.

Just press the keys to solve time-and-money problems in seconds

At the top of the HP-80's keyboard are five keys for solving all types of business problems involving compound interest or compound growth. They replace the compound interest, discount, bond and annuity tables commonly in use. Merely enter the known amounts (the data) and press the appropriate keys.

n i PMT PV FV

Number of periods—To enter or find the number of time periods, payment periods, compounding periods, etc.

Interest rate per period—To enter or find the compound interest rate.

Payment per period—To enter or find the payment or deposit amount.

Present value—To enter or find the loan amount, principal amount, current price, beginning value or investment—the "now money."

Future value—To enter or find the final balance—after all the interest and deposits, or payments have been added.

The HP-80's financial keys save you time and effort when calculating:

Compounded Amounts (compound interest)

It takes but a few seconds to solve for: present value and future value amounts; rate of interest; number of periods; interest earned; effective annual interest rate, and nominal (stated) annual interest rate.

Amortized (direct reduction) loans (ordinary annuity)

You can solve for: the number of payments; the number of payments to reach a specified balance; payment amount; annual percentage rate, with or without fees; principal amount; amortization schedules; remaining balance (remaining principal, last payment, balloon payment) and accumulated interest; payment amount for loan with a balloon payment; annual percentage rate with balloon payment coincident with, or one period after, the last payment; price and yield of discounted mortgages (prepaid or fully amortized), and the mortgage factor for Canadian mortgages.

Loans with a constant amount paid toward the principal

With the HP-80 you can prepare a payment schedule showing the interest portion per payment and the remaining balance, when a constant amount is paid toward the principal.

Sinking funds (ordinary annuity)

The HP-80 can calculate: payment amount, interest rate, number of payments and debt retirement amount.

Consumer loans

Just press the keys to calculate the monthly payment amount, or to convert the add-on interest rate to the annual percentage rate of interest. And, using the Rule of 78's, you can use the HP-80 to calculate rebates.

Also, you can convert the annual percentage rate to the add-on rate.

Savings functions (annuity due)

You can calculate the number of deposits, the rate of interest, the deposit amount and the future value.

Lease and rent functions (annuity due)

The HP-80 can be used to convert the add-on interest rate to the annual percentage rate, or vice versa.

You can calculate: the number of payments; rate of interest; payment amount; payment amount with balloon payment or residual value, and present value.

Discounted cash flow analysis

Σ Σ

You can quickly and easily perform a discounted cash flow analysis, and calculate the net present value of even, uneven or deferred payment streams.

The HP-80 can also be used to calculate the discounted or internal rate of return (iteration of above).

Equity investment analysis for income property

You can use the calculator to solve for: equity yield rate; equity investment value and present value; and future value and overall appreciation/depreciation rate.

Bond functions

YTM INTR BOND

The HP-80 has pre-programmed function keys for bond calculations: "Yield-To-Maturity," "INTeRest" and "BOND". You can calculate bond price, yield and after-tax yield, accrued interest (between coupons) and bond amortization. You can also calculate a callable bond price and yield-to-call.

Commercial loans (short term notes)

INTR

The HP-80's "INTeRest" key lets you calculate the accrued interest amount or the discount amount and annual yield for a discounted note (for either a 360- or 365-day year).

Calendar functions

DATE

DAY

This key puts a 200-year calendar (1900 to 2099) at your fingertips. You can find: the number of calendar days between two dates; the day of the week a date falls on; a future date, or a past date, given the number of days from a known date.

Depreciation functions

COMPUTE

SOD

The HP-80 incorporates a unique key labeled "SOD" for calculating sum-of-the-years'-digits depreciation—amount and remaining balance—on a full-year or partial year basis.

You can also calculate the depreciation amount and remaining balance via the straight-line method, or via the declining-balance method (full year or partial year).

Statistical functions

Σ \rightarrow Σ

TL Σ \bar{x}

By using the "Trend Line" key, you can easily calculate: a trend line (time series linear regression) giving you the y-intercept (value at point 0); the number of time periods; the slope, and automatic projections. You can also calculate two variable linear regression.

The HP-80 can also calculate: the mean and the standard deviation, with the ability to change data points after a calculation and recalculate. The " Σ " key provides running totals and computes the sum of the squares and the number of entries.

Memory power

In addition to the four-register stack, the HP-80 has an addressable memory for storing constants or other numbers to be used later on in a calculation.

Plus other quality HP features...

The HP-80 features the famous RPN "computer logic" system (see pages 20, 21).

Light-emitting diode display—Displays up to 10 significant digits, plus two-digit exponent and appropriate signs. Two selectable display modes: fixed point, with automatic overflow for large numbers into scientific, and scientific with a dynamic range of 10^0 to 10^{-9} . Automatic decimal point positioning. Selective round-off; range: 0-6 decimal places in fixed point.

Flashing display indicates improper operation; flashing decimal points indicate low battery.

Functions and features

Keyboard commands:

Financial functions: Number of periods (n) • Interest rate (i) • Payment per period (PMT) • Present value (PV) • Future value (FV) • Simple interest (INTR) • Sum-of-the-years'-digits depreciation (SOD)

Bond functions: Bond prices • Bond yields • 200-year calendar

Statistical functions: Mean, standard deviation (sum-of-the-squares)

• Trend line

Mathematical functions: Percentage • Percent difference • $\sqrt{x} \cdot y$

• Addition, subtraction, multiplication or division in serial, mixed serial, chain or mixed chain calculations

Data storage and positioning operations: Data entry • Stack roll down

• x, y interchange • Data storage • Data recall • Change sign

Memory:

4-register stack • Addressable memory

Specifications

Power: AC: 115 or 230 V $\pm 10\%$, 50 to 60 Hz • Battery: 500 mw nickel-cadmium rechargeable battery pack

Weight: HP-80: 9 ounces (255 g) • Adapter/recharger: 5 ounces (142 g) • Shipping: Approx. 2 lbs (900 g)

Dimensions: Length: 5.8 in (14.7 cm) • Width: 3.2 in (8.1 cm) • Height: 0.7 to 1.3 in (1.8 to 3.3 cm)

Operating temperature range: 32° F

to 122° F (0° C to 50° C)

The HP-80 outfit includes:

HP-80 Financial Pocket Calculator • Rechargeable battery pack • 115/230 V AC adapter/recharger • Soft carrying case • Illustrated Owner's Handbook • Quick Reference Guide • "A Guide to Profitable Real Estate Decisions" Book



YOUR COST
\$249⁹⁵

The Hewlett-Packard HP-55

Here is a scientific pocket calculator with more keyboard power than any other ever made, to solve all types of problems faster, easier and more accurately.

And because it's programmable—capable of retaining and repeating keystroke routines—the HP-55 solves repetitive or iterative problems in far less time than conventional calculators.

Unconventional, too, is the inclusion of a digital timer—to time lab experiments or other procedures with split-second accuracy.

Keystroke programming... so you can create the exact programs you need—on the spot

To solve a problem with an ordinary calculator, a certain sequence of keystrokes is required—and all the keys must be pressed again every time the problem is worked with different data. Not so with the HP-55.

Simply set the HP-55 to PROGRAM and enter the keystrokes needed to solve the problem. (But don't enter the data.) Your program—up to 49 keystrokes in sequence—is retained in the HP-55's program memory.

To solve the problem, switch to RUN and enter the data. Then press the "Run/Stop" key to

run your program. In seconds, the HP-55 gives you your answer. To solve other problems using the same program, just enter new data and press the "Run/Stop" key again.

Because your program does your calculation automatically, there's far less chance for error than if you had to do it manually. And it takes but a fraction of the time.

It's also easy to review, edit or test your program...

BST SST GTO

The program memory consists of 49 steps, numbered 01 through 49. To review the entire memory—one step at a time—press the "Back Step" or "Single Step" key. Or press the "Go To" key plus the number of the step you want. To test your program, a step at a time, switch to RUN and press "SST" repeatedly.

The program memory uses a simple numeric code, based on the position of each key on the keyboard. For example, "41" means "4 rows down, 1st key"—the "ENTER" key. When you single-step through a program, the code numbers are visible on the HP-55 display.

04 41

Step number Keystroke code
Want to change your program... or part of it? Switch to PROGRAM and enter a new sequence of keystrokes to overwrite the previous program or any section of it. Your program remains stored for as long as you leave the HP-55 turned on.

You can even program the HP-55 to do computer-like branching

Like a computer, the HP-55 can actually be programmed to make decisions... because it can do conditional branching.

You can program it to test the relationship between two values, via these tests:

$x \leq y$ $x = y$

Depending on the outcome of the tests, the HP-55 will automatically branch to the specified step of the program... or continue through the program in sequence.

Or, using the "Go To" key, you can program the HP-55 to branch directly to a specified step, and then continue executing the program.

Both conditional and direct branching are useful in solving iterative problems.

86 keyboard commands

The HP-55 offers 86 keyboard functions and operations—more than in any other pocket calculator—and all but a few may be incorporated into your programs.

Extra trigonometric capability

$R \rightleftharpoons P$

Coordinate conversions: Convert polar coordinates to rectangular coordinates, or vice versa. This lets you do vector arithmetic quickly and accurately.

$D \rightleftharpoons R$

Angle conversions: You can convert directly from degrees to radians, or from radians to degrees.

$H \rightleftharpoons H.MS$

Angle (time) conversion: In any of three angular modes, you can convert decimal angles (hours) into angles (times) in degrees (hours)/minutes/seconds... or vice versa.

$H.MS \pm$

Angle (time) arithmetic: You can add or subtract angles (times) in degrees (hours)/minutes/seconds.

Extra statistical capability

$\Sigma -$

$\Sigma +$

Summation: Useful when working with vectors as well as statistics, this key automatically calculates and stores for recall or further use: Σx , Σx^2 , Σy , Σy^2 and Σxy . Data may be deleted via the " $\Sigma -$ " key.

\bar{x} \bar{y}

Mean and standard deviation: The HP-55 simultaneously calculates the means and standard deviations of both the x and y values.

L.R.

\hat{y}

Linear regression: After two or more data points are accumulated with the " $\Sigma +$ " key, you can quickly calculate linear regression with the "L.R." key (via the least squares method). Then, using the " \hat{y} " key, you can calculate other data points on the curve.

Extra metric conversion capability

$in \rightleftharpoons mm$ $ft \rightleftharpoons m$ $gal \rightleftharpoons l$
 $lbm \rightleftharpoons kg$ $lbf \rightleftharpoons N$ $^{\circ}F \rightleftharpoons ^{\circ}C$
 $Btu \rightleftharpoons J$

Not just constants, but true direct two-way conversions between U.S. and metric units are fast and easy—and exceedingly accurate.

20 addressable memory registers!

The more memory registers a calculator has, the less writing down and re-entering of numbers you have to do... and the less chance for error.

That's why the HP-55 has more memory registers than any other pocket calculator—20!

They're all fully addressable, too. This means you can store and retrieve data (e.g., a constant or intermediate solution) push-button fast from the keyboard or automatically in your program. And, with 10 of the registers, you can do register arithmetic (i.e., directly add to, subtract from, divide into, or multiply the contents of a register).

Data manipulation is extremely easy even when working the most complex mathematical problems.

Plus other quality HP features.

In addition to the 20 addressable memory registers, the HP-55 has a four-register stack—which makes possible the famous RPN "computer logic" system and a "Last x" register (see pages 20, 21).

Light-emitting diode display: Displays up to 10 significant digits, plus two-digit exponent and appropriate signs. Two selectable display modes: fixed point, with automatic overflow and underflow into scientific, and scientific with dynamic range of 10^m to 10^{-n} . Automatic decimal point positioning. Selective round-off; range: 0-9 decimal places. Flashing display indicates improper operation; flashing decimal points indicate low battery.

Functions and features

Programming:

Program writing capability • Single step execution or inspection of a program • Program editing capability • $x \leq y$, $x = y$ conditional branching • Direct branching

Keyboard commands:

Trigonometric functions: 3 angular modes • $\sin x$ • $\arcsin x$ • $\cos x$ • $\arccos x$ • $\tan x$ • $\arctan x$ • Rectangular coordinates \leftrightarrow Polar coordinates • Decimal angle \leftrightarrow Angle in degrees/minutes/seconds • Decimal time \leftrightarrow Time in hours/minutes/seconds • Angle in degrees \leftrightarrow Angle in radians • Vector arithmetic • Angle arithmetic

Logarithmic functions: $\log x$ • $\ln x$ • e^x • 10^x

Statistical functions: Mean and standard deviation (one or two variable) • Linear regression (two variable) • Linear estimate • Factorial • Positive and negative summation giving Σx , Σx^2 , Σy , Σy^2 , Σxy

Metric conversion functions: $Btu \leftrightarrow J$ • $lbm \leftrightarrow kg$ • $lbf \leftrightarrow N$ • $in \leftrightarrow mm$ • $ft \leftrightarrow m$ • $gal \leftrightarrow l$ • $^{\circ}F \leftrightarrow ^{\circ}C$

Other functions: y^x • \sqrt{x} • $1/x$ • π • x^2 • $\%$ • Register arithmetic in 10 addressable memories • Addition, subtraction, multiplication or division in serial, mixed serial, chain or mixed chain calculations

Data Storage and positioning operations: Data entry • Stack roll down • x , y interchange • Data storage • Data recall • Change sign • Exponent entry

Memory:

4-register stack • "Last x" register • 20 addressable memories • Program memory for storage of up to 49 keystrokes.

Timing:

Digital timer • 0-100 hour range • $\pm 0.1\%$ accuracy • Displays hours/minutes/seconds/hundredths • Times for up to 10 events may be stored in addressable memories

Featuring keystroke programming... 86 keyboard commands... 20 addressable memory registers... and a built-in timer

Specifications

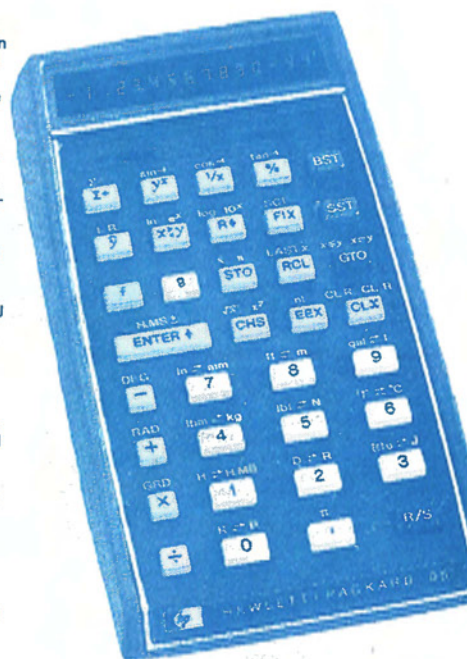
Power: AC: 115 or 230 V, $\pm 10\%$, 50-60 Hz. Battery: 500 mw nickel-cadmium rechargeable battery pack
Weight: HP-55: 9 ounces (255 g) with battery pack • Recharger: 5 ounces (142 g) • Shipping weight: approx. 4.5 lbs. (2.0 kg)

Dimensions: Length: 5.8 inches (14.7 cm) • Width: 3.2 inches (8.1 cm) • Height: 0.7 to 1.3 inches (1.8 to 3.3 cm)

Operating temperature range: 32°F to 122°F (0°C to 50°C)

The HP-55 outfit includes:
HP-55 Programmable Scientific Pocket Calculator • Rechargeable battery pack • 115/230 V AC adapter/recharger • Soft carrying case •

Owner's Handbook • Quick Reference Guide • Pad of programming worksheets



\$284⁷⁵

YOUR COST FROM US

The Hewlett-Packard HP-65 fully programmable calculator

The HP-65 is also an advanced scientific pocket calculator, with all these functions and features built in

\$ **636⁰⁰**
YOUR COST

"Shift" keys multiply the functions of many keys



To save space, many of the built-in functions are shown on the key-board as alternate functions, and are indicated either above a key (in gold) or on the front side of a key (in blue). To activate them, first press the appropriate prefix "shift" key. Note that f-1 performs the inverse of the labeled gold functions.

Advanced trigonometric capability



Coordinate conversions—Convert polar coordinates to rectangular coordinates, or vice versa. This lets you do vector arithmetic quickly and accurately.



Angle modes—You can calculate trig functions in any of three angular modes—degrees, radians or grads. You can also convert from an angle in one mode to an angle in another mode with a few keystrokes.

→ D.MS

Angle (time) conversions—In any of three angular modes, you can convert decimal angles (times) into angles (times) in degrees (hours)/minutes/seconds... or vice versa.

D.MS±

Angle (time) arithmetic—You can add or subtract angles (times) in degrees (hours)/minutes/seconds.

Other specialized functions



Truncation—To truncate the displayed number to its integer value, press "f", then this key. To truncate it to a decimal fraction, first press "f-1". In this way you can save memory storage space by retaining two numbers within a single memory. This is often used in programs.

→ OCT

Octal conversion—Press the "f" key and this key to convert a decimal integer to octal. Press the "f-1" key first to convert an octal integer to decimal.

Advanced memory power for faster, easier problem-solving

In addition to the 100-step program memory, the HP-65 incorporates nine addressable memories.

These nine addressable memories make data manipulation easy. You can store data in any memory... retrieve data from any memory... and even do register arithmetic.

The addressable memories are not only useful when operating the HP-65 as a scientific calculator—to accumulate sums, or to store constants or intermediate results—but are equally useful when working with a program. Data may be stored in any memory, then retrieved—either manually or automatically, as part of a program.

Plus other quality HP features...

The HP-65 also includes a four memory stack, which makes possible the famous RPN logic system, and a "Last X" memory.

Light-emitting diode display—Displays up to 10 significant digits, plus two-digit exponent and appropriate signs. Two selectable display modes: fixed point, with automatic overflow into scientific notation, and scientific with a dynamic range of 1099 to 10-99. Automatic decimal point positioning. Selective round-off; range: 0-9 decimal places.

Flashing display indicates improper operation; flashing decimal points indicate low battery.

Functions and features

Programming:

Magnetic card reader/writer • Program writing capability • Unique single-step, insert/delete editing features • $x \neq y$, $x \leq y$, $x = y$, $x > y$ relational tests for conditional branching • Direct branching • Built-in decrementer • Two flags for skip or no-skip programming or branching to another part of program • Five User Definable Keys • Subroutines (1 level) • 15 labels

Keyboard commands:

Trigonometric functions: 3 angular modes • $\sin x$ • $\arcsin x$ • $\cos x$ • $\arccos x$ • $\tan x$ • $\arctan x$ • Rectangular coordinates ↔ Polar coordinates • Decimal angle ↔ Angle in degrees/minutes/seconds • Decimal time ↔ Time in hours/minutes/seconds • Decimal angle ↔ Angle in degrees, radians or grads • Degrees (hours)/minutes/seconds arithmetic

Logarithmic functions: $\log x$ • $\ln x$ • e^x • 10^x

Other functions: y^x • \sqrt{x} • $1/x$ • π • x^2 • Integer/fraction truncation •



Register arithmetic • Addition, subtraction, multiplication or division in serial, mixed serial, chain or mixed chain calculations • Decimal ↔ Octal Data storage and positioning operations: Data entry • Stack roll down and roll-up • x , y interchange • Data storage • Data recall • Change sign • Exponent entry

Memory:

Four-memory stack • "Last X" memory • Nine addressable memories • Program memory for storage of up to 100 keystrokes (a program).

Specifications:

AC: 115 or 230 V, $\pm 10\%$, 50-60 Hz, 5 watts.

Battery: 3.75 Vdc nickel-cadmium rechargeable battery pack.

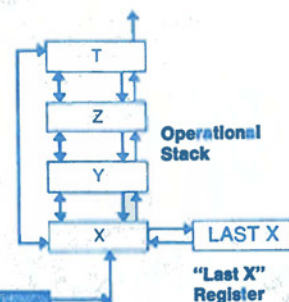
Weight: HP-65: 342 g (11 oz) with battery pack • Recharger: 142 g (5 oz) • Shipping weight: approx. 1.4 kg (3 lb).

Dimensions: Length: 15.24 cm (6 in) • Width: 6.1 cm (3.2 in) • Height: 1.8 to 3.4 cm (0.7 to 1.4 in). Operating temperature range: 0° C to 40° C (32° F to 104° F).

The HP-65 outfit includes:

HP-65 Fully Programmable Pocket Calculator • Rechargeable battery pack • 115 or 230 Vac adapter/recharger • Soft carrying case • Illustrated Owner's Handbook • Quick Reference Guide • Pad of programming worksheets • Standard Pac of pre-recorded program cards (see page 17) • "Key Note" newsletter and Users' Library Catalog subscriptions (see page 17).

Label the program card and insert it in the slot above the User Definable Keys to identify them.



Exclusive 4-register operational stack holds intermediate solutions...

This four-register operational stack retains as many as four intermediate solutions in sequence, and automatically positions them for use on a last in, first out basis. The stack design also permits X and Y register exchange and roll-up or roll-down of any entry to the display for review or other operation.



The Hewlett Packard

The HP-97 fully-programmable

These are the most powerful personal calculators Hewlett-Packard has ever made. The HP-97 combines exceptional programming power—plus a battery-operated printer—all in one self-contained unit. The HP-97 provides the identical power of the HP-67 in the classic pocket size.

Exceptional power easily handles your lengthy, repetitive problems.

The HP-97/67 let you write programs of up to 224 steps. Every function (one, two or three keystrokes) is merged to take only one step of program memory. And there are 26 data storage registers to provide the memory you need for your problems. And you can record or load the contents of program memory or the data storage registers on a magnetic card. All this, plus: three levels of subroutines, ten user-definable keys, ten conditional/decision functions, four flags, direct address-

ing to labels, relative addressing, indirect addressing.

You don't have to wait to get on a computer to handle those extremely difficult calculations you face daily.

The preprogrammed power of the HP-97/67 is equally versatile. Choose from trigonometric functions, exponentials, logs, statistical functions, angular conversions.

So easy to use you'll write programs the first day.

Keystroke programming makes programming the HP-97/67 as simple as pressing the keys needed to calculate answers manually. Merged operations further simplify the task (and expand memory power) by letting you see the complete operation right in the display.

A "smart" card reader frees your mind by automatically recording the

display mode setting, angular mode setting, and the status of the four flags when you record your program.

Because many programs require editing of some kind, we added useful features enabling you to easily review programs forward or backward, to easily jump to any step in the program, and to easily insert steps or delete them.

An unparalleled program of owner support.

The HP-97 and HP-67 come with highly-detailed Owner's Handbooks and with a Standard Application Pac of 15 prerecorded programs in various disciplines. Owners are also entitled to a one-year subscription to the User's Library containing many other programs. A periodic Newsletter keeps owners abreast of current information.

New "Smart" magnetic card reader makes every problem easier.

The magnetic card reader in both the HP-97 and the HP-67 does much more than record programs from calculator to card or load programs from card to calculator.

You can load the entire program memory, or selected portions, either manually or under program control. You don't have to stop your program to insert additional cards that may be required for extra-long programs. Under program control, the card reader can read subsequent cards automatically.



026	*LBLE	21	11
027	F0?	16	23 00
028	SPC	16	11
029	RCLE	36	15
030	1		01
031	+		-55
032	F0?	16	23 00
033	PRTY		-14
034	X2?		-41
035	F2?	16	23 00
036	PPTY		-14

Printed tape simplifies checking programs or calculations.

Provides battery-operation and thermal printing—in one self-contained unit.



HP-97 Specifications:

- Calculator width: 228.6 mm (9")
- Calculator depth: 203.2 mm (8")
- Calculator height: 63.5 mm (2.5")
- Calculator weight: 1.13 kg (2.5 lb)
- Recharger weight: 268 g (9.5 oz)
- Shipping weight: 3.16 kg (7 lb)
- Operating temperature range: 15°C to 40°C (59°F to 104°F)
- Charging temperature range: 10°C to 40°C (50°F to 104°F)
- Storage temperature range: -40°C to 55°C (-40°F to 131°F)

- Paper operating temperature range: 10°C to 40°C (50°F to 104°F)
- Paper storage temperature range: -40°C to 30°C (-40°F to 86°F)
- AC Power Requirement: 90-127V or 200-254V, 50 to 60 Hz
- Battery Power Requirement: 5.0 Vdc nickel cadmium rechargeable battery pack

RETAIL \$750.*

YOUR COST **\$637⁵⁰**

The Hewlett-Packard HP-91 Scientific Printing calculator.

The HP-91 Scientific Printing Calculator Features

Printer Features:

- Print Mode Switch** —Selects printing modes. You can print nothing, digit entries and functions, or digit entries, functions and results.
- Print X** —Prints the displayed number.
- List STACK** —Prints and labels the contents of the stack registers.
- List Σ** —Prints and labels the contents of the summation registers.
- List REG** —Prints and labels the contents of the addressable registers.
- Paper Advance** —Advances the paper. At the same time clears errors and halts list operations.

Mathematical Functions:

- Angular Mode Switch** —Selects degrees, radians or grads mode
- sin, cos, tan** —Trigonometric functions
- sin⁻¹, cos⁻¹, tan⁻¹** —and their inverses.
- ln, e^x** —Natural log and antilog
- log, 10^x** —Common log and antilog
- y^x** —Exponential function
- R, →P** —Rectangular/polar coordinate conversion
- H.MS+, H.MS-** —Time (angle) addition and subtraction in hours, minutes and seconds.
- H.MS, H.MS→** —Time (angle) conversion between hours, minutes and seconds and hours.
- 1/x, \sqrt{x} , π , x²** —Convenient math functions
- +, -, \times , \div** —Arithmetic functions
- %** —Percent
- $\Delta\%$** —Percent difference
- % Σ** —Percent of total

Statistical Functions:

- $\Sigma+$** —Accumulates x, y, x², y², xy, n
- $\Sigma-$** —Deletes unwanted data
- \bar{x}** —Mean—two variables
- s** —Standard deviation—two variables
- L.R.** —Linear regression coefficients
- \hat{y}** —Linear estimate
- n!** —Factorial

Data Manipulation, Operations and Storage Functions for 16 registers:

- ENTER↑** —Separates numerical entries
- x↔y** —Exchanges contents of x and y stack registers
- R↓** —Rolls down contents of stack registers
- R↑** —Rolls up contents of stack registers
- CHS** —Changes the sign of a number
- EEX** —Enters exponent for numbers entered in scientific notation.
- LAST x** —Recalls last entry after an operation
- —Gold shift key; selects functions printed in gold on keyboard
- STO** —Stores displayed value into addressable register. Also used with arithmetic functions in storage register arithmetic.
- RCL** —Recalls a number to the display from an addressable register

Display Control and Clearing Options:

- FIX** —Sets fixed decimal notation display
- SCI** —Sets scientific notation display
- ENG** —Sets engineering notation display
- CLx** —Clears display
- CLEAR** —Clears stack, addressable registers, and Last x register
- CL REG** —Clears addressable registers R₀-R₉
- CL Σ** —Clears summation registers R₀-R₅

Physical Specifications:

- Calculator width: 228.6 mm (9")
- Calculator depth: 203.2 mm (8")
- Calculator height: 63.5 mm (2.5")
- Calculator weight: 1.13 kg (2.5 lb)
- Recharger weight: 268 g (9.5 oz)
- Shipping weight: 3.16 kg (7 lb)
- Operating temperature range: 0°C to 50°C (32°F to 122°F)
- Charging temperature range: 10°C to 40°C (50°F to 104°F)
- Storage temperature range: -40°C to 55°C (-40°F to 131°F)
- Paper temperature range (operating & storage): 10°C to 45°C (50°F to 113°F)

Power Requirements

AC: 115 or 230V, $\pm 10\%$, 50 to 60 Hz
 Battery: 5.0 Vdc nickel cadmium rechargeable battery pack

With switch set to ALL, the printer will show all entered data, functions, intermediate and final answers. With the switch set to NORMAL, the printer will record entered data and functions only. In this mode, intermediate and final answers may be printed by pressing the Print X key. With switch set to MANUAL, the printer will operate only when you press the Print X key or a list function. This mode is useful in conserving battery power or when the full printing capability of the HP-91 is not required.



The HP-91 Scientific Printing Calculator comes complete with:

- Battery pack that under normal use provides 3 to 7 hours of continuous operation and fully charges in under 6 hours.
- Recharger/AC adapter that lets you operate the calculator on AC while the battery pack is recharging.
- Soft carrying case with handle.

Quiet thermal printer provides a complete record of your calculations.

You may operate on battery or AC.

Easy for anyone to use as a fine desk-top office calculator.

Extra large display is easy to read in office or field.

RPN—the professional logic system—gives added flexibility, speed and confidence.

All the most-needed scientific functions—preprogrammed for speed and accuracy.

You can display and print in decimal, scientific or engineering notation.

220-page Owner's Handbook includes detailed applications.

Compact design and light weight for easy portability.

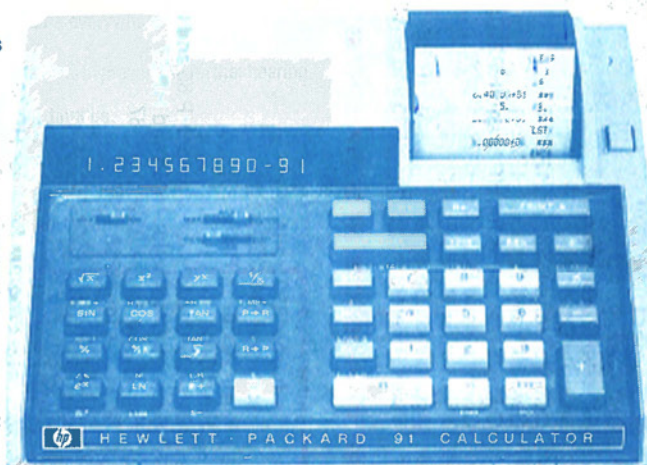
You select from three printing modes.

\$425⁰⁰

Suggested Retail

\$500⁰⁰

YOUR COST FROM US



The Hewlett Packard

HEWLETT — PACKARD ACCESSORIES

Woodstock Line of Products: HP 21, HP 22, HP 25, HP25C & HP 27

Model	Specifications	Retail	Your Cost
82019A	Battery Pack	7.00	6.30
82041A	Recharger/110 Volt only	13.00	11.70
82026A	Recharger 110V/220V	15.00	12.75
82027A	Soft Case	6.00	5.40
82028A	Reserve Power Pack	20.00	17.00
82029A	Security Cradle	30.00	25.50
00021-90001	Owners Hand Book for HP21	2.00	2.00
00022-90001	Owners Hand Book for HP22	5.00	4.50
00025-90001	Owners Handbook for HP25 and HP25C	3.00	3.00
00027-90001	Owners Hand Book for HP27	5.00	4.50
00021-90016	Application Book for HP21	10.00	8.50
00025-90011	Application Book for HP 25 and HP 25C	10.00	8.50
00025-90021	Quick Reference Book for HP25 and HP25C	1.00	1.00

CLASSIC LINE OF PRODUCTS: HP 35, HP 45, HP 55, HP 65, HP 67, HP 70 & HP 80

82001A	Battery Pack	10.00	8.50
82002A	Recharger 110 Volts	20.00	17.00
82002A	Recharger 110/220 Volts	22.00	19.00
82004A	Reserve Power Pack	20.00	17.00
82006A	Field Case	30.00	25.50
82007A	Security Cradle (except for HP 65 and 67)	30.00	25.50
82015A	Security Cradle for HP65 and HP 67	30.00	25.50
82016A	Field Case for HP 65 and HP 67	35.00	29.75
82017A	Soft Case for HP65	10.00	8.50
82021A	Soft Case	6.00	5.40
82053A	Soft Case for HP67	7.00	6.30
00055-66001	Math Program Book for HP55	10.00	8.50
00055-66002	Stat Program Book for HP 55	10.00	8.50
00080-66006	Real Estate Book for HP80	10.00	8.50
00055-90001	Owners Manual for HP55	2.50	2.50
00065-90200	Owners Manual for HP65	2.50	2.50
00067-90011	Owners Manual for HP67	10.00	8.50
00080-90001	Owners Manual for HP 80	2.00	2.00
00055-90002	Quick Reference Guide for HP55	1.00	1.00
00065-90203	Quick Reference Guide for HP65	1.00	1.00
00067-90001	Quick Reference Guide for HP67	3.00	3.00
00080-90003	Quick Reference Guide for HP80	1.00	1.00

HP - 65 SOFTWARE

Model	Specifications	Retail	YOUR COST
00065-67001	Math Pac I	45.00	38.25
00065-67002	Math Pac II	45.00	38.25
00065-67003	Survey Pac I	45.00	38.25
00065-67004	Medical Pac I	45.00	38.25
00065-67005	Stat Pac I	45.00	38.25
00065-67053	Stat Pac II	45.00	38.25
00065-67007	Electrical Engineering Pac I	45.00	38.25
00065-67008	Standard Pac	45.00	38.25
00065-67044	Financial Pac I	45.00	38.25
00065-67050	Chemical Engineering Pac I	45.00	38.25
00065-67052	Machine Design Pac I	45.00	38.25
00065-67056	Electrical Engineering Pac II	45.00	38.25
00065-67042	Aviation Pac I	45.00	38.25
00065-67045	Navigation Pac I	45.00	38.25
00065-67051	Stress Analysis Pac I	45.00	38.25
00065-67010	Blank Pac 40	18.00	15.30
00065-67054	3 - 40 Blank Cards (120)	40.00	34.00
9320-0613	Pocket Holders	7.50	6.75
9320-0616	Programming Pad	1.65	1.65

PORTABLE PRINTING CALCULATORS

Hp-91 and HP 97

82033A	Battery pac	18.00	15.30
82035A	Soft Case	10.00	8.50
82037A	Reserve Power Pac	35.00	29.75
82040A	Recharger 110 Volts	10.00	8.50
82040A	Recharger 110/220 Volts		
82044A	Security Cable and Lock	10.00	8.50
82045A	Thermal Paper (6 rolls)	6.00	5.40
00091-90001	Owners Handbook for HP91	10.00	8.50
00097-90001	Owners Handbook for HP97	10.00	8.50

SOFTWARE FOR HP67 and HP97 Use the same software with exception of standard pac.

00097-13101	Standard Pac for HP97	35.00	29.75
00097-13111	Stat Pac	35.00	29.75
00097-13121	Math Pac I	35.00	29.75
0097-13144	Business Decisions Pac	35.00	29.75
00097-13165	Clinical Lab and Medical Pac	35.00	29.75
00097-13131	EE Pac I	35.00	29.95
00097-13155	ME Pac I	35.00	29.95
00097-13175	Survey Pac I	35.00	29.95
00097-13141	40 Blank Cards	20.00	17.00
00097-13142	3 Program Card Holder	10.00	8.50
00097-13143	3 - 40 Blank Cards (120)	45.00	38.75
00097-13154	Programming Pad	4.00	3.60
00067-13107	Standard Pac for HP67	35.00	29.75



The TI-1270

An extra function economy calculator specifically designed for secondary school students. 7th grade and up. Basic four functions plus reciprocals, squares, square root, π (Pi), and change-sign.

Has a memory to store displayed number and recall for later use without affecting the calculations in progress.

The algebraic entry system allows problems to be entered in the same order they are stated.

Bright red 8-digit LED display shows all numbers, decimal point, negative sign, and overflow and error conditions.

Operates on disposable batteries. (Not included with calculator). Convenient AC adapter available as an optional accessory for operation from standard house current.

YOUR COST
\$13.95

TI-30

An economical, powerful slide-rule calculator specifically designed for high school students. Features 48 functions plus TI's unique Algebraic Operating System (AOS) with 15 sets of parentheses.

Combines high versatility with memory — 4 basic functions, constant, roots, powers, reciprocals, scientific notation, common and natural logarithms, trigonometry, degree/radian mode, memory for store and recall of numbers, sum to memory, memory/display exchange, automatic power down, electronic on/off switch.

Straightforward simple operation featuring new Algebraic Operating System (AOS) allows sequences to be entered in the same order that they are algebraically stated, provides step function improvement in ease of use over alternative systems.

TI-30 operates from a 9 volt disposable battery (not included) — accessory kit (optional) converts TI-30 to a fully rechargeable calculator.

YOUR COST
\$21.96

AC Adapter \$5.95

Texas Instruments
portable electronic
slide-rule calculator
TI-30

MODEL	SPECIFICATIONS	RETAIL	YOUR COST
SR 40	New Successor to the SR50A - 15 Sets Parentheses Rechargeable	39.95	\$33.95
SR 51-II	New Successor to the SR 51A with Statistical Functions Inc. Charger	79.95	64.95
SR52	224 Step programmable, rechargeable including charger (strip prog)	295.95	229.50
SR56	Keyboard programmable, scientific, rechargeable including charger	124.95	99.96
PC100	Printer, compatible with models SR52 and SR56, can be hooked up as to show all the results on print, great unit.	295.00	229.50
TI 620	PRINTER, full memory, buffered keyboard, item counter, percent constants, paper advance, prints 12 digits, uses regular paper tape, fast, two color printing for negative answers, great unit, add mode.	249.50	149.50
TI 5050M	AC-DC printer with Full MEMORY, including batteries and charger hnd held, constant, percent key, dual memory capacity.	129.95	99.95
TI 2550-2	Hand held full Memory, large digits, decimal system, square root	34.95	28.95
TI5100	Desk top, 10 large digit capacity, full MEMORY, constant, percent AC operation only, detachable plug, Item counter, four key memory	69.95	59.95
TI 1250	Hand held, four functions with memory, percent	12.95	11.50
TI 1200	Hand held four functions plus percent	9.95	8.95
TI 1270	Hand held, memory, square root, Pi, change sign, squares	14.95	13.50
TI 5040	PRINTER with DISPLAY combination, ten digits capacity (\$99,999,999.99) large bright flourescent read out, commapunctuation, Quiet electronic printer, four function MEMORY, DUAL memory capability with the independent "Add Register". Two-key rollover and 8 level of buffering for fast operation. Full floating or add-mode decimal selection, non add print.	149.50	124.95
TI 1650	Slim styling plus Memory and large display, percent, change sign key	29.95	25.95
TI 1600	Slim line, four functions plus change sign, percent, constant for Ladies or Men	24.95	21.96
TI 30	Hand held slide rule, scientific, 48 functions, 15 sets of parentheses	24.95	21.96
TI Business	ANALYST, rechargeable, hand held, for business, preprogrammed financial functions, allows to solve as compound interest, loans, mortgages, investment yields, etc. Five keys are used to find interest rate, payment, number of periods, future value, present value. Can solve problems, selling price, gross profit margin, internal linear regression, reciprocals, squares, roots, powers, nat logs, ex, scientific notations, 15 sets of parenthesis.		
Little Professor	Designed to aid 5 through 9 year olds in exploring basic mathematics. Over 16000 preprogrammed problems in all. The child will select problems geared to his individual level of skill, battery operated.	19.95	16.95

AC Adapters are available at \$5.95 each for the following models: TI 1200. . . TI 1250. . . TI 1270. . . TI 30

Rechargeable kits for Model TI 30 (NI - Cad Batteries and Charger) **Your Cost \$9.95**

Paper rolls (3 rolls per pack) for models TI 5050M. . . TI 5050. . . **Your Cost \$2.95 per pack of 3 rolls**

International charger with 110 volt 220 volt for models SR50A - SR51A - SR56 - SR52 **Your Cost \$7.95**

All Texas Instruments calculators are guaranteed by Texas Instruments Inc.

Texas Instruments

The SR-40 provides all the powerful capability needed to learn and grow in mathematics. A problem solving tool for use in secondary schools, colleges or careers.

SR 40

Successor to the famous SR50A Economical - Hi Capability - 48 functions. Rechargeable - includes charger and ni-cad batteries. Four function percent, 15 sets of parentheses, constant, roots, powers, reciprocal, scientific notation, common and natural log, trigonometric functions, degree/radian/grad mode and Pi. Memory recall, sum to memory and exchange, Algebraic logic. Minus sign, decimal point, error indication, input errors, accuracy and rounding.



YOUR COST FROM US
\$33⁹⁵

SUGGESTED RETAIL **\$39⁹⁵**

advanced professional electronic calculator SR-51-II

Successor to the famous SR51A Rechargeable including charger and ni-cad batteries. 3 Separate memories. Direct keyboard conversions: Inches and millimeters - Gallons (US) and liters - Pounds (av) and kilograms - Fahrenheit and Celsius - Degrees, radians and grads - Polar and rectangular coordinates. Degrees, minutes, seconds and decimal degrees. Linear regression for statistical analysis - Trend line analysis - Mean, Standard Deviation, Variance and Correlation. Algebraic logic - Arithmetic functions - Trig function X - Hyperbolic functions and inverses. Common and natural log. Factorial - reciprocal, percent, square and square root, accuracy to 12 digits.



SUGGESTED
RETAIL
\$79.95

YOUR COST
\$64⁹⁵

portable electronic
printing calculator
with memory
TI-5050M



YOUR COST
\$99⁹⁵

SUGGESTED
RETAIL
\$149.95

The TI-5050M

A small portable printing calculator with "big machine" features. Four memory operations are activated by one key for adding to, subtracting from, recalling, or clearing the memory without affecting calculations in progress.

Independent add register simplifies extension and invoicing: multiplication and division can be accomplished without affecting add/subtract entries. Combined with memory, add register provides equivalent "dual memory" capability.

Non-add key prints reference numbers. Touch operation is enhanced by long travel keys with high level buffering that allow you to make entries while calculator is still printing; two-key roll-over lets you press a second key before previously pressed key is released. Full floating or add-mode decimal at the touch of a key. Percent key for add-ons or discounts. Automatic constant for repetitive multiplication or division.

Operates on rechargeable batteries - battery charger and carrying case are included.

The TI-620

Combining 12-digit calculating capacity with a convenient memory system and many other features, the TI-620 offers powerful office performance and provides accurate printed records of business computations. Four memory keys provide capability for accumulating and recalling numbers in the memory; or, the convenient "Sum-to-Memory" switch allows results of addition, subtraction, multiplication, or division calculations to be accumulated in memory automatically if desired. $\frac{\square}{\square}$ key calculates percentages and allows for direct add-on or discount operations. The TI-620 features high-level buffering and two-key roll-over to speed data entry, floating or preset (0, 1, 2, 4, 6) decimal selection, constant operation, and an "Add Mode" selection to eliminate the need for touching the \square key in dollars-and-cents figuring. Operates on AC, using standard printing calculator paper.

YOUR COST

\$149⁵⁰

SUGGESTED
RETAIL
\$249.95



18 Texas Instruments



**SUGGESTED
RETAIL
\$295.00**

YOUR COST

\$229⁵⁰

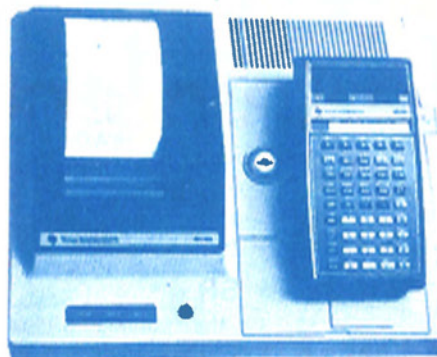
The SR-52

A powerful handheld card programmable calculator. Solves complex repetitive problems or works through lengthy problems in seconds.

Algebraic operating system (AOS) lets you enter problems left-to-right just as they're written. Programming is simple and straight forward. The SR-52 combines a 3-level hierarchy with 9-levels of parentheses so you can enter problems with up to 10 pending operations. This, plus 224 program storage locations, means you don't have to preserve a problem or search for the most efficient execution order. It's done automatically for you.

Record calculations on a magnetic card for years of use. Or run prerecorded programs from the included Basic Library.

The SR-52 operates in three modes: Learn. Run. And calculate. In the learn mode you teach the SR-52 how to solve your problem your way. Ten user-defined keys. Eight preprogrammed "if" statements. Decrement and skip on zero. 5-user defined flags. 2 levels of subroutines. 72 labels, and 2 modes of indirect addressing. Plus,



YOUR COST

\$229⁵⁰

The PC-100

A high-styled printer control to use with an SR-52 and other TI programmables that may be available in the future. Remove the SR-52's battery pack. Press the SR-52 down on the PC-100's connectors. The PC-100 prints whatever you see in the display register by pressing **2nd** **PRN** on the SR-52.

2nd **PRN** (on the SR-52) instructs the PC-100 to print your program code in its entirety. Yet you can halt it whenever you wish. Or, begin printing from any point in the program as indicated by the SR-52's internal counter. This conveniently lets you verify that instructions are keyed in correctly. Match them against the SR-52's Coding Form. Get a quick check on hastily constructed programs or programs not carefully documented. Verify that program results are based on a correctly formulated problem.

With a PC-100 you can print instructions in your program and get one or more results without halting the program. A paper-spacing feature enables you to separate whole sets of results directly from the SR-52 keyboard or through program control.

**SUGGESTED
RETAIL
\$295.00**

TEXAS INSTRUMENTS INC SOFTWARE LIBRARIES FOR THE SR 52 AND ACCESSORIES

STATISTICAL LIBRARY

1. Basic Statistics for 1 or 2 variables
2. Permutations and Combinations
3. Means and Moments
4. Random Number Generator
5. One Way Analysis of Variance
6. t Statistic Evaluation (Paired Observations)
7. t Statistic Evaluation (Two Sample Test)
8. Linear Regression
9. Power Curve Fit
10. Exponential Curve Fit
11. Logarithmic Curve Fit
12. Multiple Linear Regression
13. Quadratic Polynomial Regression
14. Histogram Construction
15. Normal Distribution
16. Chi Square Distribution
17. t Distribution
18. F Distribution
19. Bivariate Normal Distribution
20. Logarithmic Normal Distribution
21. Weibull Distribution
22. Poisson Distribution
23. Binomial Distribution
24. Negative Binomial Distribution
25. Geometric Distribution
26. Hypergeometric Distribution

ELECTRICAL ENGINEERING LIBRARY

1. Active High Pass Filter Design
2. Active Low Pass Filter Design
3. Active Bandpass Filter Design
4. Passive bandpass Filter Design
5. Chebyshev Filter Design
6. Butterworth Filter Design
7. Series Resonant Circuit
8. Parallel Resonant Circuit
9. T and TT Attenuators
10. T to TT Transformation

ELECTRICAL ENGINEERING Cont.

11. TT to T Transformation
12. Ladder Network Analysis
13. Transmission Line Impedance
14. Transmission Line Impedance Transformation
15. S and Y Parameter Transformation
16. Phase Locked Loops
17. Low Frequency Transistor Amplifier Design
18. Discrete Fourier Series
19. Power Transformer Design
20. Coil Properties
21. Controlled Rectifier Circuits
22. Power Supply Rectifier Circuits

MATHEMATICS LIBRARY

1. Hyperbolic Functions
2. Solution of Quadratic Equation
3. Solution of Cubic Equation
4. Zeros of Functions
5. Simultaneous Equations in 2 or 3 Unknowns
6. Lagrange Interpolation
7. Gaussian Quadrature
8. Trapezoidal Integration Given f(x)
9. Trapezoidal Integration Given Xn, f(Xn)
10. Simpson's Approximation
11. First Order Differential Equation
12. Matrix Inversion & Determinant (2 x 2)
13. Matrix Inversion & Determinant (2 x 3)
14. Matrix Arithmetic 1
15. Matrix Arithmetic 2
16. General Matrix Product
17. Vector Operations
18. Partial Sums & Products
19. Base Conversions
20. Factors of an Integer
21. Greatest Common Divisor and Least Common Multiple
22. Arithmetic and Harmonic Progressions
23. Geometric Progression
24. Triangle Solution 1
25. Triangle Solution 2
26. Curve Solution
27. Polynomial Evaluation
28. Complex Arithmetic
29. Complex Functions
30. Ten Conversions (I)
31. Ten Conversions (II)

FINANCIAL LIBRARY

1. Amortized Loan Schedule
2. Ordinary Annuity
3. Compound Interest
4. Trend Line
5. Sinking Fund
6. Accrued Interest
7. Total-Average-Percent Contributions
8. Bond Yield
9. Bond Present Value
10. Annuity Calculations with Balloon Payment
11. Annuity Due Calculations with FV
12. Annuity Due Calculations with PV
13. Annuity Due with PV and Balloon Payment
14. Rate Conversion
15. Add-On Rate Installment Loans
16. Interest Rebate - Rule of 78's
17. Depreciation
18. Crossover Point Between Straight Line and Declining Balance Depreciation
19. Days Between Dates

YOUR COST

\$26.95

FOR EACH LIBRARY

BASIC LIBRARY

96 page programming manual. Plus 18 programming cards: solution to Quadratic Equation, Hyperbolic Functions, Factors of an Integer, Complex Arithmetic, Checkbook Balancing, Compound Interest, Ordinary Annuity (2), Trend Line, Analysis, Permutations and Combinations, Means and Moments (2), Random Number Generator, Active High Pass Filter, Active Low Pass Filter, Dead Reckoning, Game, Diagnostic (3), Conversions (2), 40 Blank Magnetic Cards + card case and tabs... Coding Forms
Calculator Carrying Case, cushioned vinyl SR-52 Case with pockets for operating guide and programming cards.
Owners Manual. 208 page comprehensive guide to detailed information, explanations and examples

TEXAS INSTRUMENTS ACCESSORIES FOR THE SR 52

CODE NUMBER	SPECIFICATIONS-DESCRIPTION	RETAIL PRICES	YOUR COST FROM US
1013803	40 Blank Magnetic Cards plus Card Case & Tabs	15.95	14.35
120479	50 Coding Forms (one package)	1.17	1.17
1013804	Carrying Case	7.95	7.15
1013806	Owners Manual	4.95	4.45
1220800	Statistical Library	29.95	26.95
1220802	Mathematics Library	29.95	26.95
1220801	Electrical Engineering Library	29.95	26.95
1220806	Financial Library	29.95	26.95
1013802	Basic Library	29.95	26.95

Texas Instruments electronic printing calculator with display and memory TI-5040



YOUR COST
\$124⁹⁵

The TI-5040

A quality electronic calculator with an easy-to-read display and printed tape. Large, bright vacuum fluorescent readout displays up to ten digits with comma punctuation. Quiet, electronic printer provides record of calculations with audit symbols. Fully selective printing from single numbers to complete calculations.

A four function memory allows you to add to, subtract from, recall or clear the memory without affecting calculations in progress.

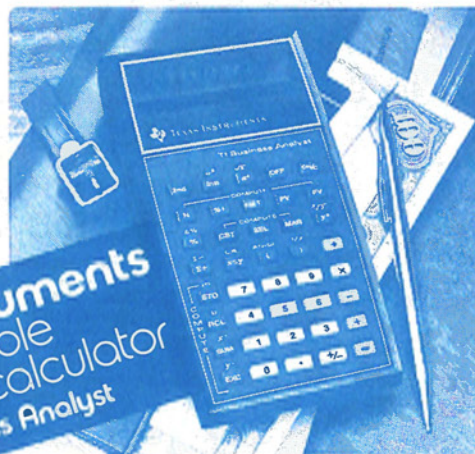
With the independent add register, you can multiply or divide without affecting add/subtract entries. Combined with the memory, the TI-5040's independent add register provides powerful equivalent "dual memory" capability. Simplifies extension, invoicing, cross-footing.

Two-key rollover and 8 levels of buffering allow you to make fast, continuous entries while printing.

Full floating or add-mode decimal selection. Constant for repetitive multiplication or division. Non-add key prints reference numbers.

Uses same Thermal Paper as TI 5050M \$2.95 for 3 roll pack

Texas Instruments portable electronic calculator TI Business Analyst



YOUR COST
\$43⁹⁵

TI Business Analyst

This rechargeable handheld calculator features preprogrammed financial functions. Allows you to solve time and money problems such as compound interest, loans, mortgages, investment yields, etc.

Special keys for financial data activate preprogrammed functions. Example: to compute compound interest and annuities, five keys are used: interest rate, payment, number of periods, future value, and present value. Three keys dedicated to solving problems involving cost, selling price, and gross profit margins.

Internal linear regression program determines a best fit line for a set of data—useful in forecasting trends.

Includes reciprocals, squares, roots, powers, natural logarithms, e^x , scientific notation, and 15 sets of parentheses.

TI Business Analyst comes complete with vinyl carrying case, fast charge battery pack, AC adapter/charger.

The SR-56

The super scientific that's key programmable—containing functions found in FORTRAN



The SR-56's 10 addressable memories with full register arithmetic plus 74 preprogrammed functions and operations including mean/standard deviation and polar to rectangular conversion makes the most cost effective way to put computer-like programmability in your pocket.

Using TI's new and unique Algebraic Operating System (AOS) with full hierarchy and parenthesis (first introduced on the powerful SR-52) allows a step-function increase in calculating ease even over the classical SR-50/51 with their sum of products capability. AOS remembers numbers and operators allowing you to key in as an example an expression like this

$$1 + 3 \times \left[4 + \frac{5}{\left(7 - \frac{2}{9} \right)} \right]$$

YOUR COST
\$94⁹⁵

exactly as stated, left to right. The SR-56 has an 8 register stack and 9 levels of parentheses which handle up to 7 pending operations.

With 100-step program memory, 6 logical decision functions, 4 levels of subroutines and 2 loop control instructions, you truly have computer-like power in your pocket. Repetitive problems are no longer repetitive; develop "what if" matrices, optimize mathematical models, make better decisions.

The key programming features on the SR-56 are *decrement-and-skip-on-zero* for iterating a loop a specified number of times; *Four levels of subroutines* allowing more efficient program step utilization; and a *test register* to which the display is compared for conditional branches, or checking intermediate results for possible pass along to subroutine operations.

The SR-56 comes complete with an applications book full of programs to solve some of your problems now. It also fits directly onto the PC-100 thermal printer which will give hard copy printout of results, intermediate calculations or the complete program listing.

Your program is kept indefinitely while the SR-56 is operated from the standard charger included, or while on the PC-100. It is also kept intact while running from charged batteries. The batteries are fully rechargeable in a few hours.



YOUR COST

\$28⁹⁵SUGGESTED
RETAIL \$39.95**The TI-2550-II**

Richly styled yet easy to use and easy to read. Large, bright green 8-digit vacuum fluorescent display. And with keyboard functions useful to businessmen as well as engineers and students.

Has a full function memory system: Add-to, and subtract from memory $\boxed{M+}$, $\boxed{M-}$. Recall \boxed{MR} and clear from memory \boxed{MC} . Set decimal two ways: 2-places or full floating. It positions automatically.

Special functions include reciprocals, squares, square roots and a reverse $\boxed{1/x}$ to let you invert fractions and recall next-to-last entry during addition and subtraction. Automatic constant permits repetitive addition, subtraction, multiplication or division of a number by a constant.

Fast-charge battery pack provides 4 to 6 hours of continuous use before recharging from the included AC adapter/charger.

Texas Instruments

YOUR COST

\$59⁹⁵**The TI-5100**

A versatile, quality calculator can increase calculating efficiency in the office or at home with silent effortless operation. The TI-5100 adds, subtracts, multiplies, divides and features a memory to store and recall numbers. Display shows M when a number is in memory. Overflow is indicated by an arrow at the left of the display. Subtotals may be added or subtracted from the memory by using the convenient $\boxed{M+}$ or $\boxed{M-}$ keys. \boxed{MR} key recalls from memory. \boxed{MC} key clears memory. Percentage problems can be easily solved by using the $\boxed{\%}$ key. \boxed{N} is an item count key for simplified inventory and calculation of averages. Constant switch lets you select constant mode for multiplication or division by the same number without reentering. Decimal selector switch positions decimal at full floating or presets at two places. Large 10-digit green vacuum fluorescent display (with comma) for easy readability. Operates directly from household voltage through detachable plug-in AC adapter.

SUGGESTED
RETAIL \$69.95**Texas Instruments
electronic calculator
TI-1600****The TI-1600**

A slimly styled calculator featuring four-function capability plus percent key, automatic constant in all four functions, and easy-to-read 8-digit vacuum fluorescent display. A change-sign key helps solve complex problems. The handsome new slim styling gives you all this capability in a truly portable pocket calculator. And, it's easy to use. Solve problems by simply pressing the keys just as the problem is stated.

The fully portable TI-1600 operates from a fast charge battery providing 3 to 5 hours of continuous use before recharging and operates from standard house current. AC Adapter/Charger and carrying case included with the calculator.



YOUR COST

\$21⁹⁵**Texas Instruments
electronic calculator
with memory
TI-1650****The TI-1650**

Attractive slim styling plus powerful memory and large easy-to-read 8-digit vacuum fluorescent display. Adds, subtracts, multiplies, divides and has a percent key to calculate percentages, taxes and discounts. A change-sign key helps solve complex problems. Simply press the keys the way the problem is stated.

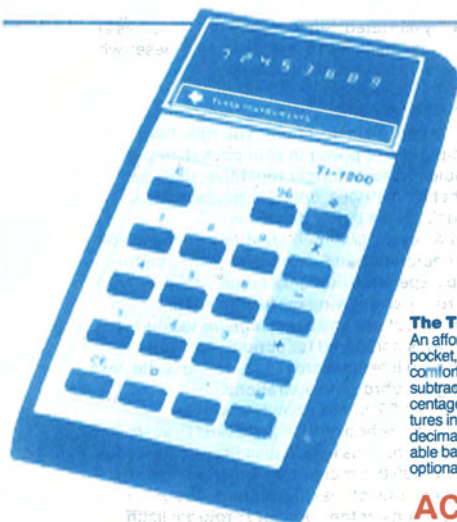
Four-key memory lets you add to, subtract from, recall or clear the memory without affecting the numbers in the display.

An automatic constant provides for repetitive addition, subtraction, multiplication and division of a number by a constant.

Fast charge battery provides 3 to 5 hours of continuous use before recharging and operates from standard house current. The Adapter/Charger and carrying case are included with the calculator.



YOUR COST

\$25⁹⁵

YOUR COST

\$8⁹⁵**The TI-1200**

An affordable calculator you can carry in your pocket, briefcase, or purse, styled to be used comfortably in your hand or at your desk. Adds, subtracts, multiplies, divides, and figures percentages instantly and accurately. Other features include automatic constant, full floating decimal, 8-digit display. Operates on replaceable battery or AC (adapter available as an optional accessory).

AC ADAPTER
OPTIONAL \$5.95

YOUR COST

\$11⁵⁰**The TI-1250**

Alightweight and economical calculator offering a full function memory system that features add to memory $\boxed{M+}$, subtract from memory $\boxed{M-}$, memory recall \boxed{MR} , and memory clear \boxed{MC} keys. Five-function capability includes addition, subtraction, multiplication, division, and a percent key for calculating percentages, taxes, discounts. Change-sign key for entering negative numbers. Automatic constant eliminates reentering the same number for repetitive calculations. Full floating decimal. 8-digit display. Operates on replaceable battery or AC (adapter available as an optional accessory).



AC ADAPTER OPTIONAL \$5.95

All Texas Instruments

carry one year Guaranty by Texas Instruments Inc. Except for models TI 1200 - TI 1250 plus "1270" which carry only 90 days warranty by TI. . AC adapters optional with models TI 1200 - TI 1250 - SR16-2 at \$5.95 each. 110/240 volts charger for SR50A or SR51A \$7.95 each. Battery pack use for SR50A or SR51A your cost \$7.95 each.

Texas Instruments

"Little Professor"

A fun way for children age 5 years and up to practice basic mathematics facts.

The Little Professor is a unique product designed specifically to aid children age 5 years and up in exploring basic mathematics. The Little Professor generates a sequence of problems—over 16,000 preprogrammed problems in all—and involves children in mathematics through an enjoyable "instant feedback" situation. It allows a child to select problems geared to his individual level of skill.

How does it work?

First, the degree of problem difficulty is selected by setting the four-position switch on the right side of the machine. Position 1 is the lowest, and 4 is the highest degree of difficulty.

Next, the arithmetic function is selected by pressing the appropriate function key, $+$, $-$, \times , \div . Then the function is locked in and the machine cleared by pressing the "SET" key.

So, if a child wanted to practice addition, he would press "+", "SET", and then "GO" to generate the first problem.

After observing the problem, which appears on the large VLED display as an equation (such as $2 + 4 =$) the child is given three opportunities to input the correct answer through the keyboard.

- If, for example, he incorrectly enters "7" as an answer to the above example, an error indication of "EEE" will be displayed for one second and he will have two additional chances to solve the equation correctly.
- If the correct answer is not given in three chances, the completed equation will appear on the display ($2 + 4 = 6$) giving the child the correct answer. By pressing the "GO" key, the child can then proceed to the next problem.
- If the child inputs the correct answer "6", the completed equation ($2 + 4 = 6$) will appear on the display for approximately one second and then a new problem will automatically be displayed.



YOUR COST
\$17.95

Texas Instruments microelectronic digital watches

TI-501, TI-502: New Texas Instruments value breakthrough with full five-function timekeeping.

Two amazing new time instruments starting from \$19.95. TI brings the precision of a quality electronic watch and space-age styling within practically anyone's budget.

These two styles are in black, brown, beige and white Polysulfone, a new material specially selected for astronauts' helmet visors because of



TI-501

TI-502

MODELS 501 & 502
Your Cost \$17.95

its heat and scratch resistance, great durability and light weight. TI watches: advanced technology outside—and of course, inside.

TI technology not only eliminates moving parts found in conventional watches, but also reduces the internal components and connections of other solid-state watches. The result is a watch module designed to provide years of reliable, accurate timekeeping.

You use only one command button to control all five time functions—hours, minutes, seconds, month and date. It's that simple. And because TI watches have no moving parts, there's very little to go wrong. In fact, unless misused or damaged, replacement of two inexpensive batteries is all the service these watches should ever need.

Unmatched microelectronic knowhow and unsurpassed value: the reasons why Texas Instruments leads the field today in time technology. And the reasons why TI's new TI-501 and TI-502 offer you so much timekeeping performance starting at \$19.95.



From the company that invented the integrated circuit and made microelectronic timekeeping possible.

MODELS 501 & 502
Subject to Availability

Texas Instruments TI-401: Superior electronic timekeeping in a five-function watch you can afford.

Texas Instruments breaks the \$30 price barrier with an amazing timekeeping value—the new TI-401 digital watch.

Now you can own an economical, precision five-function watch from the established leader in microelectronic time technology. The TI-401 has no frills—just superior electronics you can't sur-

pass at any price—in a five-function timepiece designed to provide years of dependable service. TI technology not only eliminates moving parts found in conventional watches, but also reduces the internal components and connections of other solid-state watches. The result is a microelectronic watch providing greater reliability and more performance for your dollar.

You use only one command button to control five time functions—hours, minutes, seconds, month and date. It's that simple. And because the TI-401 has no moving parts, there's very little to go wrong. In fact, unless misused or damaged, replacement of two batteries is all the service it should ever need.

Unmatched microelectronic know-how and unsurpassed value: the reasons why Texas Instruments leads the field today in time technology.



From the company that invented the integrated circuit and made microelectronic timekeeping possible.

Choose from four TI-401 models.

Model	Retail	Your Cost
TI-401 white tone, black vinyl	\$29.95	\$28.95
TI-401 white tone, metal band	34.95	31.95
TI-401 gold tone, brown vinyl	34.95	31.95
TI-401 gold tone, metal band	39.95	36.95

electronic calculators from Texas Instruments



Calculating Characteristics: Professionals

Function	TI-30	BUSINESS ANALYST	SR-50A	SR-51A	SR-52	SR-56	SR-60
Constant	*			*			
Log	*		*	*	*	*	*
lnx	*	*	*	*	*	*	*
10 ^x	*		*	*	*	*	*
e ^x	*	*	*	*	*	*	*
x ²	*	*	*	*	*	*	*
\sqrt{x}	*	*	*	*	*	*	*
$\sqrt[y]{x}$	*	*	*	*	*	*	*
y ^x	*	*	*	*	*	*	*
1/x	*	*	*	*	*	*	*
x!	*		*	*	*	*	*
%	*	*	*	*	*	*	*
$\Delta\%$	*	*	*	*	*	*	*
π	*		*	*	*	*	*
STO, RCL, SUM (to memory)	*	*	*	*	*	*	*
Int x (integer part)					*	*	*
2nd Int (fractional part)					*	*	*
Trig: sin, cos, tan, and inverses	*		*	*	*	*	*
Hyperbolic: sinh, cosh, tanh and inverses			*	*	*	*	*
Deg/min/sec to decimal deg. conversion and inverse				*	*	*	*
Deg. to Rad. conversion and inverse			*	*	*	*	*
Polar to rectangular conversion and inverse			*	*	*	*	*
Mean, variance and standard deviation				*	*	*	*
Linear regression		*		*	*	*	*
Trend line analysis		*		*	*	*	*
Slope and intercept		*		*	*	*	*
Automatic permutation				*	*	*	*
Random number generator				*	*	*	*
Conversions			1	20	*	*	*
Metric conversion constants				13	*	*	*
Number of periods		*			*	*	*
% interest		*			*	*	*
Payment		*			*	*	*
Present value		*			*	*	*
Future value		*			*	*	*
Cost		*			*	*	*
Selling price		*			*	*	*
Margin		*			*	*	*
Annuity		*			*	*	*

*Programmable functions

Physical Characteristics: General Purpose Calculators

	TI-1200	TI-1250	TI-1270	TI-1600	TI-1650	TI-2550-II	TI-5050-M	TI-5100	TI-5040
Weight	5.5 oz.	5.5 oz.	7. oz.	3.6 oz.	3.6 oz.	7.0 oz.	28.0 oz.	less than 2 lbs.	3.25 lbs.
Size	5.5 x 2.8 x 1.3	5.5 x 2.8 x 1.3	5.5 x 2.8 x 1.3	4.9 x 2.8 x 0.6	4.9 x 2.7 x 0.6	5.8 x 3.2 x 1.25	8.7 x 3.9 x 2.7	7.8 x 7.6 x 2.5	9.5 x 9.3 x 2.9
Batteries									
Replaceable (not incl.) *	*	*	*	*	*	*	*	*	*
Rechargeable									
AC Adapter	*	*	*	*	*	*	*	*	*
AC Operation only								*	*

*Optional — not included

Calculating and Operating Characteristics: General Purpose Calculators

Function	TI-1200	TI-1250	TI-1270	TI-1600	TI-1650	TI-2550-II	TI-5050-M	TI-5100	TI-5040
Digits displayed or printed	8	8	8	8	8	8	10 (print)	10	10 Both
Decimal select: floating	*	*	*	*	*	*	*	*	*
preset						2	2	2	2
Automatic constant	*	*	*	*	*	*	*	Select	*
Memory		*	*	*	*	*	*	*	*
Independent Add Register						*	*	*	*
% Key	*	*	*	*	*	*	*	*	*
Add mode						*	*	*	*
Special keys		change sign	1/x, \sqrt{x} , x ² , π , change sign	change sign	change sign	1/x, \sqrt{x} , x ² , Rev	paper advance, non-add	item count	paper advance, print, non-add
Printing tape							*	*	*

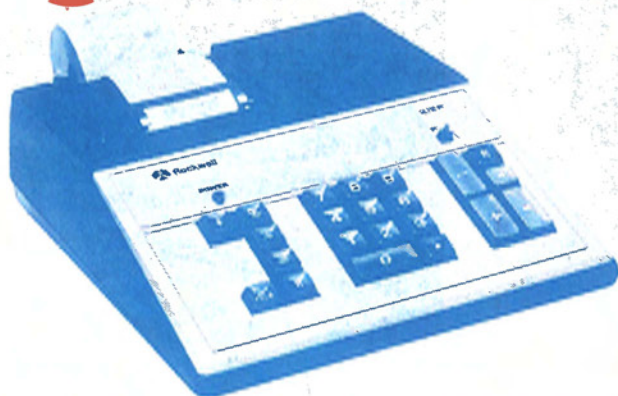
Physical Characteristics: Professional Calculators

	TI-30	BUSINESS ANALYST	SR-50A	SR-51A	SR-52	SR-56	PC-100	SR-60
Weight	4.2 oz. (w/o battery)	5.5 oz.	8.3 oz.	8.3 oz.	12.3 oz.	8.3 oz.	7 lbs.	16 lbs.
Size	5.47 x 2.83 x 1.35	5.47 x 2.83 x 1.35	5.8 x 3.2 x 1.25	5.8 x 3.2 x 1.25	6.44 x 3.31 x 1.70	5.8 x 3.2 x 1.25	10.5 x 10.3 x 4.0	17 x 14.7 x 5.5
Batteries								
Replaceable (not incl.)	*	*	*	*	*	*	*	*
Rechargeable	*	*	*	*	*	*	*	*
AC Adapter/Charger	*	*	*	*	*	*	*	*
AC Operation Only							*	*

*Optional — not included



MODEL 212 P Electronic Printing Calculator



Features:

- 12-digit printing capability
- Add mode or floating decimal selection
- Automatic 5/4 round-off
- Repeat addition/subtraction
- Automatic percent calculations
- Non-add key
- Separate adding machine
- Automatic constants
- Paper feed key
- Dual-function clear key

Operational features:

- Buffered keyboard
- Two-key rollover
- Quiet printer
- Oversized plus-bar and minus-bar
- Color-coded keyboard/separate adding machine controls
- Printout has symbolic audit trail
- Red print for negative numbers
- Power-on indicator
- Uses standard 2 1/4-inch paper tape

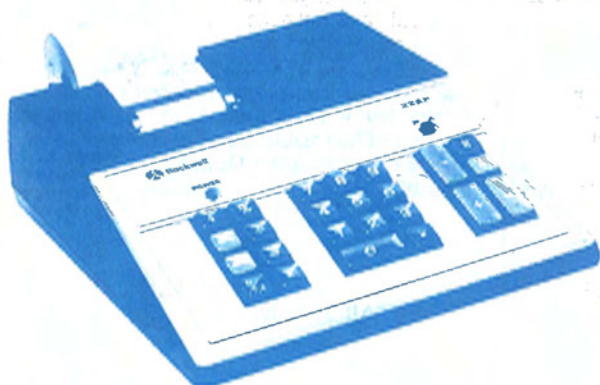
Specifications:

Power: 115V, 50 Hz or 230V, 60 Hz Detachable power cord
 Weight: 7 pounds 2 ounces
 Dimensions: length: 12 inches width: 9 inches height: 3 1/2 inches
 Printing speed: 2.7 lines per second

RETAIL \$129.95

YOUR COST
\$97⁹⁵

MODEL 222 P Electronic Printing Calculator



Features:

- 12-digit printing capability
- Add mode or floating decimal selection
- Automatic 5/4 round-off
- Repeat addition/subtraction
- Automatic percent calculations
- Non-add key
- Separate adding machine
- Automatic positive & negative accumulation
- Automatic constants
- Paper feed key
- Dual-function clear key

Operational features:

- Buffered keyboard
- Two-key rollover
- Quiet printer
- Oversized plus-bar and minus-bar
- Color-coded keyboard/separate adding machine controls
- Printout has symbolic audit trail
- Red print for negative numbers
- Power-on indicator
- Uses standard 2 1/4-inch paper tape

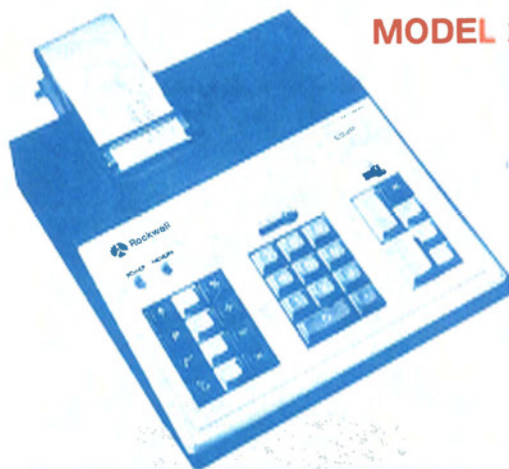
Specifications:

Power: 115V, 50 Hz or 230V, 60 Hz Detachable power cord
 Weight: 7 pounds 2 ounces
 Dimensions: length: 12 inches width: 9 inches height: 3 1/2 inches
 Printing speed: 2.7 lines per second

RETAIL \$149.95

YOUR COST
\$112⁹⁵

MODEL 232 P Electronic Printing Calculator with memory



Features:

- 12-digit printing capability
- Punctuation by grouping
- Add mode, float and decimal setting 0, 1, 2, 3
- Automatic 5/4 round-off
- Separate adding machine
- Grand total register
- Item counter
- Independent memory
- Repeat addition/subtraction
- Constant multiplication and division
- Automatic percent calculations with add-on, discount capability
- Non-add key
- Square root
- Memory indicator
- Paper feed key

Operational features:

- Buffered keyboard
- Two-key rollover
- Quiet printer
- Printout has symbolic audit trail
- Red print for negative numbers
- Oversized plus-bar, minus-bar and zero-bar
- Color-coded keyboard/separate adding machine controls
- Power-on and memory indicators

Specifications:

Power: 115V, 50/60 Hz or 230V, 50/60 Hz. Detachable power cord
 Weight: 7 pounds 2 ounces
 3.23 kg.

Dimensions: length: 12 inches width: 9 inches height: 3 1/2 inches
 305 mm 229 mm 89 mm

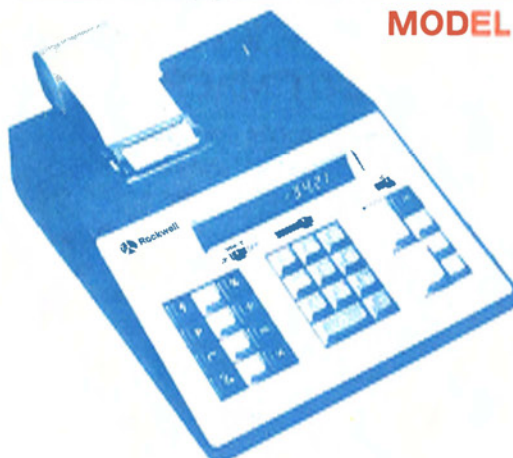
Printing speed: 2.5 lines per second

Paper: standard 2 1/4 inch (57.15 mm)

RETAIL \$199.95

YOUR COST
\$139⁹⁵

MODEL 242 P Electronic Printing and Display Calculator with memory



Features:

- Display—12-digit green display with large, easily read digits
- 12-digit printing capability
- Punctuation by grouping
- Add mode, float and decimal setting 0, 1, 2, 3
- Automatic 5/4 round-off
- Separate adding machine
- Grand total register
- Item counter
- Independent memory
- Repeat addition/subtraction
- Constant multiplication and division
- Automatic percent calculations with add-on, discount capability
- Non-add key
- Square root
- Paper feed key

Specifications:

Power: 115V, 50/60 Hz or 230V, 50/60 Hz. Detachable power cord
 Weight: 7 pounds 2 ounces
 3.23 kg.

Dimensions: length: 12 inches width: 9 inches height: 3 1/2 inches
 305 mm 229 mm 89 mm

Printing speed: 2.5 lines per second

Paper: standard 2 1/4 inch (57.15 mm)

Operational features:

- Display permits visual verification of entries and intermediate results
- Buffered keyboard
- Two-key rollover
- Quiet printer
- Printout has symbolic audit trail
- Red print for negative numbers
- Oversized plus-bar, minus-bar and zero-bar
- Color-coded keyboard/separate adding machine controls
- Power-on, negative, memory and overflow indicators

RETAIL \$229.95

YOUR COST
\$159⁹⁵


Rockwell International

...where science gets down to business


MODEL 350 SCIENTIFIC
**Desktop Scientific Electronic Calculator,
Suggested Retail \$99.95**

Performs such complex calculations as degree/radian conversions and parenthetical operations. It features:

- 19 Scientific functions • Scientific notation • 2 levels parentheses • 3 key memory • Large, green, 10-digit display • Common and natural log and anti log • Yx • Square root • Trig and inverse trig • Polar to rectangular coordinate conversions • Decimal degree to degree, minute, second conversions • Degree/radian/grad • Reciprocal • Pi • Change sign • Algebraic logic • Automatic repeat • Floating decimal • Dual clear entry/clear all key • Automatic underflow • Automatic leading zero suppression • Dust cover • Operates on AC

RETAIL \$99.95

**YOUR COST
\$79.50**

MODEL 310 GOOD SELLER
**Display Calculator,
Suggested Retail \$69.95**

The 310's memory power with full positive and negative accumulating capability, add mode, flexible decimal system, automatic percentages plus its compact convenience make this model well worth its modest price.

- 8 digits • Add mode • Floating decimal or fixed at 2 or 4 places • Accumulating memory • Percent key with automatic add on and discount capabilities • Change sign key • Chain calculations • Repeat addition/subtraction • Color coded keyboard • AC operation with 8 foot cord • Dust cover • Compact, weighs 1 pound, 4 ounces.

RETAIL \$69.95

**YOUR COST
\$54.95**

MODEL 320
**Electronic Business Calculator,
Suggested Retail \$129.95**

A calculator to give you just about every feature you'd ever need for normal business calculations - including 12-digit capacity and a powerful memory.

- Easy-to-read display • 12-digit capacity • Memory • Add mode and flexible decimal system • N count • Percent key • Repeat add/subtract • Automatic constants • Chain calculations • Exchange key • Credit balance • Memory light • Memory protect • Comma punctuation

RETAIL \$129.50

**YOUR COST
\$99.95**

MODEL 22MS
**Electronic Calculator-in-a-wallet for the busy and active women of today,
Suggested retail \$24.95**

- Thin, lightweight calculator • Extra-large, 8-digit, green display • Four-key, fully addressable memory • Percent key with automatic add-on and discount • Square root key • Change sign key • Easy to use algebraic logic • Floating decimal (positions decimal point in answers automatically) • Dual clear entry/clear all key • Automatic constant • Repeat functions • Chain calculations • Memory indicator • Negative indicator • Indicator for improper operations • Automatic clearing at turn-on • Maintains trailing zeros in add and subtract for monetary calculations • Battery operated • Batteries included • Jack for use with optional AC adapter • Wallet carrying case included

RETAIL \$24.95

**YOUR COST
\$21.95**

MODEL 22K
**Electronic Calculator with 4-Key Addressable Memory and Percent,
Suggested Retail \$24.95**

This extra slim, lightweight calculator in a billfold has been designed for the businessman on the go. Features include:

- Four-key, fully addressable memory • Square root key • Extra-large, 8-digit, green display • Percent key with automatic add-on and discount • Change sign key • Easy to use algebraic logic • Floating decimal • Dual clear entry/clear all key • automatic constant • Repeat functions • Chain calculations • Memory indicator • Negative indicator • Indicator for improper operations • Automatic clearing at turn-on • Maintains trailing zeros in add and subtract for monetary calculations • Battery operated • Batteries included • Jack for use with optional AC adapter • Wallet carrying case included

RETAIL \$24.95

**YOUR COST
\$21.95**

**"JACK POT"
SLOT MACHINE**
**Electric Jackpot
Battery Operated
Takes Dimes**

 RETAIL IN
LAS VEGAS \$49.50

**YOUR COST
\$24.95**

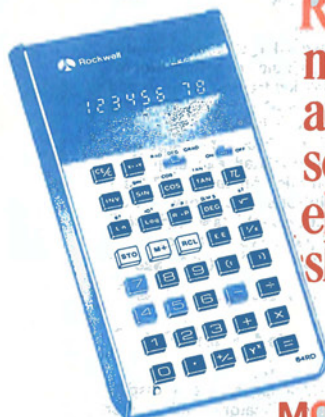
WINNING COMBINATIONS





Rockwell International

Rockwell's most advanced scientific slide rule 64RD



MODEL 64RD

- Extra-large, 12-digit, green display with scientific notation
- Algebraic logic
- Full floating and scientific notation entry capability
- Two levels of parentheses
- Addressable memory: store, recall, M+
- Trigonometric functions in either degrees, radians or grads
- Inverse trigonometric functions in either degrees, radians or grads
- Polar coordinates converted to or from rectangular coordinates in either degrees, radians or grads
- Degrees, minutes and seconds converted to or from decimal degrees
- Base e logarithm
- Base 10 logarithm
- Base e exponential
- Base 10 exponential
- Y* for raising numbers to powers
- Constant π key
- Scientific functions and arithmetic functions can be intermixed in chain calculations
- Dual clear entry/clear key
- Square root
- Square
- Reciprocal
- Register exchange
- Change sign
- Automatic constants
- Automatic repeat

Specifications:

Power: Three AA carbon-zinc disposable batteries deliver approximately 5 to 8 hours of operation

Retail \$39.95

YOUR COST
\$33.95



MODEL 24K-2

Electronic Calculator with 4-Key Addressable Memory and Percent,

suggested retail \$34.95

YOUR COST \$28.95 Including Charger

- Lightweight • Thin Profile • 8 digit, extra large, green display • Percent key with automatic add-on and discount • Four-key completely addressable memory • Memory indicator • Square root • Exchange key • Change sign • Algebraic logic • Floating decimal • Dual clear entry/clear all key • Automatic clearing at turn-on • Automatic constants • Automatic repeat • Chain calculations • Indicator for improper calculations • Maintains trailing zeros in add and subtract for monetary calculations • Rechargeable nickel-cadmium batteries • Battery charger • Handsome billfold • Quality ballpoint pen in holder • Calculator pocket securely holds the 24KII • check or notebook pocket • Transparent credit card inserts.



MODEL 44RD

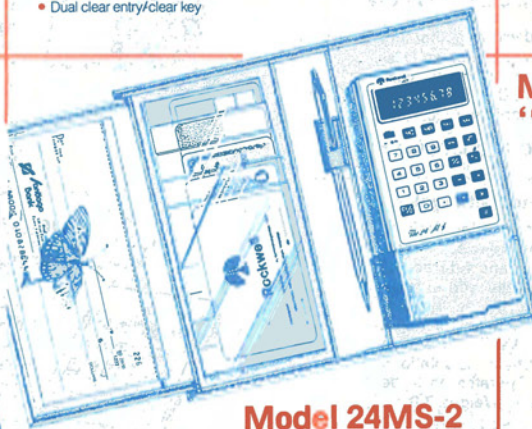
Features:

- Extra-large, 9-digit, green display with scientific notation
- Algebraic logic
- Full floating and scientific notation entry capability
- Parentheses—Two levels: one level available during trigonometric and logarithm calculations
- Store/recall memory
- Trigonometric functions in either degrees or radians
- Inverse trigonometric functions in either degrees or radians
- Base e logarithm
- Base 10 logarithm
- Base e exponential
- Base 10 exponential
- Y* for raising numbers to powers
- Constant π key
- Square root
- Square
- Reciprocal
- Change sign
- Automatic constants
- Automatic repeat
- Scientific functions and arithmetic functions can be intermixed in chain calculations
- Dual clear entry/clear key

Specifications:

Power: Three AA carbon-zinc disposable batteries deliver approximately 5 to 8 hours of operation

Retail \$26.95
YOUR COST \$23.50



Model 24MS-2

Rockwell Model 24MSII

Electronic Calculator-in-a-clutch purse for today's women, suggested retail \$34.95

- Lightweight • Thin profile • 8-digit, extra large, green display • Percent key with automatic add-on and discount • Four-key completely addressable memory • Memory indicator • Square root • Exchange key • Change sign • Algebraic logic • Floating decimal • Dual clear entry/clear all key • Automatic clearing at turn-on • Automatic constants • Automatic repeat • Chain calculations • Indicator for improper calculations • Maintains trailing zeros in add and subtract for monetary calculations • Rechargeable nickel-cadmium batteries • Battery charger • Handsome vinyl clutch purse in natural tan • Quality ballpoint pen in holder • Checkbook holder • Transparent credit card insert • Change purse.

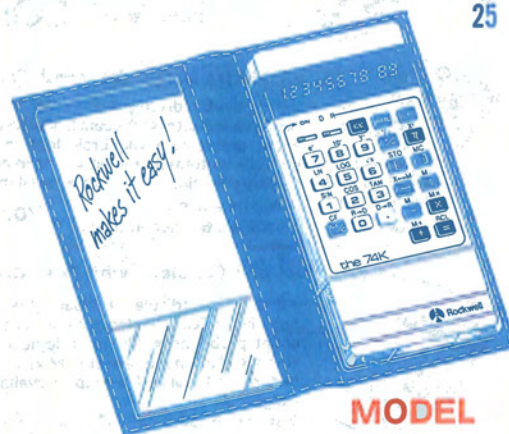
Including Charger

Retail \$34.95

YOUR COST
\$28.95

Rockwell's 44RD electronic slide rule

Here's a great
electronic slide
rule with
scientific
notation for
engineer and
student alike.



MODEL 74K

Features

- Lightweight • Thin profile
- Extra large, 12-digit, green display with scientific notation
- Full floating and scientific notation entry capability
- Negative indicators for mantissa and exponent
- Indicator for improper operations
- Leading and trailing zero suppression
- 8-Function fully addressable memory
- Memory indicator
- Algebraic logic
- Two levels of parentheses
- Trigonometric functions in degrees or radians
- Inverse trigonometric functions in degrees or radians
- Degree/radian conversion keys
- Common and natural logarithms
- Common and natural antilogarithms
- Y* for raising positive numbers to powers
- Factorial key • Constant π key
- Clear function key • Square root • Reciprocal
- Register exchange • Sign change
- Automatic constants • Repeat functions
- Operates on rechargeable nickel-cadmium batteries
- Battery charger included
- Wallet carrying case included

Retail \$59.95
YOUR COST \$49.95

**MODEL 204
"Financier"**



INCLUDING CHARGER

The 204 is pre-programmed to make the job easier for everyone, from financial analyst to real estate salesman to the retail merchant.

It can solve anything from basic arithmetic to financial problems that normally require the use of tables, complex formulas or sophisticated data processing equipment.

Features/Specifications.

- Logic selection switch: choose business or algebraic logic
- Four separate memories
- Chain calculations
- Automatic constants: + - \times
- Reciprocals
- Automatic percentage
- Automatic averages
- Square roots
- Sum of the squares
- Big, easy-to-read 8-digit digitron display
- Zero to seven decimal places
- Overflow indicator
- Negative number indicator
- Dimensions: 6 x 3 3/4 x 1 1/2 inches
- Weight: 12 ounces
- Power: Four AA Ni-Cad rechargeable batteries or alkaline batteries
- Temperature operating range: 5°C to 40°C (40°F to 104°F)

Retail \$99.50
YOUR COST \$49.95

**8R, Electronic Calculator with Percent**

- 8 digit LED display • Floating decimal • Floating negative indicator • Percent key solves add-on and discount problems • Algebraic logic • Automatic constants • Automatic repeat • Mixed calculations • 9V battery • Optional AC adapter available
- Weight: 5.7 oz.

Mfr Suggested Retail: \$10.88 YOUR COST \$9.88

**8R Pak, Electronic Calculator with Percent, Stand and Case**

- 8 digit LED display • Floating decimal • Floating negative indicator • Percent key solves add-on and discount problems • Algebraic logic • Automatic constants • Automatic repeat • Mixed calculations • 9V battery • Optional AC adapter available • Calculator weight: 5.7 oz.

Mfr Suggested Retail: \$14.88 YOUR COST \$12.50

**14RD, Electronic Calculator with Percent**

- 8 digit, extra large, green display • Floating decimal • Negative indicator • Indicator for improper operations • Maintains trailing zeros in add and subtract for monetary calculations • Percent key with automatic add-on and discount • Algebraic logic • Automatic constants • Automatic repeat • Chain calculations • Operates on four AA penlight batteries or optional AC adapter • Weight: 7.5 oz.

Mfr Suggested Retail: \$13.95 YOUR COST \$12.25

**18R, Memory Electronic Calculator with Percent**

- 8 digit LED display • Floating decimal • Floating negative indicator • Two key store/recall memory • Percent key solves add-on and discount problems • Algebraic logic • Automatic constants • Automatic repeat • Mixed calculations • 9V battery • Optional AC adapter available • Weight: 5.7 oz.

Mfr Suggested Retail: \$12.88 YOUR COST \$11.50

**18R Pak, Memory Electronic Calculator with Stand and Case**

- 8 digit LED display • Floating decimal • Floating negative indicator • Percent key solves add-on and discount problems • Algebraic logic • Automatic constants • Automatic repeat • Mixed calculations • 9V battery • Optional AC adapter available • Calculator weight: 5.7 oz.

Mfr Suggested Retail: \$16.88 YOUR COST \$14.88

**Model 22K, Man's Thin Line Calculator with Wallet**

- 8 digit, extra large, green display • Floating decimal • Negative indicator • Indicator for improper operations • Maintains trailing zeros in add and subtract for monetary calculations • Four-key, fully addressable memory • Memory indicator • Percent key with automatic add-on and discount • Algebraic logic • Square root key • Change sign key • Automatic constants • Repeat functions • Chain calculations • Wallet carrying case included • Operates on three AAA batteries or optional AC adapter • Weight: 7.0 oz.

Mfr Suggested Retail: \$24.95 YOUR COST \$21.95

**Model 22MS, Woman's Slim Line Calculator with Wallet**

- 8 digit, extra large, green display • Floating decimal • Negative indicator • Indicator for improper operations • Maintains trailing zeros in add and subtract for monetary calculations • Four-key, fully addressable memory • Memory indicator • Percent key with automatic add-on and discount • Algebraic logic • Square root key • Change sign key • Automatic constants • Repeat functions • Chain calculations • Wallet carrying case included • Operates on three AAA batteries or optional AC adapter • Weight: 7.0 oz.

Mfr Suggested Retail: \$24.95 YOUR COST \$21.95

**24RD-II, Full Memory Electronic Calculator**

- 8 digit, extra large, green display • Floating decimal • Negative indicator • Indicator for improper operations • Maintains trailing zeros in add and subtract for monetary calculations • Four-key, fully addressable memory • Memory indicator • Percent key with automatic add-on and discount • Algebraic logic • Square root • Change sign • Automatic constants • Automatic repeat • Chain calculations • Operates on three AA penlight batteries or optional AC adapter • Optional rechargeable batteries and recharger available • Weight: 7.5 oz.

Mfr Suggested Retail: \$18.95 YOUR COST \$16.50

24K, Electronic Calculator with 4-Key Addressable Memory and Percent

- Thin profile • 8 digit, extra large, green display • Floating decimal • Negative indicator • Indicator for improper operations • Maintains trailing zeros in add and subtract for monetary calculations • Four-key, fully addressable memory • Memory indicator • Percent key with automatic add-on and discount • Algebraic logic • Square root key • Register exchange key • Change sign key • Automatic constants • Repeat functions • Chain calculations • Billfold • Pen • Checkbook pocket • Credit card inserts • Rechargeable batteries • Battery charger • Weight 8.5 oz.

Mfr Suggested Retail: \$34.95 YOUR COST \$28.95

24K-II, Electronic Calculator with 4-Key Addressable Memory and Percent

- Thin profile • 8 digit, extra large, green display • Floating decimal • Negative indicator • Indicator for improper operations • Maintains trailing zeros in add and subtract for monetary calculations • Four-key, fully addressable memory • Memory indicator • Percent key with automatic add-on and discount • Algebraic logic • Square root key • Register exchange key • Change sign key • Automatic constants • Repeat functions • Chain calculations • Billfold • Pen • Checkbook pocket • Credit card inserts • Rechargeable batteries • Battery charger • Weight 8.5 oz.

Mfr Suggested Retail: \$34.95 YOUR COST \$28.95

74K, Thin Line Scientific

- Extra large, 10-digit green display with scientific notation • Full floating and scientific notation entry capability • Negative indicators for mantissa and exponent • Indicator for improper operations • Leading and trailing zero suppression • 8-function, fully addressable memory • Memory indicator • Two levels of parentheses • Algebraic logic • Trigonometric and inverse trigonometric functions • Degree/radian mode • Degree/radian conversion keys • Common and natural log and antilog • Y^X for raising positive numbers to powers • Factorial key • Constant π key • Square root • Reciprocal • Register exchange • Sign change • Clear function key • Automatic constant • Repeat functions • Wallet carrying case • Rechargeable batteries • Battery charger • Weight: 7.0 oz.

Mfr Suggested Retail: \$59.95 YOUR COST \$49.95

ROCKWELL DESK DISPLAY LINE**310-A, 8-Digit Electronic Display Calculator with Percent**

- Large, green 8-digit display • Add mode and flexible decimal system • Accumulating memory • Percent key solves add-on and discount problems • Business logic • Change sign • Automatic constants • Automatic repeat • Dust cover • Operates on AC • U.L. listed • Weight: 1-lb, 12-oz.

Mfr Suggested Retail: \$69.95 YOUR COST \$54.95

320, 12-Digit Electronic Display Calculator with Memory & Percent

- Large green, 12-digit display • Add mode and flexible decimal system • Fully independent memory • Memory light • Percent key solves add-on and discount problems • Repeat add/subtract • Credit balance • Automatic constants • Chain calculations • N count • Exchange key • Operates on AC • Weight: 2-lb, 8-oz.

Mfr Suggested Retail: \$129.95 YOUR COST \$99.95

350, Electronic Display Calculator with Scientific Functions

- Extra-large, 10-digit, green display with scientific notation • Negative indicators for mantissa and exponent • Full floating and scientific notation entry capability • Algebraic logic • Addressable memory: store, recall, M+ • Two levels of parentheses • Trigonometric/inverse trigonometric functions in either degrees, radians or grads • Common and natural log and antilog • Polar/rectangular conversions • Degree, minute, second/decimal degree conversions • Y^X for raising numbers to powers • Constant π key • Square root • Square • Reciprocal • Register exchange • Change sign • Automatic constants/repeat • Dust cover • Operates on AC • Weight 1 lb, 12 oz.

Mfr Suggested Retail: \$99.95 YOUR COST \$79.50

24MS, Calculator with Woman's Wallet Order Model "24MS Gold" "24MS Red" "24MS Tan"



- Thin profile • 8 digit, extra large, green display
- Floating decimal • Negative indicator • Indicator for improper operations • Maintains trailing zeros in add and subtract for monetary calculations • Four-key, fully addressable memory • Memory indicator • Percent key with automatic add-on and discount • Algebraic logic • Square root key • Register exchange key • Change sign key • Automatic constants • Repeat functions • Chain calculations • Wallet • Pen • Checkbook holder • Credit card inserts • Change purse • Rechargeable batteries • Battery charger • Weight: 12.2 oz.

Mfr Suggested Retail: \$34.95 YOUR COST \$28.95

44RD, Scientific Calculator



- Extra-large, 8-digit, green display with scientific notation • Negative indicators for mantissa and exponent • Full floating and scientific notation entry capability • Algebraic logic • Store/recall memory • Parentheses • Trigonometric and inverse trigonometric functions • Degree/radian mode • Common and natural log and antilog • YX for raising numbers to powers • Constant π key • Square root • Square • Reciprocal • Change sign • Automatic constants • Automatic repeat • Carrying case • Operates on three AA penlight batteries or optional AC adapter • Optional rechargeable batteries and recharger available • Weight: 8 oz.

Mfr Suggested Retail: \$26.95 YOUR COST \$23.50

51R Universal Converter Electronic Calculator. The Answer.



Truly the businessman's and traveler's companion, this model is preprogrammed to perform 224 conversions involving U.S., metric and imperial units of measure (feet/meters/nautical miles/etc.). It can be user-programmed for special problems. There is no limit to

the number of conversion factors the 51R can handle. It also does fraction calculations with impressive ease and speed. And much more:

- 2 fully addressable memories (M+, M-, MR, MC)
- Fraction calculations • 224 fixed conversions
- Programmable conversion • Algebraic logic
- Automatic constant • Automatic repeat
- Mixed calculations • Large, green 8 digit display
- Floating or two-place decimal • Negative indicator
- Dual clear entry/clear all key
- Rechargeable batteries • Battery charger
- Carrying case

YOUR COST
\$49.95

24MS-II, Calculator with Woman's Wallet Order Model "24MS II Tan"



- Thin profile • 8 digit, extra large, green display
- Floating decimal • Negative indicator • Indicator for improper operations • Maintains trailing zeros in add and subtract for monetary calculations • Four-key, fully addressable memory • Memory indicator • Percent key with automatic add-on and discount • Algebraic logic • Square root key • Register exchange key • Change sign key • Automatic constants • Repeat functions • Chain calculations • Wallet • Pen • Checkbook holder • Credit card inserts • Change purse • Rechargeable batteries • Battery charger • Weight: 12.2 oz.

Mfr Suggested Retail: \$34.95 YOUR COST \$28.95

64RD, Advanced Scientific Slide Rule Calculator



- Extra-large, 10-digit, green display with scientific notation • Negative indicators for mantissa and exponent • Full floating and scientific notation entry capability • Algebraic logic • Addressable memory: store, recall, M+ • Two levels of parentheses • Trigonometric/inverse trigonometric functions in either degrees, radians or grads • Common and natural log and antilog • Polar/rectangular conversions • Degree, minute, second/decimal degree conversions • YX for raising numbers to powers • Constant π key • Square root • Square • Reciprocal • Register exchange • Change sign • Automatic constants/repeat • Carrying case • Operates on three AA penlight batteries or optional AC adapter • Optional rechargeable batteries and recharger available • Weight: 9.0 oz.

Mfr Suggested Retail: \$39.95 YOUR COST \$33.95

Rockwell Model 204 Financier



Applications.

- Cost/margin/price calculations
- Present and future value
- Interest amount
- Loan payment
- Amortization
- Depreciation
- Annuities
- Trend lines
- Number of periods

Features/Specifications.

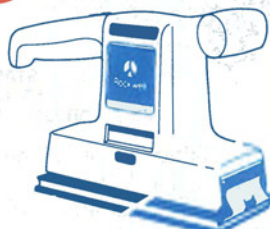
- Logic selection switch: choose business or algebraic logic
- Four separate memories
- Chain calculations

- Automatic constants: + - × ÷
- Reciprocals
- Automatic percentage
- Automatic averages
- Square roots
- Sum of the squares
- Big, easy-to-read 8-digit digitron display
- Zero to seven decimal places
- Overflow indicator
- Negative number indicator

Suggested Retail \$99.95

YOUR COST
\$49.95

Rockwell POWER TOOLS

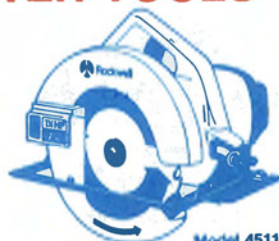


Model 4420

Hi-speed Orbital Sander

12,000 orbits per minute for swirl-free finish. 25 1/2 sq. in. pad. Sands flush 3 sides. Double insulated, ball bearing construction. Handy and a great value. Model 4420.

YOUR COST
\$29.95



Model 4511

Ball Bearing Equipped 7 1/4" Circular Saw

More power. 9 amps; 5800 rpm, a terrific tool. Big cutting capacity, and packed with performance and safety features to get your projects done faster. Model 4511.

YOUR COST
\$34.95

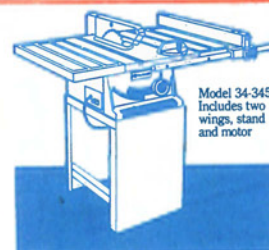
Homecraft® Saw Special

9" Homecraft® Motorized Saw with stand, two wings and just 16 more buys the Rockwell 4007 Cordless Drill. Homecraft® saw features ball bearing construction, see thru blade guard, splitter and anti-kickback attachments. Rips to center of 30" board. With instore display package 34-591.

Model 34-585



YOUR COST
\$170.00



Model 34-345
Includes two wings, stand and motor

10" Motorized Saw Package

Thermal overload protected motor develops 2 1/2 hp. 24" rip capacity right or left, crosscuts up to 3 1/4". Fully enclosed drive mechanism. Self-aligning rip fence with up-front controls. Sealed ball bearing construction. See-thru blade guard with splitter and anti-kickback attachment. UL listed. Model 34-345.

WAS \$349.95
NOW \$298.39



Model 46-011

10" WOOD LATHE with Stand Optional 1/3 H.P. Motor Available.

YOUR COST \$169.95

CALL US FOR SPECIAL PRICES
ON ROCKWELL POWER TOOLS



Through thick Model 28-120.

The Rockwell 10" Bandsaw Cuts intricate shapes in wood up to 6 1/4" thick (Includes stand, motor extra)

WAS \$219.99
NOW \$189.99

The drill that does more jobs. Better.

Rockwell's 32" Radial Drill Press—the most versatile drill press you can buy

Model 11-072.

WAS \$219.99



NOW \$189.99

1 1/2 H.P. 10" DELUXE RADIAL ARM SAW

Model 33-205

WAS \$419.99



NOW \$359.99

REMINGTON 304

ELECTRIC CASH REGISTER

fills the bill for busy retailers



- FAST CHANGE COMPUTATION
- HANDLES ALL FIVE BASIC RETAIL TRANSACTIONS
- TAMPER-PROOF LOCK
- RING-UP CAPACITY \$99,999.99
- TOTALING CAPACITY \$99,999.99

Color: **Beige**
Individually Boxed—
Shipping Weight: 47 lbs.

YOUR COST
\$287⁹⁰

Suggested List Price
\$42000

REMINGTON Line-A-Time

Line-A-Time Copyholder



MODEL
112
CARRIAGE
WIDTH
12"
RETAIL
PRICE
\$39.25

YOUR COST
\$19⁹⁵

SPERRY REMINGTON

821GT

This model is a high capability personal electronic calculator with 8 digit capacity and an accumulation memory.

The double length display system widens its capacity to read the result up to 16 digits and if you put the switch at "T" position, each result of any calculation is accumulated into the memory. It also can be used for handling scientific calculation involving the square roots.

Operation is the same as the written problem and it is operable on either DRY BATTERY or AC (with the AC Adapter) at user's option.

positive action keyboard
8-digit readout
16-digit capacity for +, -, ×, ÷
square root
floating decimal
add-subtract-multiply-divide
GT memory
constant × and ÷
handsome case
20-hour battery life
ac adapter—optional



YOUR COST
\$9⁹⁵

ADAPTOR \$4.95

SPERRY REMINGTON

CP-100 ELECTRONIC PRINTING CALCULATOR

AC-D/C BATTERY OPERATED
ELECTRONIC CALCULATOR

The new "COMPACT" Remington Calculator:

SIZE: 7" x 4½" x 2½"

WEIGHT: 2½ lbs.

EIGHT digits printer and display combination

Four functions, plus SQUARE ROOT

Full Access MEMORY

AC - DC Rechargeable (including charger)

Uses plain standard paper rolls for printing, prints horizontally, very accurately.

PRINTING

Automatic tape advance and LED display

Portable AC/DC Combination

Display and Printing

Digits display
Printing Calculator
Adds, Subtracts, Multiplies
Divides, with Auto Constant
Accumulation and Chain Operations
Small Fits in a brief case.
Can operate either on BATTERIES
DC current or Plug it in on AC.
A revolutionary unit...



YOUR COST
\$49⁵⁰

The guaranty is between
the manufacturer and the consumer.

REMINGTON® MODEL 103

HARD TO BEAT

Fast Addition
Direct Subtraction
Credit Balance
Sub-Total Bar
Large Total Bar
Non-Add Bar
Fast Multiplication
Adjustable Column Window
Spacing Knob
Electric Operation

And now consider the price...



Suggested Retail
\$159.50

SPECIAL \$79⁹⁵
YOUR COST

REMINGTON 612

ELECTRIC PORTABLE TYPEWRITER

with electric carriage return and 12" carriage

- SIX ELECTRIC REPEAT ACTIONS
- 88-CHARACTER KEYBOARD—11" PAPER CAPACITY
- KEY-SET TABULATION
- CHOICE OF TYPE STYLES: PICA-ELITE
- TOUCH AND COPY (IMPRINT) CONTROLS
- TWO-COLOR RIBBON (RED-BLACK)

Color: **Black and White**

Carrying Case: **Included**

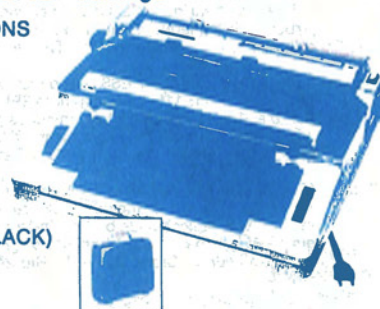
Individually Boxed—

Shipping Weight: **33 lbs.**

Suggested List Price

\$225.00

AVAILABLE IN SPANISH ONLY



YOUR COST \$169⁵⁰

VICTOR

MODEL 305

Functions

Sum, credit balance, non-add/date, repeat, product and quotient, mixed sequential, sequential, constant and grand total of product and quotient. Percent of a number, percent ratio, percent add-on, percent discount and percent of one number to another.

Entry: 12-digit entry capacity through standard 10-key pad with single and double cipher.

Snap Touch / Oversized Keys

Rollover Buffer / Keyboard Buffer

Capacity: 12 digits.

Decimal System 1,2,3,4 or 6 settings.

Constant System

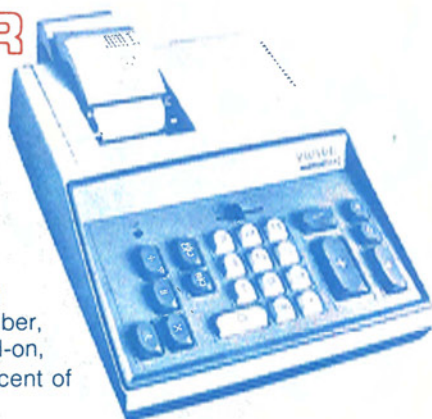
Repeat Addition/Subtraction: Single entries can be reentered by touching the addition or subtraction key.

Constant Multiplication/Division: First factor (multiplicand) in multiplication and second factor (divisor) in division is automatically retained for constant multiplication/division calculations.

Constant Accumulation / Clear Entry/Clear

Operating Controls

Off/on, add, subtract, subtotal, total, paper advance, 10-key pad with double cipher, clear entry/clear, non-add/date, multiply, divide, equals, percent and decimal format selector.



RETAIL \$149.50

YOUR COST

\$99⁹⁸

VICTOR 306

Functions

Sum, credit balance, non-add/date, repeat, product and quotient, mixed sequential, sequential, constant, automatic grand total of product and quotient, perpetual subtotal. Percent of a number, percent ratio, percent add-on, percent discount and percent of one number to another.

Input

Entry: 12-digit entry capacity through standard 10-key pad with single and double cipher.

Snap Touch / Oversized Keys / Keyboard Buffer

Rollover Buffer / Capacity: 12 digits. / Underflow / Overflow

Decimal System 0,1,2,3,4 or 6 settings.

Constant System Repeat Addition/Subtraction

Constant Multiplication/Division / Perpetual Subtotal

Total: Addition/Subtraction register can be totalled without affecting other registers.

Registers Keyboard, accumulator, working and constant.

Operating Controls

Off/On, add, subtract, subtotal, perpetual subtotal, total, paper advance, 10 key pad with double cipher, clear entry/clear, non-add/date, multiply, divide, equals, equals plus, equals minus, percent, decimal format selector and decimal rounding selector.



RETAIL \$169.50

YOUR COST

\$117⁹⁵

MODEL 331

ACCUMULATING MEMORY

12-DIGIT CAPACITY

AUTOMATIC REPEAT

ADDITION OR

SUBTRACTION—

Accomplished simply by repeatedly touching the add or subtract key.

GRAND TOTAL—

The accumulation of individual results (negative/positive) in addition, subtraction, mul-

tiplication and division in the accumulating memory register.

SEQUENTIAL MATH—Reduces key entries and simplifies the calculation of such problems as $2 \times 3 \times 4$.

PERCENTAGE KEY—Points off percentage answers

VARIABLE DECIMAL SELECTION—Allows choice of six

automatically different decimal settings, 0, 1, 2, 3, 4, and 6.

CONSTANT SWITCH- ROUNDING SELECTOR- NON-ADD KEY-

EXCHANGE EQUALS KEY- DOUBLE CIPHER KEY-

OVERSIZED ADD & SUBTRACT KEYS- ADD-MODE SELECTOR-

INDICATOR LIGHTS- MODERN STYLING-

AUTOMATIC PAPER ADVANCE-



RETAIL \$249.00

YOUR COST

\$169⁹⁵

MODEL 332PD

12 Digit

PRINTER/DISPLAY

with MEMORY

RETAIL \$299.00

YOUR COST

\$199⁹⁵



ACCUMULATING MEMORY—Stores any calculated result for use when needed.
12-DIGIT CAPACITY—Solves a wider range of calculating problems with added accuracy and convenience.
LARGE DISPLAY—Green, eye-ease fluorescent display with leading zero suppression.
TWO COLOR RIBBON—Negative numbers printed in red; positive numbers printed in black.
NON PRINT MODE—Suppresses printing of entries and results when only display is desired.
CONSTANT MULTIPLICATION—The first factor of any multiplication problem automatically is retained as a constant which then can be multiplied.
CONSTANT DIVISION—The second factor of any division problem (divisor) automatically is retained as a constant which then can be divided into other amounts.
ROUND OFF SWITCH—When set, automatically rounds off any result ending in 5 or more. When off, result will be truncated to your decimal setting.
VARIABLE DECIMAL SELECTION—Allows choice of four different decimal settings; 0, 2, 4 and 6.

PERCENT KEY—Shortcuts percentage calculations in multiplication and division, reduces chance of error.
ADD MODE—Position of decimal selection switch sets decimal automatically when add mode key is engaged.
NON-ADD KEY—Causes an indexed number to be printed with an identifying symbol for non-addition of such items as dates and invoice numbers.
DOUBLE CIPHER KEY—Allows entry of double zero in one step.
ITEM COUNT—Prints and displays exact number of addition or subtraction entries up to 999.
MEMORY INDICATION—Display signals memory in use.
OVERFLOW PROTECTION—Display indicates when capacity is exceeded, but accumulated result is retained in memory.
AUTOMATIC REPEAT PAPER FEED—Paper advances one line each time key is depressed. When key is held down, paper continues to advance.
CLEAR KEYS—"CE" key clears entry; "C" key clears register.
MODERN STYLING—High impact Noryl® case designed for heavy duty desktop service.
LARGE KEYBOARD—Keys respond to slightest touch, color-coded for immediate recognition of function.

ONE YEAR GUARANTY By Victor on all electronic Calculators on all parts and labor, providing repair work is performed in an authorized service center under normal use.

VICTOR MODEL 210



YOUR COST
\$114.95

RETAIL
\$159.00

FUNCTIONS

Addition, subtraction, multiplication, division, square root, percent, item count, change sign, exchange, two memories.

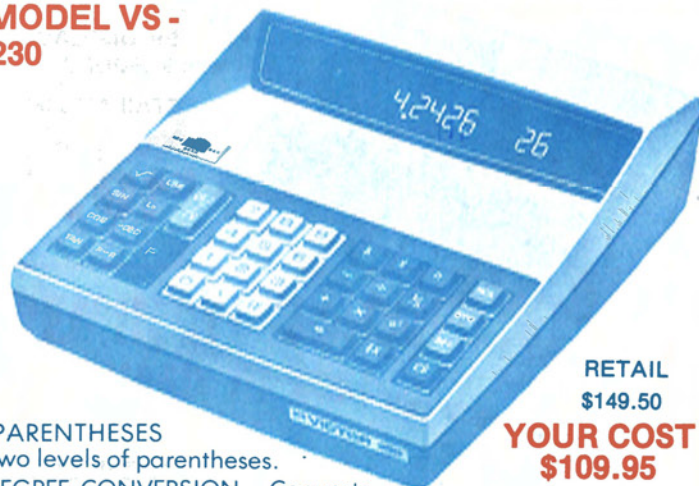
Two Memories: Entries and results can be accumulated into two independent registers without affecting standard addition, subtraction, multiplication and division operations.

Seven Access Keys

Special Function Selector: Five position switch provides automatic summation operations:

($\sum_{n=1}^x$) position conditions Plus (+) key to square and accumulate entries in Memory I, sum entries in Memory II, and count entries in the Item Count (N) register for figuring mean, standard deviation and other statistical applications.

MODEL VS-230



RETAIL
\$149.50

YOUR COST
\$109.95

PARENTHESES

two levels of parentheses.

DEGREE CONVERSION

Converts Degrees-Minutes-Seconds to Decimal Degrees and vice-versa.

COORDINATE CONVERSION

Converts Polar to Rectangular Coordinates and vice-versa.

EXCHANGE FUNCTION

PI KEY- CHANGES SIGN- POWER RAISING—Raises the entered value, a , to an x power.

SQUARING- EXPONENTIAL—Raises the value of e to an x power. Raises 10 to an x power.

SQUARE ROOT- TRIGONOMETRIC FUNCTIONS-

DEGREE/GRAD/RADIAN- LOGARITHMIC FUNCTIONS-

ARITHMETIC FUNCTIONS- LARGE 10-DIGIT DISPLAY-

SCIENTIFIC NOTATION- ALGEBRAIC LOGIC- THREE-KEY

MEMORY- AUTOMATIC SEQUENTIAL MODE- DUAL PURPOSE

CLEAR KEY- FULL FLOATING DECIMAL-OVERFLOW INDICATION-

NEGATIVE INDICATION- LARGE KEYBOARD-

VICTOR MODEL 204



YOUR COST
\$69.95

FUNCTIONS Addition, subtraction, multiplication, division, percent, item count, exchange, one memory. **Oversized Keys Rollover Buffer. Capacity:** 12 digits plus sign and punctuation. **Overflow One Memory Six Access Keys**

ORDER SPECIFICATIONS

Twelve digit desktop electronic display calculator with arithmetic logic for addition, subtraction, repeat, and credit balance, algebraic logic for multiplication, division, sequential, and constant, one independent memory with six access keys, floating decimal input and selectable round-off, round-up, or truncate fixed decimal output at 0, 1, 2, 3, 4, or 6 places, floating output, and monetary decimal entry, special functions for automatic percent with add-on and discount, item count, exchange, clear-all, and clear entry/clear, oversize plus, minus, cipher, and decimal keys, indications for power on, minus, memory loaded, overflow/error, keyboard rollover buffer, fluorescent eye-ease display, and compact design.

MODEL 300

RETAIL \$299.50

YOUR COST
\$169.50



Functions

Sum, credit balance, subtotal, repeat, group and grand total, simultaneous accumulation, product and quotient. Mixed sequential and sequential, constant and constant accumulation. Percent of a number, percent add on, percent discount, percent change and percent of one number to another.

Input

Entry: 12-digit entry capacity through standard 10-key pad with single and double cipher.

Tactile Touch: Keys "click" to indicate entry registration.

Oversized Keys: Add, subtract and 0 are enlarged to facilitate touch operation.

Keyboard Buffer: Input to printer is automatically paced to operator speed.

Rollover Buffer: Key rollover assures registration and processing of numerical entries.

Memory System **Decimal System** **Registers**
Operating Controls **Clearing System** **Constant System**

SPECIAL PRICES **Model 302PD** **\$179.95**
Few Victor left **Model 311** **\$149.95**
Model 302 **\$169.50**

MODEL	SPECIFICATIONS	Retail	Your Cost
302PD	PRINTING and DISPLAY 12 digit combination, four key memory system, large display, 2 color ribbon, non print mode, constants, round off switch, percent, Add Mode, item counter, large keyboard easy to use, single and double zero keys, buffered keyboard, great unit.	299.95	199.95
311	Electronic Printer, 12 digits, Grand Total accumulation four key memory, constant, variable decimal selection, exchange equals key, double zero key, oversize keyboard, Add Mode, and many more features	249.50	159.95
302	Electronic printer 12 digit, variable decimal selection, four key memory, auto constant, add mode, percent key, round off switch, non add key and many other features	299.50	169.95
306	Electronic PRINTER 12 digit capacity, oversize keys, buffered keyboard, snap touch short stroke key travel ensures positive entry, Sum, credit balance, non add/date, repeat product and quotients, mixed sequential, sequential, constant automatic Grand Total, perpetual subtotal, percent of a number, percent ratio, percent add on, percent discount and percent of one number to another.	169.50	119.95
305	Electronic printer 12 digit, sum, credit balance, non add/date, repeat, product and quotient, mixed sequential, sequential, constant and grand total of product and quotient. Percent of a number, percent ratio, percent add on, percent discount and percent of one number to another.	149.50	99.98
210	14 DIGITS DISPLAY Calculator, addition, subtraction, multiplication, division, square root, percent, item counter, change sign, exchange and TWO MEMORIES. . . Desk top, Oversize keys, fluorescent display, blue numerals on black back ground, 14 digits plus sign and punctuation, underflow, Overflow, decimal rounding selector, seven access keys, great.	159.00	114.95
204	Desk top 12 digit DISPLAY, for basic functions plus percent, item counter, exchange key and full four key MEMORY. Oversize keys, rollover buffer, fluorescent display blue on black background, decimal selector AC only	99.50	69.95
230	Desk display Scientific calculator, large 10 digit display, scientific notation, algebraic logic, auto sequential, three key memory, parentheses, coordinate conversion, change sign, exchange functions, Pi key, power raising exponential, squaring, square root, trigonometric functions, degree/grad/radian, logarithmic functions, arithmetic functions	149.50	109.95
VS 107	Hand held scientific, 8 digits, scientific notations converts from degrees, minutes, seconds to decimal degrees and vice versa, change sign, exchange functions, power raising etc. incl. charger.	69.95	54.95
106	Hand held 8 digit zero suppression, change sign exchange function, power raising, exponential, reciprocal, square root, trig functions, degree/radian, log functions, etc. Includes Charger.	49.95	39.95
104	Hand held, 8 digits, squaring, percentage, square root, reciprocal, arithmetic functions and logic, four key memory summation switch etc. . . Includes charger.	49.95	35.95
E95	Hand held 8 digits four functions, with ac adapter very bright LED display. Including AC Adapter	29.95	12.95
7-83-54	Electric ADDING MACHINE ten key, list 8 totals 9 columns \$9,999,999.99 with credit balance, Champion model, great seller	99.95	74.95

All above units are fully guaranteed by Victor Comptometer Corporation servicing centers. The Majority of the above equipment is guaranteed for the period of one year on all parts and all labor.

VICTOR VS - 107

SCIENTIFIC NOTATION
ALGEBRAIC LOGIC
THREE-KEY MEMORY
AUTOMATIC SEQUENTIAL MODE
DUAL PURPOSE CLEAR KEY
PARENTHESES
DEGREE CONVERSION
COORDINATE CONVERSION
CHANGE SIGN
EXCHANGE FUNCTION PI KEY
POWER RAISING EXPONENTIAL
SQUARING SQUARE ROOT
LARGE 10-DIGIT DISPLAY—
INCLUDING CHARGER RETAIL

\$69.95

YOUR COST \$54.95



VICTOR VS - 106

LARGE 8-DIGIT DISPLAY
ALGEBRAIC LOGIC PI KEY
FOUR-KEY MEMORY EXPONENTIAL
AUTOMATIC SEQUENTIAL MODE
DUAL PURPOSE CLEAR KEY
FULL FLOATING DECIMAL
OVERFLOW PROTECTION
CHANGE SIGN POWER RAISING
EXCHANGE FUNCTION
RECIPROCAL SQUARE ROOT
TRIGONOMETRIC FUNCTIONS
DEGREE/RADIAN

YOUR COST \$39.95

**INCLUDING CHARGER
RETAIL \$49.95**



VICTOR VS - 104

LARGE 8-DIGIT DISPLAY
ARITHMETIC LOGIC
FOUR-KEY MEMORY
SUMMATION SWITCH
FLEXIBLE CLEARING
FULL FLOATING DECIMAL
OVERFLOW PROTECTION
SQUARING PERCENTAGE
SQUARE ROOT RECIPROCAL
ARITHMETIC FUNCTIONS
NEGATIVE INDICATION
LARGE KEYBOARD

**INCLUDING CHARGER
RETAIL \$49.95**

YOUR COST \$35.95



VICTOR 95

- Reliable microminiature LSI electronics
- Instantly adds, subtracts, multiplies, divides
- Constant division and multiplication
- True credit balance (negative totals)
- Do chain and mixed calculations with no re-entering of figures
- Sharp, readable 8-digit, LED display of entries and answers.
- Full floating decimal position.
- Big, easy-touch keys.

INCLUDING CHARGER

RETAIL \$39.95

YOUR COST \$12.95



ADVERSARY TV GAME

The New Video Game
From National Semiconductor



IN FULL COLOR
OR BLACK AND WHITE
WITH SOUND

SPECIFICATIONS

- Operates on 107-127 volts AC at 60 cycles.
- Comes with 6 foot power cord.
- Game comes with game box and 2 individual controllers.
- Game box connects to 300 ohm VHF antenna terminal of standard set.
- Comes with 3 feet of shielded 75 ohm to 300 ohm game-antenna balun cable.
- Operates on Channel 3 or 4 on a standard TV set—Game box can be set by you to one of these two channels not carrying a regular television station's signal.
- Comes with 2—10 foot controller cables.

DIMENSIONS

Game Box— Length—9 in. or 22.86 cm.
Width—5½ in. or 13.97 cm.
Depth—2½ in. or 6.35 cm.

Controller (2): Length—5½ in. or 13.97 cm.
Width—2½ in. or 6.35 cm.
Depth—2 in. or 5.08 cm.

Total Weight of Game—3½ lbs. or 1.59 Kg.

- Choice of 3 Games—
Tennis played by two players on green court;
Ice Hockey, played by one or two players on blue ice;
Handball, played by two players on brown court.
- All Games are in Full Color.
- Realistic Sound Effects—When ball or puck strikes a surface, realistic sound is heard through TV speaker.
- Choice of 3 Individually Selectable Paddle Sizes—Add excitement and can offer handicap to more experienced
- Ball is served through paddle—Serves are controlled by players, not random.
- Able to add "English" or Spin Effect on the Ball—After serving, ball increases speed after 4 paddle hits to further add to excitement.

- Scoring Off during play and Automatically displayed in large easy to read numbers on TV screen after each point is scored.
- Remote Scoring Reset—Game can be reset to zero from individual controllers.
- All Games end at 15 points.
- Individual Controllers—Means you and your opponent can sit in your favorite chairs and compete.
- Designed for Permanent Installation—Single switch returns TV to standard operation.



TENNIS



ICE HOCKEY



HANDBALL

YOUR COST
\$74.95 Retail \$99.95



**"NATIONAL" MODEL 7100
CASSETTE CALCULATOR
CAN BE PROGRAMMED
FROM 240 STEPS TO 4240
STEPS IN CARTRIDGE**

RETAIL:

Model 7100 \$395.00

EE Cartridge \$35.00

Blank Cartridge \$19.95

**Model 7100
YOUR COST:**
\$299.95

EE Cartridge \$29.95
Blank Cartridge \$17.95

National Semiconductor applies complete semiconductor technology to the programmable calculator.

The new National Semiconductor Model 7100 incorporates three different types of semiconductor program memory. The above product will be available After January, 1977 Contact Us

1. A 240 step non-volatile program memory.

Turn power off, calculator retains data and program. This mainframe program memory operates independently from File or Library Cartridge.

2. File Cartridge. Semiconductors housed in a tiny cartridge—insert the File Cartridge into the calculator, depress a key and record the 240 step mainframe program onto the cartridge for use at a later date... or

Insert File Cartridge on which you previously stored a 240 step program and used it as a subroutine for a second 240 step program in the mainframe program memory = a total program step capability of 480

3. Library Cartridge. A factory programmed semiconductor cartridge inserted into the calculator puts 4,000 steps of programming at your command instantaneously. Use these factory recorded programs as subroutines to the 240 step program in the mainframe program memory = a total program step capacity of 4,240

OTHER PROGRAMMING FEATURES

- Decision Making: • Eight Flags:
- Exclusive Semiconductor Cartridges for Reliability: • Symbolic Labeling:
- 32 Non-Volatile Data Storage Memories:
- Decrement And Branch On Zero:
- Debugging Features: • 66 Keyboard Functions:

National Semiconductor

RETAIL \$84.95
YOUR COST
\$57.95



MODEL 4640

Scientific notation with 10-digit mantissa and 2-digit exponent LED display, 3 accumulating memories, log and trig functions, RPN logic, statistical functions, functions of X, 12 metric conversions (Includes rechargeable batteries, AC charger/adaptor and carrying case).

RETAIL \$64.95
YOUR COST
\$44.95



MODEL 4650

Algebraic logic, scientific notation with 8-digit mantissa and 2-digit exponent LED display, 2-level parentheses, accumulating memory, log and trig functions, rectangular/polar conversion, degree/radian conversion, functions of X. (Includes rechargeable batteries, AC charger/adaptor and carrying case).

RETAIL \$29.95
YOUR COST
\$24.95



MODEL 6010 INTERNATIONAL CONVERTOR

8-digit LED display, commercial logic calculator with 40 pre-programmed weight and measurement conversions. Fully accumulating memory with M+ and =, 'live' per cent key with add-on or discount and net, square and cubic measurement conversions, automatic constants, automatic roundoff to two decimal places, low battery indicator. (Includes 9V battery; carrying case not included).

RETAIL \$84.95
YOUR COST
\$57.95



MODEL 4660

Scientific notation with 10-digit mantissa and 2-digit exponent LED display, 3 accumulating memories, log and trig functions, algebraic logic, 2-level parentheses, rectangular/polar conversion, degrees, minutes and seconds conversion, functions of X, Pi, statistical functions, metric conversions. (Includes rechargeable batteries, AC charger/adaptor and carrying case).

MODEL 6020 "THE FINANCIER"

RETAIL \$34.95
YOUR COST
\$28.95



8-digit LED display, commercial logic calculator with preprogrammed business/financial functions: present or future value or payment on loans, amount and per cent change, sum-of-digits depreciation. Fully accumulating memory with M+ and =, 'live' per cent key with add-on or discount, automatic calculation of powers and roots, automatic roundoff, low battery indicator. (Includes 9V battery; carrying case not included).

MODEL 6025 "FINANCIER PROGRAMMABLE" 100 STEP PROGRAM

RETAIL \$74.95
YOUR COST
\$54.95



Same functions as 6020 plus 100-step 'learn mode' keyboard programming capability. (Includes three AA Ni-Cad rechargeable batteries, AC charger/adaptor and vinyl carrying case.)

MODEL 6030 "THE STATISTICIAN"

RETAIL \$34.95
YOUR COST
\$28.95



8-digit LED display, commercial logic calculator with preprogrammed statistical functions: mean and standard deviation, coefficient of correlation and regression line, y-intercept, slope, frequency key for entering grouped data. Fully accumulating memory with M+ and =, 'live' per cent key with add-on or discount and net; square, square root and change sign keys, low battery indicator. (Includes 9V battery; carrying case not included.)

MODEL 6035 STATISTICIAN - PROGRAMMABLE 100 STEP PROGRAM

RETAIL \$74.95
YOUR COST
\$54.95



Some functions as 6030 plus 100-step 'learn mode' keyboard programming capability. (Includes three AA Ni Cad rechargeable batteries, AC charger/adaptor and vinyl carrying case.)

MODEL 4520 "THE SCIENTIST"

RETAIL \$39.95
YOUR COST
\$33.95



8-digit LED display slide rule with arithmetic, trigonometric and logarithmic functions, RPN logic with 3-level stack, floating decimal, fully accumulating memory with M+, M-, M+, X2, degrees/radians conversions, Pi, square root, reciprocal, exchange and change sign keys. (Includes three AA NiCad rechargeable batteries and AC charger/adaptor.)

RETAIL \$74.95
YOUR COST
\$54.95



4525 PROGRAMMABLE SCIENTIST

Same functions as 5420 plus 100-step 'learn mode' keyboard programming capability. (Includes three AA NiCad rechargeable batteries and AC charger/adaptor; carrying case.)

MODEL 4510 "THE MATHEMATICIAN"

RETAIL \$24.95
YOUR COST
\$19.95



5-digit mantissa and 2-digit exponent LED display, 8 digits for floating point, 2 levels parentheses, algebraic logic, log and trig functions, degree/radian conversion, functions of X, Pi, low battery indicator. (Includes 9 V battery; carrying case not included.)

MODEL 4515 or 4615 "MATHEMATICIAN PROGRAMMABLE" 100 STEP PROGRAM

RETAIL \$69.95
YOUR COST
\$52.95



8-digit LED display, log and trig functions, accumulating memory, RPN logic, floating decimal, radian-degree conversion, square root, 1/x, x2, Pi 100 steps of programming. (Includes rechargeable batteries, AC charger/adaptor; carrying case not included.)

SERVICE CENTERS

Acro-Print

88 St. Mary Street
Raleigh N.C. 27605
(919) 833-6185

Addmaster (Cashmaster)
416 Junipero Serra Drive
San Gabriel, Calif. 91776
(213) 285-1121

RC Allen
Contact your local service

Amana Microwave Oven
Contact the closest service center

APF Electronics
375 Park Avenue
New York, N.Y. 10022
(212) 758-7550

Canon Electronics
123 Paulino Avenue East
Costa Mesa, Calif. 92626
or the closest Service Station

Citizens
1710 22nd Street
Santa Monica, Calif. 90404

Corvus
13030 Branch View Lane
Dallas, Texas 75234

Craig Corp.
Compton, Calif.
(213) 537-1233

Fairchild and TimeBand
4005 Miranda Avenue
Palo Alto, Calif. 94304
(415) 493-3100

Fanon/Courier
990 So. Fair Oaks Ave.
Pasadena, Calif. 91105
(213) 799-9164

First Alert
P.O. Box 471
Aurora, Illinois 60507
(312) 851-7330

Hitech
401 W. Artesia
Compton, Calif. 90220
(213) 537-8383

IBM Typewriters
Contact the closest IBM Service Center

Kingspoint Corp.
104 Harbor Drive
Jersey City, N.J. 07305

Litronix Corp.
19000 Homestead Road
Cupertino, Calif. 95014
(408) 257-7910

Litton Microwave Ovens
Contact your closest Service Center

Lloyds
190 Raritan Way
Edison, N.J. 08817
(201) 225-2030

Lloyds Electronics
18801 So. Susana Road
Compton, Calif. 90221
(213) 537-3720

Microma
10260 Rubb Road
Cupertino, Calif. 95014

3M
107 W. Artesia Blvd.
Compton, Calif. 90220
or the nearest 3M service center

National Semi Conductor
1177 Kern Avenue
Sunnyvale, Calif. 94086

Novus
National Semi Conductor
N.C.P.S. P.O. Box 10,100
Sunnyvale, California 94086

Novus
Semi Conductor Co.
N.C.P.S. Commerce Park,
Danbury, Connecticut 06810

Novus
National Semi Conductor Co.
P.O. Box 1000
West Jordan, Utah 84084

Olivetti
1300 W. 8th Street
Los Angeles, Calif. 90017
or the closest Olivetti Center

Pace CB Radios
24049 So. Frampton Ave.
Harbor City, Calif. 90710
(213) 325-1290

Panasonic Corp.
2440 E. 38th Street
Los Angeles, Calif. 90058
(213) 655-1111

Paymaster
2575 Chantilly Dr. N.E.
Atlanta, Georgia 30324
(414) 321-6000

Phone Mate
325 Maple Avenue
Torrance, Calif. 90503
(213) 320-9800 or
(800) 421-1246

Remington Rand
Sperry Univac
CED Field Services
1051 So. Main Street
Elmira, N.Y. 14904

Rockwell International
6001 Threadgill Avenue
El Paso, Texas 79924

Royal Typewriter
2828 Beverly Blvd.
Los Angeles, Calif. 90057
or closest service center

Sanyo Electronics
1200 W. Artesia Blvd.
Compton, Calif.
(213) 537-5830

Sharp Electronics
21580 Wilmington Avenue
Long Beach, Calif. 90810
(213) 830-4470

Smith Corona
15315 Texaco Ave.
Paramount, Calif. 90723

Sony Corp.
2865 W. Olympic Blvd.
Los Angeles, Calif. 90052
(213) 381-3796

Texas Instruments
2305 University Drive
Lubbock, Texas 79415

UNITREX
612 W. Walnut Street
Compton, Calif. 90220
(213) 637-1905

Unitrex
Richmond Heights,
Missouri 63117 (314) 781-496

Victor Comptometer
2580 W. Olympic Blvd.
Los Angeles, Calif. 90006
(213) 385-0261 or
contact the closest Victor service center

Westclox Corp. General Time
5404 Wilshire Blvd.
Los Angeles, California 90036
(213) 936-5174

Windert Watch Co.
WVVC Customer Service
P.O. Box 2318
Los Angeles, Calif. 90051

COMMODORE
901 California Avenue
Palo Alto, California 94304
(415) 326-4000 Telex 345569
Walter Maulsby Service Manage
Jack Tremiel, President

MODEL NO.	SHARP	MODEL DESCRIPTION	MODEL NO.	MODEL DESCRIPTION
EL-8116		MEMORY/SQUARE ROOT CALCULATOR <ul style="list-style-type: none"> Rechargeable capability. 8-digit capacity. Direct access memory. Chain multiplication & division. %-key/add-on & discount calculation. Square root calculation. Constant multiplication & division. Convenient clear entry function. Power: Two (2) penlight batteries included. AC adapter/charger & Ni-Cad rechargeable batteries optional. Size: 13/16" x 3" x 5-1/8" YOUR COST \$17.95 Retail \$19.95	EL-201	 8-DIGIT CALCULATOR WITH EASY TO USE TOTAL MEMORY, SQUARE ROOT & PERCENT <ul style="list-style-type: none"> ITRON display. Total memory. %-key/add-on & discount calculation. Square root function. Convenient clear/clear entry key. Power: Two (2) penlight batteries included. AC adapter optional. Size: 7/8" x 2-15/16" x 4-3/4" YOUR COST \$11.50 Retail \$12.95
EL-8118		8-DIGIT CAPACITY, MEMORY & MARK-UP CALCULATION <ul style="list-style-type: none"> %-change calculation. Floating decimal with fixed & floating out (A, O, 2, 4, F). Automatic mark-up/down calculation. %-key/add-on & discount calculation. Power calculation. Reciprocal calculation. Square root calculation. Rechargeable capability. Convenient direct access memory. Power: Two (2) penlight batteries included. AC adapter/charger & rechargeable Ni-Cad batteries opt. Size: 7/8" x 3-5/32" x 5-1/8" YOUR COST \$17.95 Retail \$19.95	CT-405	 EXECUTIVE DESK SET WITH DIGITAL CLOCK & PEN HOLDER <ul style="list-style-type: none"> Liquid crystal digital display. Quartz clock. Time displayed in 12-hour cycles. Second count-off is given by blinking of the colon (:). Battery driven for two year non-stop operation. Accurate to ± 30-seconds per month. Elegant woodgrained finish. Power: Four (4) size "H" batteries included. Size: 2"H x 5-5/16"W x 3-1/8"D YOUR COST \$34.95 Retail 39.95
EL-8113		BASIC SCIENTIFIC CALCULATOR <ul style="list-style-type: none"> 8-digit capacity. Memory & reciprocal calculation. 12-scientific functions. Degree to decimal degree conversion. Sign change key. Square root calculation. Log-Trig-Exponential functions. Y to X power calculation. Power: Four (4) penlight batteries included. AC adapter/charger & Ni-Cad batteries optional. Size: 1" x 3-1/16" x 5-1/4" YOUR COST \$26.95 Retail \$29.95	CT-406	 EXECUTIVE DESK SET WITH DIGITAL CLOCK & PEN HOLDER <ul style="list-style-type: none"> Liquid crystal digital display. Quartz clock. Time displayed in 12-hour cycles. Second count-off is given by blinking of the colon (:). Battery driven for two year non-stop operation. Accurate to ± 30-seconds per month. Finely sculpted metallic & woodgrained finish. Power: Four (4) size "H" batteries included. Size: 2-15/16"H x 5-5/16"W x 3-1/16"D YOUR COST \$43.95 Retail \$49.95
EL-8115		8-DIGIT SOPHISTICATED SCIENTIFIC CALCULATOR <ul style="list-style-type: none"> 16-scientific functions. 8+2 digit notation. Y to X power calculation. *Display reverse key. Log, In, Hyperbolic & Exponential functions. Direct access memory. Degree/radian selector. Square and square root keys. Power: Four (4) penlight batteries included. AC adapter/charger included, rechargeable Ni-Cad batteries optional. Size: 1-1/16" x 3-1/4" x 6" YOUR COST \$36.95 Retail 39.95	EL-8009	 COMPACT FOLDING CALCULATOR <ul style="list-style-type: none"> 8-digit liquid crystal display. Compact design. Convenient dual clear/clear entry key. Reciprocal calculation. Power calculation. Add-on & discount calculation. Constant multiplication & division. Power: Two (2) silver oxide batteries included. Dimensions: <ul style="list-style-type: none"> Folded 3/4" (thickness) x 3"(W) x 2-3/4"(D) Opened 3/8" (thickness) x 3"(W) x 5-1/2"(D) Weight: Approximately 1/4-lb. with batteries. YOUR COST \$35.95 Retail \$39.95
EL-1100S		EXTENDED SCIENTIFIC CALCULATOR <ul style="list-style-type: none"> 17-scientific functions. 10+2 digit capacity. Scientific notation up to 10 ± 99 Log, In & Exponential functions. Separate display for scientific notation. Direct access memory. Constant +, -, X, \div Sum/Mean/Standard deviation key. Power: Four (4) Ni-Cad rechargeable batteries incl. AC adapter/charger included. Size: 1-7/16" x 3-1/2" x 5-7/8" YOUR COST \$46.95 Retail \$49.95	EL-8020	 THIN-MAN INTERNATIONAL CALCULATOR <ul style="list-style-type: none"> 8-digit liquid crystal display. Ultra-Thin—only 7mm. Square root calculation. %-key/add-on & discount calculation. Constant multiplication & division. Convenient clear entry key. Reciprocal calculation. Power: Built-in rechargeable Ni-Cad batteries. AC Adapter/charger & notebook case included. Size: 9/32" (thickness) x 5-5/8"(W) x 4-5/16"(D) YOUR COST \$26.95 Retail \$29.95
EL-8051		HAND HELD PRINTER/DISPLAY CALCULATOR <ul style="list-style-type: none"> 8-digit capacity. Selection of print/display mode, or display only mode. Fast print (maximum 5-lines per second). Complete floating decimal point positioning. %-key/add-on & discount calculation. Independent print key. Power: Built-in rechargeable Ni-Cad batteries included. AC adapter/charger included. Size: 1-13/16" x 3-15/16" x 7-1/8" YOUR COST \$84.95 Retail \$99.95	EL-8010/8015	 THIN-MAN CALCULATOR <ul style="list-style-type: none"> 8-digit liquid crystal display. Thin-slim personal calculator. Constant multiplication & division. %-key/add-on & discount calculation. Sign change key. Reciprocal calculation. Power: Rechargeable Ni-Cad batteries. Dimensions: 3/8" (thickness) x 3"(W) x 5"(D) Weight: Approximately 1/4-lb. (without pocket secretary carrying case). Accessories: Pocket notebook case & AC adapter/charger incl. YOUR COST \$26.95 Retail \$29.95
EL-8151		HAND HELD PRINTER/DISPLAY CALCULATOR WITH MEMORY <ul style="list-style-type: none"> 8-digit capacity. Easy to use total memory function. Selection of print/display mode, or display only mode. Fast print (maximum 5-lines per second). Complete floating decimal point positioning. %-key/add-on & discount calculation. Independent print key. Power: Built-in rechargeable Ni-Cad batteries included. AC adapter/charger included. Size: 1-13/16" x 3-15/16" x 7-1/8" YOUR COST 99.95 Retail \$119.95	EL-8110	 THIN-MAN EXECUTIVE CALCULATOR <ul style="list-style-type: none"> 8-digit liquid crystal display. Gold toned aluminum case. Built-in rechargeability. %-key/add-on & discount calculation. Convenient direct access memory. Square root calculation. Power: Two (2) rechargeable Ni-Cad batteries included. Dimensions: 3/8" (thickness) x 3"(W) x 5"(D) Weight: Approximately 1/4-lb. (without pocket secretary carrying case). Accessories: AC adapter/charger & notebook case incl. YOUR COST \$35.95 Retail 39.95
EL-1051		DESK TOP PRINTER WITH HIGH SPEED PRINTING MECHANISM <ul style="list-style-type: none"> 10-digit impact printer. Convenient grand total memory. %-key/add-on & discount calculation. Add-mode and decimal selector (0, 2, 4). 5-functions. Prints negatives in RED. High speed printing mechanism. Accepts standard adding machine tape (2 1/4"). Power: AC 120V Size: 2-3/8" x 8-1/2" x 10-1/8" YOUR COST \$109.95 Retail \$129.95	EL-8016R	 SIX (6) FUNCTION-PERCENT, SQUARE ROOT CALCULATOR <ul style="list-style-type: none"> Rechargeable capability. 8-digit capacity. %-key/add-on & discount calculation. Convenient clear entry key. Square root calculation. Constant multiplication & division. Power: Two (2) penlight batteries included. AC adapter/charger & Ni-Cad rechargeable batteries optional. Size: 13/16" x 3" x 5-1/8" YOUR COST \$13.95 Retail \$14.95
EL-104		8-DIGIT POCKET CALCULATOR <ul style="list-style-type: none"> 8-digit LED display. %-key/add-on & discount calculation. Square root function. Convenient clear entry key. Full floating decimal point. Overflow error check device. Power: One (1) 9-volt battery included. AC adapter optional. Size: 7/8" x 2-15/16" x 4-9/16" YOUR COST \$8.95 Retail \$9.95	EL-8018	 SIX (6) FUNCTION-PERCENT, SQUARE ROOT CALCULATOR <ul style="list-style-type: none"> Rechargeable capability. Total memory. 8-digit capacity. Power calculation. Constant multiplication & division. %-key/add-on & discount calculation. Square root calculation. Convenient clear entry function. Power: Two (2) penlight batteries included. AC adapter/charger & Ni-Cad rechargeable batteries opt. Size: 7/8" x 2-7/8" x 5-1/8" YOUR COST \$13.95 Retail \$14.95

AC ADAPTERS
\$4.95
NI-CAD BATTERY KIT
\$6.95
Paper Rolls
[5 rolls pack]
For 8051 & 8151
Your Cost \$3.95

MARK 50

- * 9 Digit Fluorescent Display - approximately 1 1/4" high
- * 19 Keys - all keys double function except shift function key
- * Memory Indicator
- * Function Key In-Use Indicator
- * Operates In Degrees Or Radians
- * Scientific Notation
- * 5 Digit Mantissa, 2 Digit Sign, 2 Digit Exponent
- * Conv Key (converts display from scientific notation to floating point answer or vice versa)
- * Floating Decimal
- * Natural Log
- * Trigonometric Functions - sine, cosine, tangent, arc sine, arc cosine, arc tangent
- * E^x
- * Full Accumulating 4 Key Memory
- * Vx , $1/x$
- * Memory \leftrightarrow Display Exchange
- * Exponent Entry Key
- * 9 Volt Battery
- * Dimensions: 3" wide x 6" high x 1" deep
- * OPTIONS:
- AC Adaptor
- Carrying Case

YOUR COST
\$18⁹⁵

APF ELECTRONICS, INC.**MARK 40**

- ** 5 Function Electronic Pocket Calculator
- ** Addition, Subtraction, Multiplication, Division and Percentage
- ** Algebraic Logic
- ** Chain or Mixed Calculations
- ** Automatic Constant For Addition, Subtraction, Multiplication and Division
- ** Floating Decimal Point
- ** Minus Indicator For True Credit Balance
- ** Automatic Power On Clear
- ** Automatic Suppression of Leading Zeros
- ** 8 Digit LED Display
- ** Dimensions: L 4-1/2" x H 1 1/4" x W 2-3/4"

\$8⁹⁵
YOUR COST

APF MARK 61 EXECUTIVE

- Extra Thin Line
- 5 Key Full Memory
- Percent - Square Root
- Large Fluorescent Display
- Including Ni-Cad Batteries
- Charger
- Packed in Deluxe Jewelry Box
- A Great Gift



90 DAYS WARRANTY BY APF

YOUR COST **\$24⁹⁵**

RETAIL \$39.90

MARK 90**SPECIFICATIONS**

- 12 DIGIT DISPLAY - Display entries or results in 3 modes, scientific, fixed point or engineering.
- PROGRAMMABLE - 72 Keystroke program storage
- TRIG FUNCTIONS - Calculates in radians or degrees or grads
- HYPERBOLIC FUNCTIONS
- Ln, log, e^x , 10^x
- POWERS y^x , Roots $\sqrt[y]{x}$
- FUNCTIONS OF X - $1/x$, \sqrt{x}
- LINEAR REGRESSION, TREND ANALYSIS, SLOPE AND INTERCEPT
- STATISTICAL: Σ , Σ^2 , average, standard deviation, variance, permutations, combinations
- PERCENTAGE CALCULATIONS - add-on discount yield Δ percentage
- \pm AND CHANGE SIGN KEY
- 10 MEMORIES - 7 functions - M+, M-, MR, MX, M-, STORE, MEX
- DEGREES DEGREE - MINUTE, SECONDS CONVERSION
- RADIAN DEGREE CONVERSION
- POLAR RECTANGULAR CONVERSION
- 8 METRIC CONVERSIONS
- SPHERICAL CARTESIAN CONVERSIONS

RETAIL \$89.50

YOUR COST **\$59⁹⁵** Including Charger

APF 12 Digit Memory Desktop Printing Calculator

12 digit operation, 12 digits print plus decimal point, comma and two symbols.

Direct-in grand total memory accumulation.

Selectable mode of percent.

Constant calculations, repeats add and subtracts.

Discount/add-on sequences.

Selectable stored constant multiplicand and divisor.

Subtotal and non-add print key.

Floating and fixed decimal system.

5/4 round-off, truncate for multiplication and division.

Add mode switch permits automatic entry of decimal point at any selected position.

Eight key input buffering.

One line print buffering on output. Printer motor has automatic start and stop.

Printer speed, 3 lines per second. Negative/minus numbers print in red.

Indication lamps: Memory Grand Total, Error and Power.

YOUR COST
\$79⁹⁵

RETAIL \$129.95

DISPLAY - PRINTING / 2 FULL MEMORIES

Print: 12 Digits with decimal point, minus sign and 2 columns of symbols.

Display: Digitron display (green). 12 Digits with commas, decimal point, memory-1 and memory-2 signs, minus and overflow symbols.

Memories: Memory-1; GT mode key function, applicable memory-in and accumulation directly from all four functions. Memory-2; Full accumulation memory.

Item counters: 2 counters: 4 digits count register for add/subtraction entry count. 3 digits count register for memory-one entry count.

Selectors: Round select, Item count on and off, Non-print select and Decimal point selection of add-mode A, 0, 2, 4, 6, and floating.

Others: Automatic constant, Percent calculations, Balance reference key, Exchange key, Keyboard input buffer, Chain calculations and Print override key to print figure on tape during display only operation.



RETAIL \$189.95

APF
12 Digit 2-Memory
Desktop
Display/Printing
Calculator

YOUR COST **\$114⁹⁵**

MARK 55


- * 14 DIGIT DISPLAY - entries or results can be displayed in either a SCIENTIFIC MODE (10 digit sign mantissa, plus 2 exponents) or in a signed 12 digit FLOATING DECIMAL MODE.
- * Operates using the computer method of RPN logic - EFFICIENT AND CONVENIENT - Contains a 4 register stack.
- * 30 Key easy to use keyboard performs over 55 functions.
- * Answers trig and inverse trig functions in radians or degrees.
- * Functions of x ; \sqrt{x} , x^2 , $1/x$
- * Factorial; $X!$
- * Powers - y^x ; Roots - $\sqrt[y]{x}$
- * $\ln x$, e^x , $\log x$, 10^x
- * Hyperbolic functions
- * Percentages - markon, discount, gross profit margin, yield, delta percentage
- * Statistical Functions - mean, standard deviations
- * Vector summation
- * 9 storage memories
- * π - (π) function
- * radian and degree conversion
- * Polar and rectangular conversion
- * 8 types of Metric - English Conversion
- * Operates on rechargeable batteries or A.C. Current (recharger/Adaptor included)
- * Dimensions $6\frac{1}{4} \times 3 \times 1$ inches
- * Protective padded carrying case included.

YOUR COST
\$48⁹⁵

MARK 52


- * Large 100 Mil 9 Digit LED Display
- * 19 Keys - all keys double function except shift function key
- * Memory Indicator
- * Function Key In-Use Indicator
- * Scientific Notation
- * 5 Digit Mantissa, 2 Digit Sign, 2 Digit Exponent
- * CONV KEY (converts display from scientific notation to floating point answer or vice versa)
- * Floating Decimal

OPTIONS:

A.C. Adaptor

- * Natural Log
- * Trigonometric Functions - sine, cosine, tangent, arc sine, arc tangent
- * π
- * Full Accumulating 5 Function Memory
- * \sqrt{x} , $1/x$
- * Memory \leftrightarrow Display Exchange
- * Exponent Entry Key
- * Carrying Case Included
- * Dimensions:
W 2-1/2" x H 4-2/8" x D

YOUR COST
\$14⁹⁵

MARK 22


- * 9 Digit Fluorescent Display - approximately 200 mils high
- * 19 Keys - all keys double function except shift function key
- * Memory Indicator
- * Function Key In-Use Indicator
- * Operates In Degrees Or Radians
- * Scientific Notation
- * 5 Digit Mantissa, 2 Digit Sign, 2 Digit Exponent
- * Conv Key (converts display from scientific notation to floating point answer or vice versa)
- * Floating Decimal
- * Natural Log

YOUR COST
\$24⁹⁵
RECHARGEABLE

- * Trigonometric Functions - sine, cosine, tangent, arc sine, arc cosine, arc tangent
- * π
- * Full Accumulating 4 Key Memory
- * \sqrt{x} , $1/x$
- * Memory \leftrightarrow Display Exchange
- * Exponent Entry Key
- * Rechargeable Battery
- * AC Adaptor/charger included
- * Protective Carrying Case included
- * Dimensions:
3" wide x 5-1/4" high x 1" deep

MARK 23


- * Large 200 Mil 8 Digit Fluorescent Display
- * Floating Decimal Point
- * Algebraic Logic
- * Percentage Key
- * Accumulating Memory
- * Automatic Constant
- * Three Functions of X (x^2 , $1/x$, \sqrt{x})
- * $X \leftrightarrow Y$ Exchange
- * Timed Cutoff of Display - still retains calculations which can be redisplayed
- * Overflow, Negative Sign and Low Battery Indicators
- * Memory/Display Exchange
- * 20 Key, Easy To Use Double Function Keyboard
- * Rechargeable Battery
- * AC Adaptor/Recharger included
- * Protective Carrying Case included
- * Dimensions:
3" wide x 5-1/4" high x 1" deep

YOUR COST
\$20⁹⁵
RECHARGEABLE

MARK 21


- * 6 Function Electronic Pocket Calculator with full accumulating memory
- * Separate M-, M+, MR, MC keys for memory
- * Algebraic Logic
- * Chain or Mixed Calculations
- * Automatic Constant for addition, subtraction, multiplication and division
- * Percentage Key (%)
- * Exchange Key
- * Floating Decimal Point
- * Overflow Indicator
- * Memory In Use Indicator
- * Low Battery Indicator

YOUR COST
\$19⁹⁵
RECHARGEABLE

- * Minus Indicator for true credit balance
- * Automatic Suppression of Leading Zeros
- * Automatic Timed Cutoff of Display - still retains calculations which can be redisplayed
- * 8 Digit Fluorescent Display
- * Rechargeable Battery
- * AC Adaptor/charger included
- * Protective Carrying Case included
- * Dimensions:
3" wide x 5-1/4" high x 1" deep

MARK 31


- * Large 200 Mil 8 Digit Fluorescent Display
- * Floating Decimal Point
- * Algebraic Logic
- * Percentage Key
- * Accumulating Memory
- * Automatic Constant
- * Three Functions of X (x^2 , $1/x$, \sqrt{x})
- * $X \leftrightarrow Y$ Exchange

- * Overflow, Negative Sign and Memory In Use Indicators
- * Memory/Display Exchange
- * 27 Key, Easy To Use Single Function Keyboard
- * 9 Volt Battery Included
- * Dimensions:
L 5-3/4" x H 1" x W 3"

OPTIONS: AC Adaptor
Handsome Carrying Case

YOUR COST
\$14⁹⁵

MARK 75


- * 6 Function Electronic Pocket Calculator With Full Accumulating Memory
- * Separate M-, M+, MR, MC Keys for Memory
- * Algebraic Logic
- * Chain or Mixed Calculations
- * Automatic Constant For Addition, Subtraction, Multiplication & Division
- * Percentage (%) Key
- * Exchange Key
- * Floating Decimal Point
- * Overflow Indicator

YOUR COST
\$12⁹⁵

- * Minus Indicator For True Credit Balance
- * Automatic Suppression of Leading Zeros
- * 8 DIGIT FLUORESCENT Display
- * 9 Volt Battery Included
- * Dimensions:
L 4-7/8" x H 1" x W 2-1/2"

OPTIONS:
A.C. Adaptor
Handsome Carrying Case

MARK 70


- * 6 Function Electronic Pocket Calculator With Full Accumulating Memory
- * Separate M-, M+, MR, MC Keys for Memory
- * Algebraic Logic
- * Chain or Mixed Calculations
- * Automatic Constant For Addition, Subtraction, Multiplication & Division
- * Percentage (%) Key
- * Exchange Key
- * Floating Decimal

- * Overflow Indicator
- * Minus Indicator For True Credit Balance
- * Automatic Suppression of Leading Zeros
- * Large 100 Mil 8 Digit LED Display
- * Dimensions:
L 4-7/8" x H 1" x W 2-1/2"

OPTIONS:
A.C. Adaptor
Handsome Carrying Case

YOUR COST
\$9⁹⁵

APF electronics inc. **ELECTRONIC BREAKTHROUGH!**

New TV Game

Turn your TV into an electronic playground with a new computerized remote control TV game with a psychological twist.

To start the game, you just turn on your TV to channel three or four, switch on Pong, and press the start button. Your screen is suddenly covered by a playing field (in color on a color TV), and the ball is projected from the middle of the screen. Two can play or you can play by yourself. And, since Mark One is on the TV, the whole family can watch and enjoy the action too.

DESIGNED WITH A CHALLENGE

The game is programmed to slowly serve the ball at a variety of different angles to the player who lost the last point and then speed up after four strokes. The ball will then speed up again after four more strokes. The double speed-up feature keeps Mark One constant challenge as you improve your skill.

A typical game goes quickly - normally between 2½ to 4 minutes. After each point is scored, the new score is flashed on the screen and then disappears as the ball is served again. The first player to reach 15 points wins, and a pattern of squares fills the screen to signal the end of the game. To play again, just press the start button.

How many fun things can your entire family enjoy? TV is certainly one of them.

Now through solid-state technology and remote control electronics, you can convert your TV into a ping-pong game so authentic, it even sounds like ping-pong.

This new electronic breakthrough, called Mark One automatically keeps score with its own scoreboard, automatically increases speed, and is psychologically designed to be quick, exciting, and a challenge for all age levels. In fact, with a little practice, it's even possible for an eight year old to beat her father.

FUN AND EASY TO PLAY

A ball is projected from the middle of the screen to one side of the playing field. The paddle is a narrow line on the screen which you move up and down by twisting a knob on the remote control panel. To hit the ball, you position the paddle to collide with the ball.

A speaker in the unit generates a different ping-pong sound when the ball is either served, hits the paddle, or is missed. And each hit of the ball at different angles can propel it in any one of the seven different directions, thereby adding the element of "english" to each paddle stroke.

You can really abuse Mark One. Its solid state circuitry and high impact case mean that you can drop it, kick it, and abuse it, without fear. Mark One should never require service, but if it does during or after the unit's 90 day warranty, mail it in its handy mailer carton to Atari's prompt national service-by-mail center.

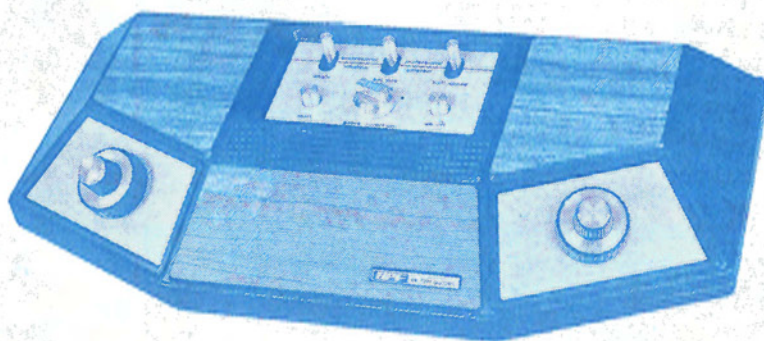
RETAIL PRICE \$99.95

YOUR COST FROM US

\$69⁹⁵

AC ADAPTER OPTIONAL \$6.95

90 DAYS GUARANTY



WITH THE REVOLUTIONARY NEW APF TELEVISION GAME, YOU CAN NOW PLAY FOUR GAMES:

- A TENNIS / PING PONG**
- B FOOTBALL / HOCKEY**
- C SQUASH / RACQUET BALL**
- D PELOTA / SINGLE HANDBALL**

TENNIS: Right hand and left hand player - individually controlled. Game is played like real tennis with ball being served, returned player to player until one player misses. . . 15 points wins game.

FOOTBALL/HOCKEY: Each player has two men. A goal keeper and a forward. Object of the game is to shoot ball thru opponent's goal to score.

SQUASH/RACQUET BALL: Played on 3 sided handball court. Players hit ball alternatively until one player misses.

PELOTA/SINGLE HANDBALL: Played like squash, except only one player plays against himself.

- FEATURES:**
1. Plays on any television black and white or color, the games are shown in black and white.
 2. AC/DC with an optional AC adapter, your cost of the adapter is \$5.95.
 3. Plays on channel number 3 or number 4.
 4. Can be installed in minutes by attaching to TV antenna. No internal installation. Can stay attached when not in use without interfering with regular television programs.
 5. Automatic Scoring shown on TV screen - 0 to 15.
 6. Automatic or manual ball serve. Manual maybe used as "Pause" control to stop the game at any time without having to start over.
 7. These fun games are designed to be played by people of all ages and skills. User can select A) bat (player) size; B) angles of deflection off the bat; C) speed of the ball. Play therefore, runs from amateur to professional status.
 8. Sound - 3 separate sounds - Top/bottom bounces, hits and scores. . .

- CONTROL PANEL:**
- A** Selector switch - 4 games, on and off
 - B** Manual or automatic serve
 - C** Bat Size)
 - C** Angles)
 - C** Ball Speed)
 - D** Reset - Game Start

TV SPORTS 802®

GAME

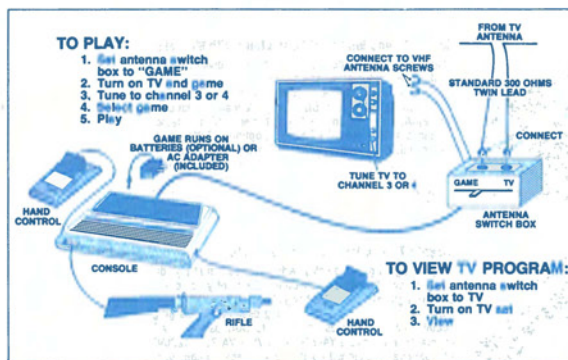
Lloyd's action-packed Sports 802® TV Game has been designed with the consumer in mind. It provides fun-filled entertainment for people of all ages, in the comfort of their own home.

- Plays six different popular sports: Tennis, Hockey (with Shooting Forwards), Squash or Handball, Practice, Straight-Line Target (Skeet), Moving Target
- Handsomely designed console can be placed on, or up to 18-feet away from TV set
- Operates on Channels 3 or 4
- Easy-to-use push buttons and toggle switches
- With two remote paddle-type controls on 8-foot cords and harmless, sturdy plastic target guns with 12-foot cords
- Powered by 6 "D" cell batteries (optional) or AC adapter (included)
- Console size: 11"W. x 8"D. x 3"H.

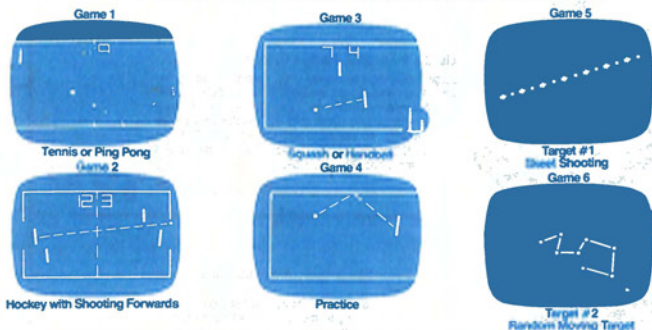
Additional Features:

- Reset control allows resetting of games at any time
- Automatic 1-15 digital scoring flashes on TV screen
- Automatic and manual ball service return
- High-low speed control
- Realistic sounds when ball hits bat, ball hits court boundaries, when scoring
- Long-short bat size control
- Ball return angle selections: narrow for beginners, wide for advanced players
- Model E802. Case pack: 4

YOUR COST
\$69.95



PLAYS 6 DIFFERENT POPULAR ELECTRONIC FIELD TV GAMES



Lloyd's 12-Digit Electronic Print-Out Calculator

12-digit Silent print head. Accepts standard-size paper refills. Four functions: addition, subtraction, multiplication and division. Percent key for add-on or discount. Floating decimal point system with choice of 2, 4, or 6 decimal positions. Add mode selection automatically converts to dollars and cents. Constant key retains first factor in multiplication and second factor in division as a constant. Exchange key reverses position of multiplicand and multiplier, or dividend and divisor. Change sign key: plus to minus, or minus to plus. Clear entry key. Clear all calculations key. Sub-total and non-add key. Paper advance key. Sub-total and total keys. 10-foot heavy duty extension cord. Size: 9" x 3 3/4" H. x 13" D.

E104
YOUR COST
\$89
Retail
\$139.95

YOUR COST
\$99
Retail
\$99.95

Lloyd's 12-digit Electronic Print-Out Calculator with Memory

12-digit silent print head. Accepts standard-size paper refills. Four functions: addition, subtraction, multiplication and division. Percent key for add-on or discount. Floating decimal point system with choice of 2, 3, or 4 decimal positions. Add-mode selector automatically converts to dollars and cents. Round-off key. Item counter key counts the number of plus and minus entries. Double zero key. Memory minus and equal key. Memory plus and equal key. Clear entry key. Clear all calculations key. Sub-total and total keys. 10-foot cord. 9"W. x 3 3/4"H. x 13"D. Wt. 11 lbs.

E-105



E205

Lloyd's Electronic Print-Out Calculator with 12-Digit Display and Memory

12-digit digitron display with its own On/Off key. Stop-Start motor. Seiko printing head. Buffered key board. Accepts standard-size paper refills. Percentage key for add-on or discount. Decimal point key: floating in, fixed out system with choice of 2, 3, 4 or 6 decimal positions and add-mode. Item counter key. Round-off key. Single and double zero keys. Overflow key. Constant key. Item key. Clear entry key. Clear all calculations key. Paper advance key. Sub-total, non-add and total keys. Print and non-print key. Plus and minus key. Power On light. Memory signal: when memory register is in use, the MEM light will glow. Memory minus and equal key. Memory plus and equal key. Clear memory key. Recall memory key. 10-foot heavy duty extension cord. Dimensions: 9" W. x 3 3/4" H. x 13" D.

YOUR COST
\$127
Retail **\$127.95**



LLOYD'S**E501**

Lloyd's 7-Function "Mini" Calculator with Memory
8-digit LED display. Add, subtract, multiply, divide. Floating decimal. Automatic constant on $+$, $-$, \times , \div . 2-button memory: MEMORY (STORE), MEMORY (RECALL). % key for add-on or discount. Clear entry, clear all calculations key C/CE/CA. Operates on one 9-volt battery. AC adaptable with Lloyd's Y207 (9-volt) AC adapter, optional. Battery and case included. Dimensions: 2 1/4" W. x 5 1/2" D. x 3/4" H.

YOUR COST**\$9⁹⁵****E303**

Lloyd's 7-Function Student Calculator

Large 8-digit digitron display. Add, subtract, multiply, divide. % key with add-on, discount. Clear entry key C/CE. Change sign key \pm/\mp . Exchange key $\times \leftrightarrow \div$. Automatic constant on $+$, $-$, \times , \div . Floating decimal. Recharging circuit built-in. Operates on 4 penlite (AA) batteries. AC adaptable with Lloyd's YA-7247 (120V) or YA-7585 (220V) AC adapters. Packed with batteries and case. Dimensions: 3 1/4" W. x 5 1/2" D. x 1 1/4" H.

YOUR COST \$10⁹⁵**E304**

Lloyd's 6-Function Student Calculator

Large 8-digit digitron display. Add, subtract, multiply, divide. % key with add-on, discount. Direct $\sqrt{\quad}$ (square root) key. Automatic constant on $+$, $-$, \times , \div . Floating decimal. Recharging circuit built-in. Operates on 4 penlite (AA) batteries. AC adaptable with Lloyd's YA-7247 (120V) or YA-7585 (220V) AC adapters. Packed with batteries and case. Dimensions: 3 1/4" W. x 5 1/2" D. x 1 1/4" H.

YOUR COST \$12⁹⁵**E-341**

Lloyd's 5-Function Deluxe "Mini" Calculator with Memory

8-digit digitron display. Add, subtract, multiply, divide. Fully accessible accumulating memory. % key with add-on, discount. Automatic constant on $+$, $-$, \times , \div . Floating decimal. Hidden features include x^2 and $1/x$. Operates on 3 "AAA" batteries. Packed with batteries and case. 2 1/4" W. x 13 13/16" D. x 13/16" H.

YOUR COST \$11⁹⁵**E-311**

Lloyd's 6-Function Business Man's Calculator with Memory

Large 8-digit digitron display. % key. Full memory. Change sign key \pm/\mp . Automatic constant $\sqrt{\quad}$ key. Exchange key (EX). Floating decimal. Uses 4 penlite (AA) batteries. AC adapter optional. Packed with batteries and case. 3 1/4" W. x 5 1/2" D. x 1 1/4" H.

YOUR COST \$13⁹⁵**E-610**

Lloyd's Ultra-Slim Checkbook Calculator

Bright, 8-digit digitron display. Adds, subtracts, multiplies, divides. Percent key. Direct $\sqrt{\quad}$ key. Change sign key. Exchange key. Full 4-key memory. Brush aluminum finish. 3 "AAA" batteries (included). 4.5 volt AC adapter (optional). With pouch and checkbook-style case. 2 1/4" W. x 1 1/2" H. x 5 1/4" D.

YOUR COST \$15⁹⁰**E321**

Lloyd's 10-Function Basic Slide Rule Calculator with Full Memory

Large 8-digit digitron display. Add, subtract, multiply, divide. % key with add-on discount. Direct $\sqrt{\quad}$ (square root) key. Parenthesis: enters complex algebraic expressions. Fully addressable memory with M+, M-, MR and MC keys. % key for direct reciprocals. x^2 key for direct squaring. Change sign key \pm/\mp . Automatic constant on $+$, $-$, \times , \div . Floating decimal. Recharging circuit built-in. Operates on 4 penlite (AA) batteries. AC adaptable with Lloyd's YA-7247 (120V) or YA-7585 (220V) AC adapters. 3 1/4" W. x 5 1/2" D. x 1 1/4" H.

YOUR COST**\$15⁹⁰****E-334**

Lloyd's 17-Function Advanced Slide-Rule Calculator with Scientific Notation

Large 8-digit digitron display. Scientific notation with 5-digit mantissa. 2-sign digits. 2-exponent digits. Degree - radian switch. Trigonometric functions: Direct $\sqrt{\quad}$ (square root) key. Logarithmic functions: Direct $\log(P)$ key works in conjunction with other functions. Fully addressable 4 key memory. Operates on 4 penlite (AA) batteries. AC adaptable with YA-7247 (120V) or YA-7585 (220V) AC adapters. Packed with batteries and case. 3 1/4" W. x 5 1/2" D. x 1 1/4" H.

YOUR COST \$19⁹⁵**E445**

Lloyd's 26-Function Advanced Scientific Slide-Rule Calculator

Scientific notation: 5-digit mantissa, plus sign and 2-digit exponents plus sign. Floating point display for results between 1 and 10^{-1} . SIN, COS, TAN, SIN⁻¹, COS⁻¹, TAN⁻¹. Degree/radian mode switch for trigonometric functions. Base e logarithm (LN). Base e exponential (e^x). Base 10 logarithm (LOG). Base 10 exponential (10^x). Numbers to powers (a^b). Roots of numbers easily taken $\sqrt[n]{\quad}$. Parenthesis - two levels. Memory store (STO); recall (RCL). $+$, $-$, \times , \div . Square root $\sqrt{\quad}$. Reciprocal $1/x$ key. Change sign \pm/\mp . Automatic constants. Keyboard lockout on error overflow. Single clear entry/clear key C/CE. AC adaptable with Lloyd's YA-7247 (120V) or YA-7585 (220V) AC adapters. Built-in recharging circuit. Operates on 4 penlite batteries (AA) included with case. 3 1/4" W. x 5 1/2" D. x 1 1/4" H.

YOUR COST**\$27⁹⁵****E335****Lloyd's 45-Function Advanced Slide Rule Calculator**

12-digit digitron display with scientific notation: 8-digit mantissa plus sign with 2-digit exponent plus sign. SIN, COS, TAN; SIN⁻¹, COS⁻¹, TAN⁻¹. Degree/radian mode switch for trigonometric functions. Power On/Off button. Base e logarithm and exponential LN. Base 10 logarithm and exponential LOG. Square root $\sqrt{\quad}$, reciprocal $1/x$, square x^2 and powers of numbers. Accumulating memory plus M+, store STO, recall RCL. Exchange key $\times \leftrightarrow \div$. Single clear entry/clear key C. Direct $\sqrt[n]{\quad}$ key. Enter exponent key EE. Automatic constants. Full floating and scientific entry capability. Parenthesis - two levels. Recharging circuit built-in. Operates on 4 penlite (AA) batteries. AC adaptable with Lloyd's YA-7247 (120V) or YA-7585 (220V) AC adapters. Packed with batteries and case. 3 1/4" W. x 5 1/2" D. x 1 1/4" H.

YOUR COST \$34⁹⁵**E-650**

Lloyd's 43-Key Super Scientific Portable Calculator

Scientific Notation: 8-digit mantissa, 2 digit sign, 2-digit exponent. Performs trigonometric and hyperbolic functions. Instantly performs complex calculations such as square roots, reciprocals, natural and common logarithms, powers of numbers, factorials. Degree/radian/gradian modes. Degree/radian conversion. Converts degrees/minutes/seconds to decimals. Polar-rectangular conversion. Fully addressable 6-key memory. Sum and store key. Two levels of parentheses. Mean and standard deviation. $\times \leftrightarrow \div$ exchange key. Direct $\sqrt[n]{\quad}$ key. Bright 12 character digitron display. With case and batteries. 3 1/4" W. x 1 1/4" H. x 5 1/4" D.

YOUR COST \$36⁹⁵**E104**

Lloyd's 12-Digit Electronic Print-Out Calculator

12-digit Silent print head. Accepts standard-size paper refills. Four functions: addition, subtraction, multiplication and division. Percent key for add-on or discount. Floating decimal point system with choice of 2, 4, or 6 decimal positions. Add mode selection automatically converts to dollars and cents. Constant key retains first factor in multiplication and second factor in division as a constant. Exchange key reverses position of multiplicand and multiplier, or dividend and divisor. Change sign key: plus to minus, or minus to plus. Clear entry key. Clear all calculations key. Sub-total and non-add key. Paper advance key. Sub-total and total keys. 10-foot heavy duty extension cord. Size: 9" x 3 1/4" H. x 13" D.

YOUR COST \$89⁹⁵**E105**

Lloyd's 12-digit Electronic Print-Out Calculator with Memory

12-digit silent print head. Accepts standard-size paper refills. Four functions: addition, subtraction, multiplication and division. Percent key for add-on or discount. Floating decimal point system with choice of 2, 3, or 4 decimal positions. Add-mode selector automatically converts to dollars and cents. Round-off key. Item counter key counts the number of plus and minus entries. Double zero key. Memory minus and equal key. Memory plus and equal key. Clear entry key. Clear all calculations key. Sub-total and total keys. 10 foot cord. 9" W. x 3 1/4" H. x 13" D. Wt. 11 lbs.

YOUR COST \$99⁹⁵**E205**

Lloyd's Electronic Print-Out Calculator with 12-Digit Display and Memory

12-digit digitron display with its own On/Off key. Stop-Start motor. Seiko printing head. Buffered key board. Accepts standard-size paper refills. Percentage key for add-on or discount. Decimal point key: floating in, fixed out system with choice of 2, 3, 4 or 6 decimal positions and add-mode. Item counter key. Round-off key. Single and double zero keys. Overflow key. Constant key. Item key. Clear entry key. Clear all calculations key. Paper advance key. Sub-total, non-add and total keys. Print and non-print key. Plus and minus key. Power On light. Memory signal: when memory register is in use, the MEM light will glow. Memory minus and equal key. Memory plus and equal key. Clear memory key. Recall memory key. 10-foot heavy duty extension cord. Dimensions: 9" W. x 3 1/4" H. x 13" D.

YOUR COST \$127⁹⁵**Y207 YOUR COST \$2⁹⁵**

AC Adapter for "Mini" Calculators

9-volt AC adapter for Lloyd's E501 and E502 "Mini" models.

YA-7247 YOUR COST \$4⁹⁵

AC Adapter "Adapt-O-Pak"

120-volt AC adapter for Lloyd's hand-held calculators.

**YA-7585**

AC Adapter "Adapt-O-Pak"

220-volt AC adapter for Lloyd's hand-held calculators.

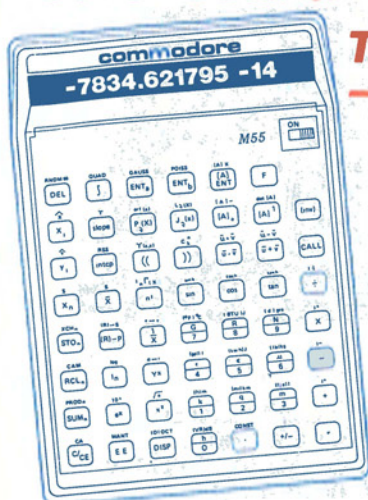
YOUR COST \$5⁹⁵

QUALITY CALCULATOR STANDS
CALCONVERTER

For Hand Held \$3.98
For Digital Desk Top \$4.98
In Deluxe Wood for Hand Held \$7.95

LLOYD'S calculators WARRANTY: One year on parts - NINETY days on labor, when the consumer ships or takes defective units to LLOYD'S Servicing centers located at: LLOYD'S Electronics 180 Raritan Center Parkway, Edison, New Jersey 08817 or at LLOYD'S Electronics 18801 South Susana Road, Compton, California 90221. Olympic Sales does not guarantee any new products, each respective manufacturer or importer does.

The Third Generation Calculators By **commodore**



The Mathematician -M55

- $C \frac{n}{r}$ Combinations
- $\gamma(a, x)$ Incomplete Gamma
- $\ln \Gamma(x)$ Natural log of Gamma
- $J_p(x)$ Bessel function
- GAUSS Gaussian (Normal) distribution
- POISS Poisson distribution
- $P_p(x)$ Legendre polynomial
- QUAD Quadratic solution
- \int Numerical integration
- $\text{erf}(x)$ Error function
- $L_p(x)$ Laguerre polynomial

YOUR COST \$99.50

(These unique functions are particularly useful in the solution of: ☐ Partial Differential Equation ☐ Series solution of the wave equation and other boundary value problems ☐ Fluid Flow ☐ Field Theories ☐ Diffusion Rates ☐ Heat Transfer.)

Eleven preprogrammable physical constants including a number of unique constants:

- h Planck's constant
- k Boltzman's constant
- q electronic charge
- m electron rest mass
- c velocity of light

Designed with the equivalent of more than 2000 pages of tables; and is preprogrammed so that, with a simple series of keystrokes, you can accomplish applications never before available in any personal calculator. It is the world's most powerful personal calculator dedicated to all those with the respect, and need, for advanced mathematics.

Retail \$149.50 Including Charger

The Navigator -N60

Preflight

Navigation by Rhumbline . . . navigation by 1 VOR . . . navigation by 2 VOR's . . . density altitude computation.

Inflight

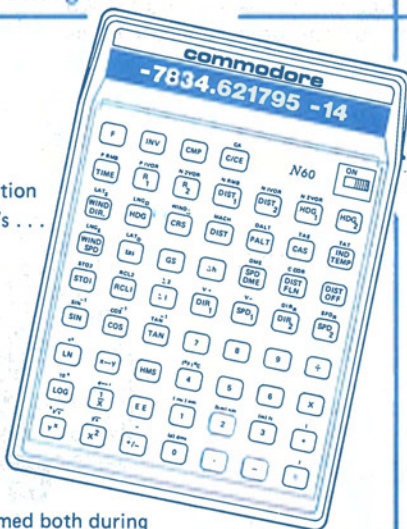
Finding position by Rhumbline (dead reckoning) . . . position by 1 VOR . . . position by 2 VOR's . . . mach number computation . . . true airspeed computation . . . true air temperature computation . . . DME speed correction . . . off-course correction

Also included are functions performed both during inflight and preflight such as complete solutions of the wind triangle and vector addition and subtraction.

Direction (degree-minute-second) or time (hour-minute-second) is displayed in a special format: DDD-MM-SS or HHH-MM-SS. The capability to manipulate numbers in this format makes calculations involving time and directional quantities such as time enroute, estimated time of arrival and fuel consumption rate effortless.

Additionally, basic functions such as +, -, x, ÷, x^2 , \sqrt{x} , y^x , $\sqrt[y]{x}$ logarithmic, and trigonometric, metric conversions, as well as two user memories, are provided so that the calculator can also be used by the flight enthusiast as a general purpose scientific calculator.

Retail \$149.50 Including Charger \$99.50
YOUR COST



The Statistician -S61

Cumulative Distribution Functions

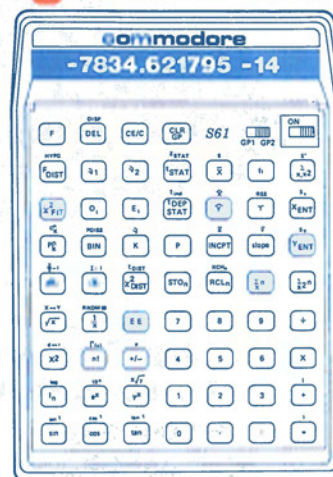
- Normal distribution (in 2 Forms)
- Inverse of the normal Distribution
- + distribution
- x^2 distribution
- F distribution
- Poisson distribution
- Hypergeometric distribution
- Binomial distribution

Mathematical Functions:

- \sin, \cos, \tan Trigonometric functions
- \cos^{-1}, \tan^{-1} and their inverses
- $d(-)r$ Degree to Radian conversions, and mode
- \ln, e^x Natural log and anti-log
- $\log, 10^x$ Common log and anti log
- $\Gamma(x), n!$ Gamma function and factorial
- $y^x, x\sqrt[y]{x}, x^2$ Exponential functions
- $+, -, x, \div$ Arithmetic functions
- (,) One level of parenthesis
- $x(-)y$ Exchange of x and y registers
- $\frac{1}{x}, \sqrt{x}, \pi$ Convenient math functions

Memory Functions:

- STO, RCL, Xch, Σn , Σn , Σn , CLR
- n , x^2 , i, x, x^2 , GP



Retail \$149.50
Including Charger
YOUR COST \$99.50



MODEL SR 4190R

Key Function	Texas Instruments SR50H	Commodore SR4148R	Texas Instruments SR51A	Commodore SR4190R
Log, In X	YES	YES	YES	YES
\sin, \cos, \tan	YES	YES	YES	YES
Hyperbolic \sinh, \cosh, \tanh	YES	NO	YES	YES
Degree radian conversion and selection	YES	YES	YES	YES
Decimal degrees to degrees, minutes, seconds	NO	NO	YES	YES
Polar-rectangular conversion	NO	NO	YES	YES
$r, \theta, x, y, \rho, \phi, \psi, \chi, \lambda, \mu, \nu, \xi, \eta, \zeta, \delta, \epsilon, \gamma, \beta, \alpha$	YES	YES	YES	YES
Factorial	NO	YES	YES	YES
x exchange	YES	YES	YES	YES
Exchange X with memory	NO	NO	YES	YES
\sqrt{x} and $\sqrt[y]{x}$	NO	NO	YES	YES
Mean, standard deviation	NO	NO	YES	YES
Variance	NO	NO	YES	YES
Linear regression, trend line analysis	NO	NO	YES	YES
Slope, intercept	NO	NO	YES	YES
Store, recall and cumulative memory	YES	YES	YES	YES
Number of memories	2	2	2	2
Product to memory	NO	NO	YES	NO
Random number generator	NO	NO	YES	NO
Automatic calculations	NO	NO	YES	YES
Preprogrammed conversion	1	2	20	13
Algebraic notation	YES	YES	YES	YES
Fixed decimal operation	NO	NO	YES	NO
Number of keys	40	48	46	49
Constant mode operation	NO	++	YES	++
Display accuracy	13	14	13	14
Second function keys	NO	NO	YES	YES
Parenthesis	NO	YES	NO	YES
Complex numbers	NO	NO	NO	YES
Hours minutes seconds mode	NO	NO	NO	YES
Gamma function	NO	NO	NO	YES
Combinations	NO	NO	NO	YES
Numerical integration	NO	NO	NO	YES
Binomial distribution	NO	NO	NO	YES
Gaussian (normal) distribution	NO	NO	NO	YES
Poisson distribution	NO	NO	NO	YES
Exponent shift	NO	YES	NO	YES

*Square standard distribution **Use store memory

- Back and forth conversions:
- (°)F-C-Fahrenheit \leftrightarrow Centigrade
- (d)min-sec-decimal degree \leftrightarrow degree-minute-second
- (d)min-sec-degree \leftrightarrow grad
- (gal) \leftrightarrow gallon \leftrightarrow liter
- (oz)g-ounce \leftrightarrow gram
- (lb)kg-pound \leftrightarrow kilogram
- (ft)m-foot \leftrightarrow meters
- (mi)km-mile \leftrightarrow kilometer
- (foz) \leftrightarrow fluid ounce \leftrightarrow liter
- (in)cm-inch \leftrightarrow centimeter
- (BTU) \leftrightarrow British Thermal Unit \leftrightarrow Joule

Then — from Commodore — the third generation.

The Model 4190 was the first of the preprogrammed personal calculators. Over 100 direct entry functions were provided to simplify further mathematical problem solving. The Series 60 described in this brochure go even beyond this point in providing the ultimate in convenience, versatility and affordability.

Retail \$99.95 Including Charger \$56.95
YOUR COST

corvus MODEL 307 Versatile Desk Calculator with Full Memory



Desk Top
Percent Key
Full Floating Decimal
Wide Keyboard
Full Four Key Memory
Constant
Good Seller
8 Extra Large Digits

RETAIL \$89.95

YOUR COST
\$34.95

JVC MODEL 3050 SUPER PORTABLE RADIO TV COMPACT FM/AM/PBS RADIO 3" DIAGONAL TELEVISION



Viewing Area 3.9 sq. in.
Channels: VHF 2-13
UHF 14-83
AM 535-1605 KHZ
FM 88-108 MHZ
PSB 148-174 MHZ

Free 8-16 Digit Remington
Calculator Model 821GT
With Purchase of 3050

Rechargeable Pack - Kit Your Cost 49.95

YOUR COST
\$199.95

CALL US FOR UP TO DATE SPECIAL PRICES

InterMagnetics

"C60" 60 MINUTE CASSETTE

Complete with Pins and
Rollers, Hard windows,
lubricated liners, screw type
housings, calendered low-noise
tape. Individually cello-wrapped
"Phillips" Box.

T. Polyester
Width 0.150 + .000 or -.002
Base Thickness
Coating Thickness 0.18 mil
Coercivity (Hc) 300
Bias Noise 0

YOUR COST

C-60 Tape 60 Minutes

Buy 100 at 49¢ each
Buy 250 at 47¢ each
Buy 500 at 45¢ each
Buy 1,000 at 39¢ each
Buy 10,000 at 36¢ each

C-90 Tape 90 Minutes

Buy 100 at 64¢ each
Buy 250 at 63¢ each
Buy 500 at 61¢ each
Buy 1,000 at 55¢ each
Buy 10,000 at 51¢ each

Terms of payment on cassette tapes are either payment in advance,
letter of credit or 50% payment on account, the balance on delivery.



corvus 500 SCIENTIFIC "THE SCIENTIST/ENGINEER'S PROBLEM SOLVER"

REVERSE POLISH NOTATION

Clear
Clear display
Add, subtract, multiply, divide
Scientific display format;
10-digit mantissa,
2-digit exponent,
floating decimal
Mode set to radians
Fix decimal point (0-9) in display
Sine
Cosine
Tangent
Hyperbolic sine
Hyperbolic cosine
Hyperbolic tangent
Memory store, 9 registers



RETAIL \$69.95

YOUR COST
\$59.95

INCLUDING CHARGER

PAYMASTER CHECKWRITERS

MODEL	SPECIFICATIONS	YOUR COST
8000	Ribbonwriter 8 Columns	79.50
7000	Full Keyboard Ribbon 8 Columns	99.50
X 2000	With Elec. Alarm 8 Columns	89.50
S 1000	Gear O'Matic 7 Columns	74.50
875	Combination Writer/Signer 8 Columns, Manual	179.50
8000	With the "Pesos" Symbol	99.50

FACTORY RECONS



"Flip A Tape" Model for 90
Minute Cassettes C-90
Including 12 - 90 minute cassettes
Your Special Cost \$17.95

FlipATape Cassette index system

Revolving Stand
Holds 12 Cassettes
Protects Your Tapes
Indexed Both Sides
Organizes Programs
Each Flip a Tape
Rack Comes Loaded
With 12 New C 60
Int. Mag. Blank Cassettes

YOUR COST
\$9.95 **INCLUDING 12**
60 MINUTE
CASSETTES

PLEASE CALL US FOR UP TO DATE AND SPECIAL PRICES