There's a better way...

electronic calculators from Texas Instruments

TEXAS INSTRUMENTS
INCORPORATED

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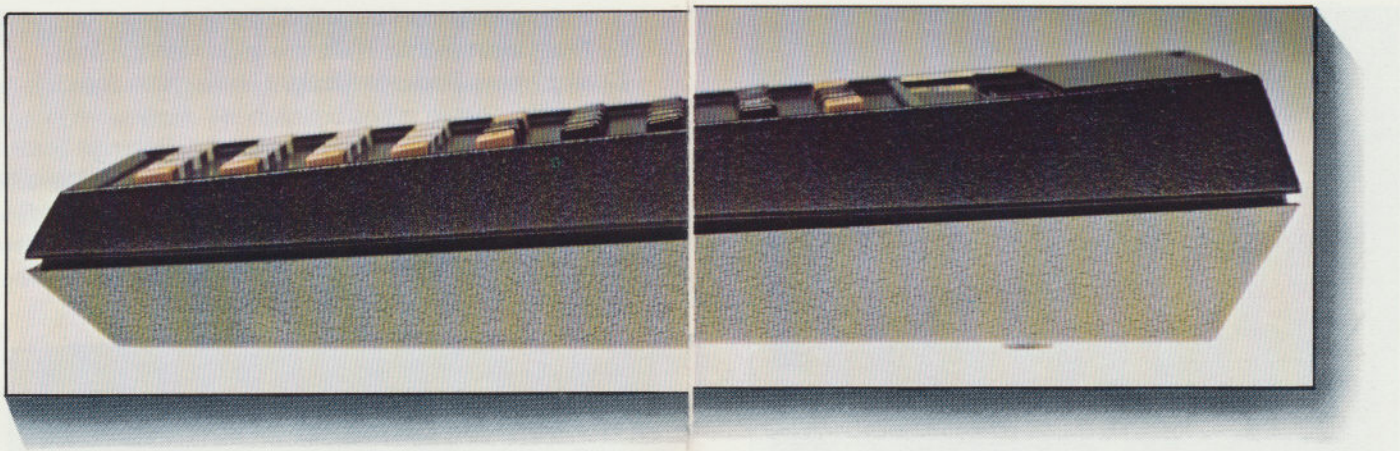
The Better Way.

An electronic calculator. It'll take the drudgery out of your number work. Then, speed and accuracy and confidence come quickly—even if you've never used one before. And, today, a quality electronic calculator is within reach of almost everyone. You'll expect yours to serve you for years. We hope you'll make your choice with that in mind.

America's most popular calculators by far are made by Texas Instruments. There are good reasons why: Quality. Value. Features. Design. And a name you can trust.

That name is a good place to start. Because Texas Instruments offers a wide choice, priced and designed to fit almost every need, from basic arithmetic to higher mathematics. For home, school, business, science. You.



When you choose your electronic calculator, consider quality. Consider TI.

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Datamath Calculator Museum

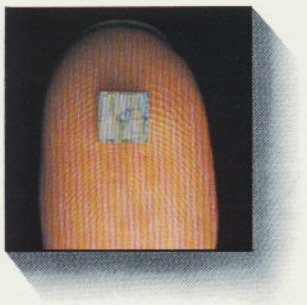
There's a difference in electronic calculators. Among almost numberless names and models, one brand stands out. Texas Instruments. Here's why:

The electronic calculator is a highly scientific, state-of-the-art instrument embodying some of today's most advanced technologies. It's logical, then, to look first to the manufacturer known world-wide for leadership in both calculators and the technology behind them—Texas Instruments. The catalyst for the calculator boom was the integrated circuit, a tiny chip of silicon combining the amazing computational power of thousands of transistors. Texas Instruments invented the original integrated circuit and has produced more of them than any other company in the world. In advanced technology, know-how and experience are the keys to quality. TI knows how.

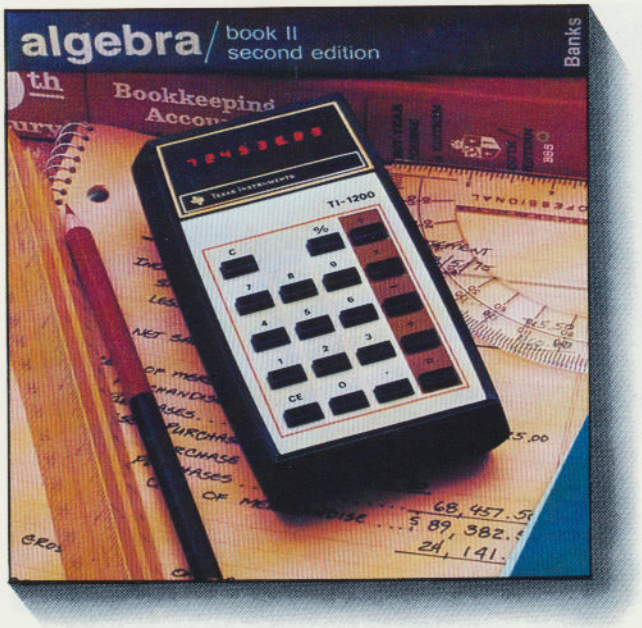
Texas Instruments has long been a leader in solid-state technology and has pioneered a series of landmark developments relating directly to calculators, in addition to the original integrated circuit: Key patents in the basic Metal-Oxide-Semiconductor (MOS) technology used in calculators. The "calculator-on-a-chip" integrated circuit which became the heart of miniature calculators. And, the basic patent on the miniature calculator itself.

Texas Instruments is steeped in calculator technologies from start to finish, designing and manufacturing all critical parts from start to finish. So, we design in and control quality—not just monitor it—every step of the way.

Know-how, experience, and start-to-finish quality control—these are the keys to the exceptional quality and craftsmanship in Texas Instruments calculators. Before you choose, consider quality. Consider TI.



The integrated circuit combines the computational power of thousands of transistors in a tiny chip of silicon. Texas Instruments is known worldwide for leadership in this advanced technology.



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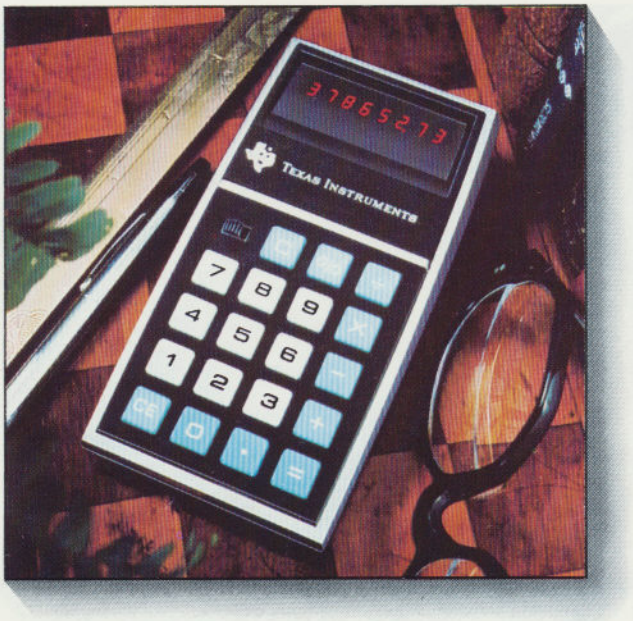
The TI-1200

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).

The TI-1250

A lightweight and economical calculator offering a full function memory system that features add to memory M+, subtract from memory M−, memory recall MR, and memory clear 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).



The TI-1500

A smartly styled unit featuring four-function capability plus percent key, full floating decimal, automatic constant in all four functions, and an easy-to-read 8-digit display—powerful performance in a compact portable that fits easily into your pocket or purse. Convenient non-skid base assures stable desk-top use, eliminates sliding when you press the keys. Precisely designed keyboard is arranged for simplicity of operation. Even complex problems can be solved easily by pressing the keys just as the problem is written. Operates on rechargeable batteries or AC.

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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 [M+], [M−]. Recall [MR] and clear from memory [CM]. Set decimal two ways: 2-places or full floating. It positions automatically.

Special functions include reciprocals, squares, square roots and a reverse [RV] 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.

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Datenblatt Calculator Museum

The TI-5050

A small, portable printing calculator providing fast, quiet operation and high speed features usually found only on large machines. Adds, subtracts, multiplies, divides, figures percentages automatically to simplify add-ons and discounts. Constant operation with multiplication/division and repeat add/subtract. The TI-5050 prints nine digits plus audit symbols on two-inch thermal printing paper, and it fits easily into a three-inch briefcase. Position decimal automatically at two places (add mode) or select full floating decimal.High-level buffering lets you make multiple entries while the calculator is still printing. Operates on rechargeable batteries or AC.

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 M+ or M− keys. RM key recalls from memory. CM key clears memory. Percentage problems can be easily solved by using the % key. 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.

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The TI-620

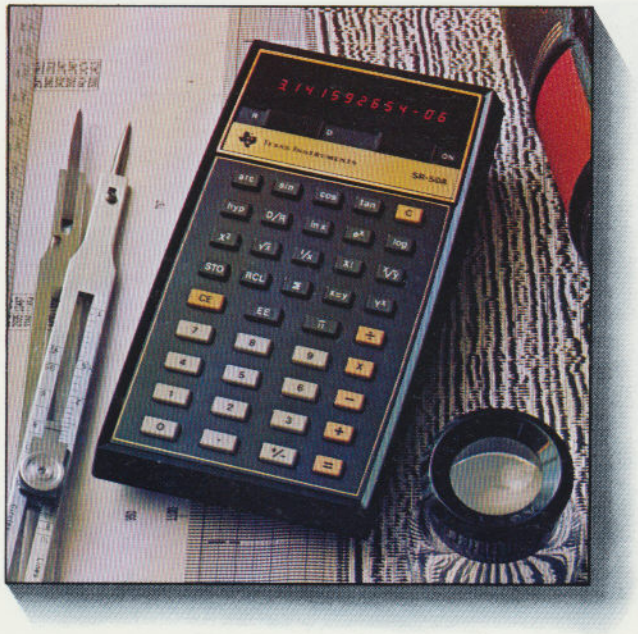
Combining 12-digit calculating capacity with a convenient memory system and many other features, the TI-620 offers powerful office performance and provides accurate printed records of business computations. Four memory keys provide capability for accumulating and recalling numbers in the memory; or, the convenient "Sum-to-Memory" switch allows results of addition, subtraction, multiplication, or division calculations to be accumulated in memory automatically if desired. [%] 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 [•] key in dollars-and-cents figuring. Operates on AC, using standard printing calculator paper.

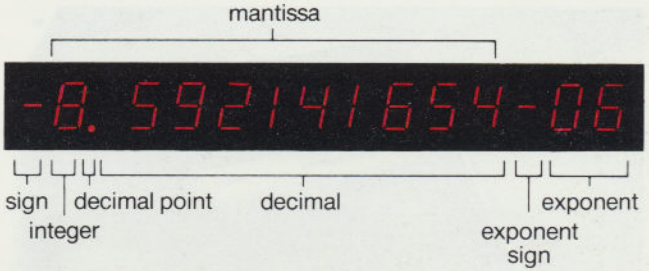
The SR-16-II

A multifunction scientific calculator that solves simple arithmetic as well as complex, technical problems. Independent memory operations permits solving calculations such as sum-of-products or quotient-of-sums without re-entering intermediate results or rewriting the problem for sequential operation. Has automatic constant.

Operation of the special keys is simple and direct. All are single function: Square root, square, reciprocal, π, raise a displayed number e to a power (y^x, e^x), log and natural log.

The SR-16-II will display numbers as large as $\pm 9.9999999 \times 10^{8}$ and as small as $\pm 1.0 \times 10^{-99}$ (answers greater than 10^{8} or less than 10^{-7} are automatically converted to scientific notation). Operates on 3 replaceable batteries or optional AC adapter.





The SR-50A

Complex scientific calculations are solved as easily as simple arithmetic with a full function, portable slide-rule calculator, ideal for student or professional use. The SR-50A features an algebraic keyboard and sum-of-products capability with single-function keys for easy problem solving.

Most calculations are performed in the same order the problem is stated. In addition to simple arithmetic, the SR-50A performs all classical slide-rule calculations—roots, powers, reciprocals, factorials, common and natural logarithms and their inverses, trigonometric (sin, cos, tan) and hyperbolic (sinh, cosh, tanh) functions and their inverses—all in free floating decimal point or in scientific notation. (See chart for additional detail.)

The versatile electronic memory allows data to be stored and retrieved or added to memory. The SR-50A features a degree/radian switch which makes the calculator interpret the displayed angle in degrees (when set at "D") or in radians (when set at "R"). By pressing the angle change key (D/R), the calculator will convert the displayed angle from radians to degrees or degrees to radians.

The SR-50A computes and displays numbers as large as $\pm 9.999999999 \times 10^{99}$ or as small as $\pm 1.0 \times 10^{-99}$ on the bright, easy-to-read 14-character display (10-digit mantissa, 2-digit exponent, 2 signs). Automatically converts to scientific notation when the calculated answer is greater than 10^{10} or less than 10^{-10}. Answers are calculated to 13 digits and displayed rounded to 10 significant digits; however, for maximum accuracy, the SR-50A uses all 13 digits for internal calculations. Operates on single-unit rechargeable battery pack (4 hours to restore full charge, operable while recharging) or AC.

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Fast and easy. No calculator in its class is so easy to master.

The SR-50A lets you key the problem just as you would state it. A unique register system provides a sum-of-products capability directly at the keyboard. This ability to store the first product while the second is being calculated is in addition to the memory accessed by the memory keys. The efficiencies are suggested by this simple problem:

$(2 \times 3) + (4 \times 5) = 26$

TI's Algebraic Entry Method:

2 [×] 3 [+] 4 [×] 5 [=] 26

Reverse Polish Entry Method:

2 [↑] 3 [×] 4 [↑] 5 [×] [+] 26

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The SR-51A

A professional calculator with special features for statisticians, businessmen, engineers, scientists, and students. In addition to simple arithmetic, the SR-51A performs:

- Functions of x—square root, square, reciprocal, y^x and $\sqrt[x]{y}$.
- Logarithmic functions—common and natural logarithms and their inverses.
- Trigonometic and hyperbolic functions—and their inverses.
- Linear regression—least-squares linear regression problems performed on two-dimensional random variables from a minimum of 2 to a maximum of 99 data points.
- Statistical functions—factorials, random numbers, permutations, mean, variance, and standard deviation.
- Decimal point—allows selection of the location of the decimal point from zero to eight decimal places—or full floating.
- %—performs add-on, discount, and percentage calculations.
- Δ %—calculates the percentage change between x_1 and $x_2 \left(\frac{x_2 - x_1}{x_1} \times 100\right)$.
- Constant operations—allows repetitive calculations of roots, powers, addition, subtraction, multiplication, and division.
- Conversions—20 preprogrammed conversions and their inverses, as listed below, by entering simple two-digit code:

CONVERSION CODES

FROM	TO	CODE
mils	microns	00
inches	centimeters	01
feet	meters	02
yards	meters	03
miles	kilometers	04
miles	nautical miles	05
acres	square feet	06
fluid ounces	cubic centimeters	07
fluid ounces	liters	08
gallons	liters	09
ounces	grams	10
pounds	kilograms	11
short ton	metric ton	12
BTU	calories, gram	13
degrees	grads	14
degrees	radians	15
°Fahrenheit	°Celsius	16
deg.min.sec.	decimal degrees	17
polar	rectangular	18
voltage ratio	decibels	19

The SR-51A features three user accessible memories for storing, recalling, summation, and multiplication of data to memory independent of arithmetic keys.

The SR-51A computes and displays numbers as large as $\pm 9.999999999 \times 10^{99}$ and as small as $\pm 1.0 \times 10^{-99}$, automatically converting answers to scientific notation when the calculated answer is greater than 10^{10} or less than 10^{-10}. Answers are calculated to 13 digits and displayed rounded to 10 significant digits; however, for maximum accuracy, the SR-51A uses all 13 digits for internal calculations. For ease of operation, most calculations are performed in the same order as the problem is stated. Provides sum-of-products capability without the use of special keys. Operates on fast-charge rechargeable battery pack (4 hours to restore full charge) or AC.

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 presolve 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, editing and debugging keys let you move through programs a step at a time, forward or backward. Add, delete, or write over steps.

The run mode lets you read programs stored on magnetic cards. Enter numbers directly into the program or into one or more of the 20 addressable memory registers. Or both. Execution is completely automatic. A program runs until it encounters a halt (which may be part of a program or a keyed-in interruption).

Repeat a program as often as needed. Change values of variables. Solve for different unknowns. The stored program is unaffected.

Calculate mode lets you operate the SR-52 manually. With 27 preprogrammed mathematical functions, the SR-52 solves complex functions quickly. Has full register arithmetic, and compatibility with the PC-100 to print out program steps and/or problem solutions.

Display range is: $\pm 1 \times 10^{-99}$ to $\pm 9.999999999 \times 10^{99}$. Flashes for various error conditions.

An AC adapter charger is included to use while operating or for fast battery recharge from a standard 115-volt electrical outlet.

BASIC LIBRARY OF PRERECORDED PROGRAMS

Conversions 1 & 2
Solution of Quadratic Equations
Hyperbolic Functions
Prime Factor of an Integer
Complex Arithmetic
Checkbook Balancing
Compound Interest
Ordinary Annuity 1 & 2
Trend Line Analysis
Permutations & Combinations
Statistical Means & Moments 1 & 2
Random Number Generator
High Pass Active Filter
Low Pass Active Filter
Dead Reckoning
Lunar Landing Game
Diagnostic 1, 2, & 3

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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 prt on the SR-52.

2nd list (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.

The PC-100's trace mode key automatically begins recording all calculations the SR-52 makes. Manually or in run mode. Operations as well as results.

Paper advance can be made on the SR-52 or on the PC-100.

The PC-100 also provides security. You can leave your desk with your SR-52 locked on the PC-100 and take the key with you.

A plastic dust cover protects the PC-100's connectors should the SR-52 be removed. And a permanent standard power cord plugs into any standard 115 volt electrical outlet.

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The SR-60

A card programmable prompting printing calculator designed to bridge the gap between simple desktop calculators and computers. A powerful asset to business and science alike.

Alphanumeric prompting feature used in conjunction with programming, displays words or phrases that "ask" for entries or decisions to solve the problem.

Prerecorded programs are also supplied with the SR-60 (see list). Simple to use. A person merely needs a general concept of what's to be solved to have a solution in seconds. Assistants and secretaries can use prerecorded programs (or programs developed by others) with just a minimum amount of instruction.

Programming is easy. No codes or special rules to learn, so more time can be spent formulating problems. And it's not necessary to learn all functions to write simple programs, although the SR-60 can handle very large programs with its: 40 data memories, 480 program memory locations, 10 flags, 8 branching instructions, 4 subroutine levels, alphanumeric prompting, choice of labels or absolute addressing and direct or indirect addressing. Programs can then be recorded on blank magnetic cards (supplied) for continual use.

Algebraic operating system (AOS) with parentheses solves problems with up to 10 pending operations. Entry is left-to-right just as problems are written. Results displayed up to 10 digits, plus two more for power of 10 exponents.

Quiet electronic printer prints any displayed number, or message on thermal paper for a permanent record. Identifies pertinent data and answers, helps eliminate confusion when analyzing results.

Its 95 keys are functionally organized to preclude memorizing locations. Functions included: Standard math. Trig. Hyperbolics. Logs. Angular and polar/rectangular conversions. Integer x. Percent difference. And constant.

Optional memory expansion available. Increases program capacity up to 1,920 steps and 100 registers. Interface connector allows auxiliary (hardware) to be added any time. AUX is on the keyboard.

Three-wire 120-volt power cord plugs into standard 120-volt outlet. The SR-60 can be operated from 240-volts by placing the voltage switch in the 240-volt position and changing the power cord.

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BASIC LIBRARY OF PRERECORDED PROGRAMS

- Power Transformer Design
- Chebyshev and Butterworth Filter Design
- Add-on Rate Installment Loan
- Compound Interest
- Basic Statistics
- Polynomial Evaluation
- Solution of Cubic and Quadratic Equations
- Diagnostic 1, 2, 3
- Random Number Generator

Over 100 programs are available in the first quarter of 1976 with additional programs planned.

General Purpose Calculators: Calculating and Operating Characteristics

Function	TI-1200	TI-1250	TI-1500	TI-2550 II	TI-5050	TI-5100	TI-620
Digits displayed or printed	8	8	8	8	9(Print)	10	12(Print)
Decimal select: floating	•	•	•	•	•	•	•
preset	–	–	–	2	–	2	0, 1, 2, 4, 6
Automatic constant	•	•	•	•	select	select	select
Memory	–	•	–	•	–	•	•
Automatic sum to memory	–	–	–	–	–	–	•
% key	•	•	•	•	•	•	•
Add mode	–	–	–	–	•	–	•
Roundoff switch	–	–	–	–	–	–	•
Special keys	–	change sign	–	1/x, $\sqrt{x}$,	non-add	Item count	non-add
	–	–	–	x^2, Rev,	–	–	–
	–	–	–	change sign	–	–	–
Printing tape	–	–	–	–	•	–	•

Physical Characteristics: General Purpose and Professionals

	TI-1200	TI-1250	TI-1500	TI-2550 II	TI-5050	TI-5100	TI-620	SR-16 II	SR-50A	SR-51A	SR-52	PC-100	SR-60
Weight	5.5 oz.	5.5 oz.	7 oz.	less than 8 oz.	1 lb. 12 oz.	less than 2 lbs.	8 lbs.	8.3 oz.	8.3 oz.	8.3 oz.	12.3 oz.	7 lbs.	16 lbs.
Size	5.47 x 2.83 x 1.35	5.47 x 2.83 x 1.35	5.0 x 2.6 x 1.0	5.8 x 3.2 x 1.25	8.7 x 3.9 x 2.7	7.75 x 7.595 x 2.5	10.25 x 13.8 x 4.7	5.8 x 3.2 x 1.25	5.8 x 3.2 x 1.25	5.8 x 3.2 x 1.25	6.44 x 3.31 x 1.70	10.5 x 10.3 x 4.0	17 x 14.7 x 5.5
Batteries: Replaceable (not incl.)	•*	•*	–	–	–	–	–	•*	–	–	–	–	–
Rechargeable	–	–	•	•	•	–	–	–	•	•	•	–	–
AC adapter	•*	•*	•	•	•	•	–	•*	•	•	•	–	–
AC operation only	–	–	–	–	–	•	•	–	–	–	–	•	•

*Optional – not included

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Calculating Characteristics: Professionals

Function	SR-16 II	SR-50A	SR-51A	SR-52	SR-60
Log, lnx	•	•	•	•	•
10^x	–	–	•	•	•
e^x	•	•	•	•	•
x^2	•	•	•	•	•
$\sqrt{x}$	•	•	•	•	•
$\sqrt[x]{y}$	–	•	•	•	•
y^x	•	•	•	•	•
1/x	•	•	•	•	•
x!	–	•	•	•	•
%, Δ%	–	–	•	–	•
π	•	•	•	•	•
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	•*	•*

*Programmable functions

Operating Characteristics: Professionals

Function	SR-16II	SR-50A	SR-51A	SR-52	SR-60	PC-100
Digits displayed (mantissa + exponent)	8 + 2	10 + 2	10 + 2	10 + 2	10 + 2	10 + 2 Printed
Calculating digits	10	13	13	12	12	–
Limited precision	–	–	–	–	•	–
Fixed decimal option	–	–	•	•	•	–
Roundoff (Selectable)	–	–	–	–	•	–
Memories:	1	1	3	20	40*	–
Store and Recall	•	•	•	•	•	–
Clear Memory	–	–	•	•	•	–
Sum to Memory	•	•	•	•	•	–
Subtract from Memory	–	–	–	•	•	–
Multiply into Memory	–	–	•	•	•	–
Divide into Memory	–	–	–	•	•	–
Exchange Display with Memory	–	–	•	•	•	–
Indirect memory addressing	–	–	–	•	•	–
Exchange x with y	–	•	•	–	–	–
Parentheses levels	–	–	–	9	9	–
Max. number of pending operations	–	–	–	10	10	–
Constant Mode	Auto	–	Select	–	Select	–
Angular mode (deg/rad)	–	•	•	•	•	–
Entry mode	AOS	AOS	AOS	full AOS	full AOS	–
Second function key	–	–	•	•	•	–
Keys	31	40	40	45	95	3
Printing Functions:						
Print & Paper Advance	–	–	–	•	•	•
Program list	–	–	–	•	•	•
Trace	–	–	–	–	•	•
Compatible with PC-100	–	–	–	•	–	–

*Optional add on for 100 memories

Programming Capability: SR-52, SR-60

Function	SR-52	SR-60
Program steps	224	480*
Merged prefixes	•	–
Program read/write on magnetic cards	•	•
Data memory read/write on magnetic cards	–	•
Alphanumeric display/print	–	•
Program Prompting (Que)	–	•
User-defined keys	10	15
Possible labels	72	77
Absolute addressing	•	•
Indirect addressing	•	•
Subroutine levels	2	4
Program flags	5	10
Conditional branching instructions	10	8
Unconditional branching	•	•
Indirect branching	•	•
Editing: Step	•	•
Back step	•	•
Insert	•	•
Delete	•	•
Single step execution	•	•
Pause	–	•

*Optional add on for 1920 program steps

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Input/output Characteristics: SR-60

General

Calculating digits	
Internal	12 plus sign and 2 exponents plus sign.
Display or print	10 plus sign and 2 exponents plus sign.
Numerical range	$\pm 1. \times 10^{-99}$ to $+9.999999999 \times 10^{99}$
Format	Fixed or Scientific Notation
Overflow, underflow or error conditions	Display flashes: ? Printer prints: ?

Display

Type	Light emitting diodes (LED)
Format	5 by 7 dot matrix, 20 characters max.
Characters*	A through Z
Symbols*	Period, question mark, comma, apostrophe, dollar sign, degree, slash.*

Printer

Type	Thermal electronic
Format	5 by 7 dot matrix, 20 characters max.
Paper	2½ inch thermal
Functions:	
print	yes
program list	yes
data memory list	yes
trace	yes
paper advance	yes

Card Reader

Read into program memory	yes
Read into data memory	yes
Write from program memory	yes
Write from data memory	yes

Auxillary Peripherals

Input/output control	yes

*Other symbols and characters are available by using the mathematical and function keys.