

TEXAS INSTRUMENTS

TI-5100 II DESK CALCULATOR WITH MEMORY

MANUAL

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Datomath Calculator Museum



IMPORTANT

Record the serial number from the bottom of the calculator and the purchase date in the space below. The serial number is identified by the words "SERIAL NO." on the bottom case. Always refer to this information in correspondence.

TI-5100 II

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Model No. Serial No. Purchase Date

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INTRODUCTION

The Texas Instruments TI-5100 II electronic calculator gives you the versatility an active business demands. Its advanced styling and professional appearance complement any office environment, while its solid-state design and durable construction make it light and portable, easily carried in a briefcase. The TI-5100 II is an easy-to-operate calculator designed for use whenever and wherever you need it.

TI invented the integrated circuit, the microprocessor, and the microcomputer. A commitment to innovation and quality is a tradition at Texas Instruments.

FEATURES

Four Memory Functions—Sum to, subtract from, recall, and clear the memory. Store often used numbers or keep a running total of figures without having to write them down and reenter them each time they are needed.

Percent Key—Permits easy calculation of percentages, add-ons, and discounts.

Margin-Up/Down Key—Calculates the selling price of an item when its buying price and profit (or loss) margin are known.

Square Root Key—Computes the square root of any positive number in the display.

Right Shift Key—Corrects mistakes in numerical entries without having to reenter the entire number.

Sigma Switch—Keeps a running total of all calculations by automatically adding all results to the memory.

Automatic Constant—Performs repetitive multiplication and division calculations quickly and easily.

Floating or Fixed Place Decimal—Allows results to be displayed in floating decimal or fixed decimal (0, 2, or 3 places), or to enter and perform calculations in the add mode. Operating in the add mode permits rapid entry of decimal numbers, such as dollars and cents, without having to enter the decimal point.

Easy-to-Read Display—Shows entries and results with up to ten digits and convenient comma punctuation. Special symbols appear to indicate error/overflow conditions and memory operations.

Keyboard—Has oversized and color-coded keys to make the most often used keys easier to find, easier to use.

APD™ Automatic Power Down—Prolongs battery life by automatically turning off the calculator's internal circuitry if the power is left on for approximately 15 to 30 minutes without operating the keys. Pressing [C] returns the calculator to its operative state, with both the calculator and the memory cleared.

Dual Power Supply—Allows operation with two "AA" alkaline batteries or, with the AC adapter included with the calculator, from any standard electrical outlet.

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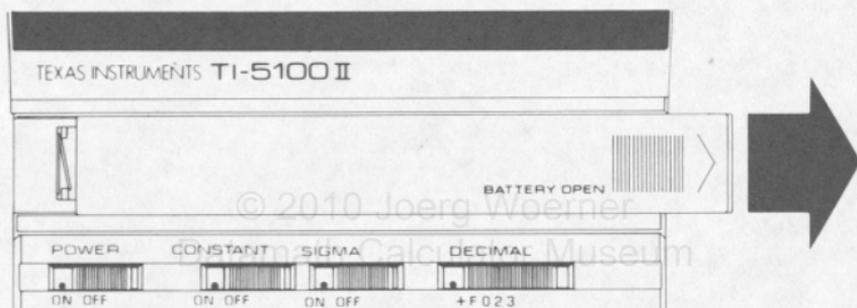
OPERATING INSTRUCTIONS

Using the AC adapter included with the calculator, the TI-5100 II may be operated from any standard electrical outlet. Simply connect the adapter cord to the socket on the end of the calculator, then plug the adapter into any convenient outlet.

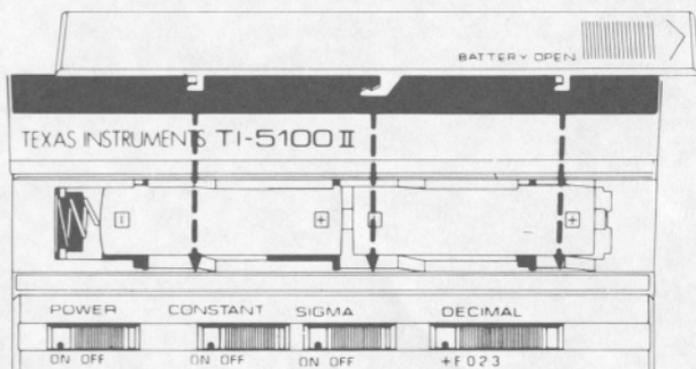
BATTERY INSTALLATION

If an electrical outlet is not readily accessible, the TI-5100 II may also be operated with two "AA" alkaline batteries. The batteries may be installed as follows.

- Slide the battery compartment cover as shown in the illustration. The cover slides to the right about 1/2 inch, then upward. Remove the cover, noticing how the hooks on the bottom of the cover are aligned with the grooves along the battery compartment.



- Position the batteries as indicated.



- Realign the hooks on the cover with the grooves along the battery compartment. Replace the cover by sliding it to the left.

SWITCHES

POWER



POWER Switch—Turns the calculator ON and OFF.

CONSTANT



CONSTANT Switch (ON)—Performs multiplication and division by a constant, without reentering the constant. This switch should be in the OFF position when constant calculations are not required.

SIGMA



SIGMA Switch (ON)—Automatically adds the result of a calculation to the memory each time [\pm] or [\mp] is pressed. This switch should be in the OFF position when the sigma feature is not required.

DECIMAL



DECIMAL Switch—Rounds the result of a calculation to the selected number of decimal places.

- **Add mode (+)**—Automatically enters a decimal point to the left of the last two digits entered and displays all results to two decimal places.
- **Floating decimal mode (F)**—Allows the number of decimal places to vary, depending on the result of the calculation.
- **Fixed decimal mode (0, 2, 3)**—Fixes the number of decimal places to 0, 2, or 3 as selected.

KEY TOUR

Several of the following key descriptions refer to *pending* multiplication and division operations. In a problem such as $4 \times 5 = 20$, simply entering $4 [\times] 5$ does not produce the answer. The operation must first be *completed* by pressing the appropriate key (such as $[\pm]$). Until completed, $4 [\times] 5$ is referred to as a pending operation.

Number Keys [0] - [9], [00]—Enter numbers containing up to ten digits. A zero automatically precedes the decimal for numbers between one and negative one, allowing a maximum of nine digits to the right of the decimal. Attempting to enter additional digits results in an error/overflow condition. Pressing [00] has the same effect as pressing [0] twice.

Decimal Point Key [.]—Enters a decimal point. If a decimal is not entered, the calculator automatically places the decimal point to the right of the entered number. Refer to *The Decimal Switch* section of this manual for decimal positioning when the floating decimal mode is not used.

Add Key $[\pm]$ —Performs addition or completes any pending $[\times]$ or $[\div]$ operation.

Subtract Key $[-]$ —Performs subtraction or completes any pending $[\times]$ or $[\div]$ operation and changes the sign.

Multiply Key $[\times]$ —Completes any pending $[\times]$ or $[\div]$ operation and instructs the calculator to multiply the displayed number by the next entered quantity.

Divide Key $[\div]$ —Completes any pending $[\times]$ or $[\div]$ operation and instructs the calculator to divide the displayed number by the next entered quantity. An error/overflow condition occurs if a number is divided by zero.

Change Sign Key [$+/-$]**—**Changes the sign of the displayed number. A positive number becomes negative, and a negative number becomes positive.

Percent Key [%]**—**Instructs the calculator to use the displayed number as a percent value. The percent key also completes any pending [\times] or [$+$] operation.

Square Root Key [$\sqrt{\quad}$]**—**Calculates the square root of the displayed number. An error/overflow condition occurs if the number is negative.

Sum to Memory Key [$M\pm$]**—**Adds the displayed number to the number stored in memory. Pressing [$M\pm$] also completes any pending [\times] or [$+$] operation and adds the result to memory.

Subtract from Memory Key [$M\mp$]**—**Subtracts the displayed number from the number stored in memory. Pressing [$M\mp$] also completes any pending [\times] or [$+$] operation and subtracts the result from memory.

Memory Recall Key [MR]**—**Recalls (displays) the number stored in memory without affecting the memory contents.

Memory Clear Key [MC]**—**Clears the memory without affecting operations in progress.

Margin-Up/Down Key [$M\%$]**—**Calculates the selling price of an item when the buying price and profit (or loss) margin based on the selling price are known.

Clear Key [C]**—**Clears the display, any pending operation, and the automatic constant. Pressing [C] also clears the calculator from an error/overflow condition. The clear key does not affect the memory contents.

Clear Entry Key [CE]**—**When pressed immediately following a number entry, clears the entered number and allows another number to be entered in its place.

Shift Right Key [→]—When pressed immediately following a number entry, deletes the rightmost digit from the displayed number and allows another digit to be entered in its place.

Exchange Key [EX]—Exchanges the dividend and divisor in a pending division operation. For example, $4 [+] 2$ becomes $2 [+] 4$. Pressing [EX] when the CONSTANT switch is ON displays the number in the automatic constant register.

DISPLAY INDICATORS

Power On—The presence of digits in the display indicates that power is on.

Minus Sign—Appears on the left side of the display to indicate a negative number.

Decimal Point—Automatically appears to the right of an entered number unless positioned elsewhere with the [.] key or the DECIMAL switch. A zero precedes the decimal for numbers between one and negative one, allowing a maximum of nine digits to the right of the decimal, for a total of ten digits.

Memory Indicator—An "M" appears on the left side of the display whenever a non-zero number is stored in memory. The calculator normally has a zero in memory when it is first turned on.

Error/Overflow Indicator—An "—" appears on the left side of the display for any of the following reasons.

1. You attempted to divide by zero.
2. You attempted to find the square root of a negative number.
3. You attempted to enter more than ten digits into the display.
4. The result of a calculation has more than ten digits to the left of the decimal.
5. The total in memory has more than ten digits to the left of the decimal.

See "Error/Overflow Conditions."

SAMPLE PROBLEMS

Performing calculations on the TI-5100 II is easy—just enter numbers and functions in the same logical sequence as on most standard business machines. The following examples are designed to acquaint you with each function of the calculator. Though you may already be familiar with many of the functions, working the examples will help you gain confidence in using your TI-5100 II.

ADDITION AND SUBTRACTION

Set switches: CONSTANT (OFF), SIGMA (OFF), DECIMAL (F)

Example: $4.235 + 4 = 8.235$

Enter	Press	Display
	[C]	0.
4.235	[+]	4.235
4	[+]	8.235

Example: $6 - 1.854 = 4.146$

Enter	Press	Display
	[C]	0.
6	[+]	6.
1.854	[=]	4.146

Example: $12.32 - 7 + 1.6 = 6.92$

Enter	Press	Display
	[C]	0.
12.32	[+]	12.32
7	[=]	5.32
1.6	[+]	6.92

MULTIPLICATION AND DIVISION

Set switches: CONSTANT (OFF), SIGMA (OFF), DECIMAL (F)

Example: $27.2 \times 18 = 489.6$

Enter	Press	Display
	[C]	0.
27.2	[×]	27.2
18	[±]	489.6

Example: $(4 \times 7.3) \div 2 = 14.6$

Enter	Press	Display
	[C]	0.
4	[×]	4.
7.3	[+]	29.2
2	[±]	14.6

ENTERING NEGATIVE NUMBERS

A negative sign is assigned to a number by pressing the [+/-] key directly *after* entering the number.

Set switches: CONSTANT (OFF), SIGMA (OFF), DECIMAL (F)

Example: $7 \times (-18.5) = -129.5$

Enter	Press	Display
	[C]	0.
7	[×]	7.
18.5	[+/-] [±]	- 129.5

Example: $(-125) \div 5 = -25$

Enter	Press	Display
	[C]	0.
125	[+/-] [+]	- 125.
5	[±]	- 25.

MIXED CALCULATIONS

With the CONSTANT switch in the OFF position, mathematical operations can be performed with combinations of addition, subtraction, multiplication, and division. All arithmetic functions are completed in the order in which they are entered.

Set switches: CONSTANT (OFF), SIGMA (OFF), DECIMAL (F)

Example: $12 \times 13 \div 14 + 15 - 16 = 10.14285714$

Enter	Press	Display
	[C]	0.
12	[\times]	12.
13	[\div]	156.
14	[\pm]	11.14285714
15	[\pm]	26.14285714
16	[$=$]	10.14285714

Example: $8.3 + 2 \div 4 - 6.8 = -4.225$

Enter	Press	Display
	[C]	0.
8.3	[\pm]	8.3
2	[\pm] [\div]	10.3
4	[\pm]	2.575
6.8	[$=$]	- 4.225

CORRECTING ENTRY ERRORS

You may occasionally enter an incorrect number or arithmetic function. At any point in a calculation, pressing [C] allows you to clear the calculator and begin again. However, in many instances those errors may be corrected without clearing the calculator.

If you notice an incorrect numerical entry *before any other keys have been pressed*, there are two simple ways to correct the error. The first way is to press [CE] to clear the entry. You may then enter the correct number and continue the problem.

Set switches: CONSTANT (OFF), SIGMA (OFF), DECIMAL (F)

Example: $49.01 + 16.55 = 65.56$

Enter	Press	Display
	[C]	0.
49.01	[\pm]	49.01
13.55*	[CE]	0.
16.55	[\pm]	65.56

* 13.55 was accidentally entered.

The second way to correct an entry error is to use the [←] key. Pressing [←] deletes the rightmost *digit* and allows another digit to be entered in its place. This is ideal if the error is in one of the last digits of the entry or if too many digits were entered.

Example: $49.01 + 16.55 = 65.56$

Enter	Press	Display
	[C]	0.
49.04*	[←]	49.0
1	[±]	49.01
16.555**	[←]	16.55
	[±]	65.56

* 49.04 was accidentally entered.

** An extra 5 was accidentally entered.

Unwanted entries can also be effectively eliminated from the total after the [±] or [−] operation by simply using the opposite operation to cancel the effect of the unwanted entry.

Example: $49.01 + 16.55 = 65.56$

Enter	Press	Display
	[C]	0.
49.01	[±]	49.01
13.55	[±]*	62.56
13.55	[−]	49.01
16.55	[±]	65.56

* [±] was pressed before the incorrect entry of 13.55 was noticed.

ERROR/OVERFLOW CONDITIONS

An error/overflow condition is indicated by an "—" in the display, and occurs for any of the following reasons.

1. You attempted to divide by zero: "—" and "0." are displayed.
2. You attempted to find the square root of a negative number: "—" and the negative value of the correct answer are displayed.
3. You attempted to enter more than ten digits into the display: "—" and the first ten digits entered are displayed.
4. The result of a calculation has more than 10 digits to the left of the decimal: "—" and the first ten digits of the answer (without commas) are displayed, with a decimal point appearing ten places to the left of its correct position. To determine the correct position of the decimal point, mentally move it ten places to the right, inserting zeros as required.
5. The total in memory has more than 10 digits to the left of the decimal: "—", "M", and "0." are displayed.

Pressing [C] always clears the calculator and any error/overflow condition, without affecting the memory. Therefore, for a memory overflow, [C] clears only the last entry which caused the overflow. The number stored in memory is then the number stored prior to the overflow condition. If you wish to clear the memory, press [MC].

Set switches: CONSTANT (OFF), SIGMA (OFF), DECIMAL (F)

Example: $9,999,999,999 + 35 = 10,000,000,034$ (Non-memory Overflow)

Enter	Press	Display
	[C]	0.
9999999999	[±]	9,999,999,999.
35	[±]	— 1.000000003
	[C]	0.

Notice that the correct answer is truncated to ten digits.

Example: $9,999,999,999 + 65 = 10,000,000,064$ (Memory Overflow)

Enter	Press	Display
	[C] [MC]	0.
999999999999	[M ±]	M9,999,999,999.
65	[M ±]	M
	[C]	M 0.
	[MR]	M9,999,999,999.

Notice that pressing [C] clears the error/overflow condition, but leaves the memory contents as they were prior to the error/overflow condition.

THE CONSTANT SWITCH

The CONSTANT switch increases the flexibility of the TI-5100 II by allowing you to multiply or divide a series of numbers by a constant. When the CONSTANT switch is in the ON position, the number entered *before* the [\times] key or *after* the [\div] key is retained as a constant multiplier or divisor.

The calculator is designed to look for the sequence of a number entry followed by the [\pm] key. When this sequence is found, the calculator uses the constant number and function to complete the calculation.

The constant is automatically replaced when a new problem is entered or when [C] is used to clear the calculator.

Set switches: CONSTANT (ON), SIGMA (OFF), DECIMAL (F)

Example: $4 \times 5 = 20$

$$\underline{4 \times 6 = 24}$$

$$\underline{4 \times 7 = 28}$$

Enter	Press	Display
	[C]	0.
4	[\times]	4.
5	[\pm]	20.
6	[\pm]	24.
7	[\pm]	28.

Example: $104 \div 2 = 52$

$$\underline{-20 \div 2 = -10}$$

$$\underline{44 \div 2 = 22}$$

Enter	Press	Display
	[C]	0.
104	[\div]	104.
2	[\pm]	52.
20	[+/-] [\pm]	- 10.
44	[\pm]	22.

When you wish to display the number in the automatic constant register, press [EX]. This displays the constant and places the previously displayed number into the constant register. However, if you wish to continue using the same constant, remember to press [EX] a second time, before continuing your calculations.

THE DECIMAL SWITCH

The calculator always powers up using the number of decimals to which the DECIMAL switch is set. The previous examples have been performed using the floating decimal mode (F). This allows the number of decimal places to be determined by the result of the calculation.

Add Mode (+)

The add mode is convenient for the rapid entry of a series of numbers requiring two decimal places. For example, dollars and cents may be entered without using the [.] key—a considerable savings in keystrokes if you work with financial calculations.

Set switches: CONSTANT (OFF), SIGMA (OFF), DECIMAL (+)

Example: $\$3.13 + \$0.05 + \$4.56 + \$6.00 = \$13.74$

Enter	Press	Display
	[C]	0.
313	[±]	3.13
5	[±]	3.18
456	[±]	7.74
600	[±]	13.74

You may override the add mode for individual entries by simply entering a decimal point where desired. If more than two digits are entered after the decimal point, the number is rounded to two decimal places when summed or subtracted.

Fixed Decimal Mode (0, 2, 3)

Set the DECIMAL switch to the number of decimal places desired (0, 2, 3). In addition or subtraction operations, the format of the displayed number is changed to the selected number of decimal places whenever [=] or [-] is pressed. In multiplication and division operations, the format of the displayed number is not changed until [=], [-], or [%] is pressed.

Set switches: CONSTANT (OFF), SIGMA (OFF), DECIMAL (2)

Example: $(4.5 \times 3 - 3.5) \div 3 = 3.33$

Enter	Press	Display
	[C]	0.
4.5	[×]	4.5
3	[±]	13.50
3.5	[=] [+]	10.00
3	[±]	3.33

In the fixed decimal mode, roundoff occurs at every step producing more than the set number of decimal places. For maximum accuracy, set the DECIMAL switch to F and round off only the final answer.

THE SIGMA SWITCH

When the SIGMA switch is in the ON position, the result of a calculation is automatically added to the contents of memory each time the [=] or [-] key is pressed. This provides you with a running total of all calculations performed. The total is displayed by pressing [MR].

Set switches: CONSTANT (OFF), SIGMA (ON), DECIMAL (2)

Example: $\$4.00 + (10 \times \$6.50) + (\$8.00 \div 2) = \73.00

Enter	Press	Display	Memory
	[C] [MC]	0.	0.
4	[±] M	4.00	4.
10	[×] M	10.	4.
6.5	[±] M	65.00	69.
8	[÷] M	8.	69.
2	[±] M	4.00	73.
	[MR] M	73.00	73.

This problem could also be done without the sigma feature by summing all results directly to the memory, substituting [M±] for [=]. However, during the rapid-entry of a series of calculations, the [=] key is more convenient to use.

THE PERCENT KEY

The percent key can be a time-saver when percentages, add-ons, discounts, or percentage ratios are calculated. When the percent key completes a multiplication problem, a percentage is calculated.

Set switches: CONSTANT (OFF), SIGMA (OFF), DECIMAL (2)

Example: $\$1,250.00 \times 6\% = \75.00

Enter	Press	Display
	[C]*	0.
1250	[×]	1,250.
6	[%]	75.00

*If you are working the examples in sequence, "M" may appear in the display from the previous example. The "M" may be ignored since this example does not use the memory. However, if you wish to clear the memory, press [MC].

Example: $(\$17.00 + \$32.00 - \$8.00) \times 15\% = \6.15

Enter	Press	Display
	[C]	0.
17	[+]	17.00
32	[+]	49.00
8	[-] [×]	41.00
15	[%]	6.15

In the above examples, notice that [%] completes the operation.

Percentage Add-on or Discount

When the [\pm] or [\mp] key is pressed following a percentage calculation, the percentage is automatically added to or subtracted from the principal amount.

Set switches: CONSTANT (OFF), SIGMA (OFF), DECIMAL (2)

Example: $\$1,450 + 15\%$ add-on = $\$1,667.50$

Enter	Press	Display
	[C]	0.
1450	[\times]	1,450.
15	[%]	217.50
	[\pm]	1,667.50

Example: $\$69.95 - 10\%$ discount = $\$62.95$

Enter	Press	Display
	[C]	0.
69.95	[\times]	69.95
10	[%]	7.00
	[\mp]	62.95

Notice that [\pm] completes the add-on calculation and [\mp] completes the discount calculation.

Percentage Ratios

When the percent key completes a division problem, the percentage ratio of one number to another is calculated.

Set switches: CONSTANT (OFF), SIGMA (OFF), DECIMAL (2)

Example: $\$750$ is what percentage of $\$1,000$?

Enter	Press	Display
	[C]	0.
750	[\div]	750.
1000	[%]	75.00

Example: $\$29.50$ is what percent of $\$25$?

Enter	Press	Display
	[C]	0.
29.5	[\div]	29.5
25	[%]	118.00

Percentage Constants

For percentage calculations, the automatic constant uses the number before [\times], permitting variation of the percentage which is after the function.

Set switches: CONSTANT (ON), SIGMA (OFF), DECIMAL (2)

Example: Find 2%, 15%, and 25% of \$495.

Enter	Press	Display
	[C]	0.
495	[\times]	495.
2	[%]	9.90
15	[%]	74.25
25	[%]	123.75

Example: Find the results of adding 5%, 6%, and 10% to \$19.95.

Enter	Press	Display
	[C]	0.
19.95	[\times]	19.95
5	[%]	1.00
	[\pm]	20.95
6	[%]	1.20
	[\pm]	21.15
10	[%]	2.00
	[\pm]	21.95

THE MARGIN-UP/DOWN KEY

The margin-up/down key [M_{\updownarrow}] calculates the selling price of an item when the buying price and the profit (or loss) margin based on the selling price are known. This key is commonly used with gross profit margin (GPM) calculations.

The selling price is calculated according to the following formulas.

$$\text{Margin-Up: } \frac{A}{1 - (B/100)} \qquad \text{Margin-Down: } \frac{A}{1 + (B/100)}$$

where A = the buying price

B = the profit or loss margin

To key in the problem, enter the buying price, press [+], enter the profit or loss margin (be sure to enter the loss margin as a negative number), and press [M_{\updownarrow}].

Set switches: CONSTANT (OFF), SIGMA (OFF), DECIMAL (2)

Example: Buying Price = \$65

Profit Margin = 40%

Selling Price?

Enter	Press	Display
65	[C]	0.
40	[+]	65.
	[M_{\updownarrow}]	108.33

Example: Buying Price = \$35,000

Loss Margin = - 33.3%

Selling Price?

Enter	Press	Display
35000	[C]	0.
33.3	[+]	35,000.
	[+/-]* [M_{\updownarrow}]	26,256.56

* Pressing [+/-] enters the loss margin as a negative number.

THE SQUARE ROOT KEY

The square root key [$\sqrt{\quad}$] calculates the square root of any positive number in the display. This key acts on the displayed number *immediately* and does not need to be completed by pressing [\pm] or any other key. If the displayed number is negative, an error condition occurs.

Set switches: CONSTANT (OFF), SIGMA (OFF), DECIMAL (F)

Example: $\sqrt{6.25} = 2.5$

Enter	Press	Display
	[C]	0.
6.25	[$\sqrt{\quad}$]	2.5

Notice that [$\sqrt{\quad}$] completes the operation.

Example: $3 + \sqrt{2} = 4.414213562$

Enter	Press	Display
	[C]	0.
3	[\pm]	3.
2	[$\sqrt{\quad}$]	1.414213562
	[\pm]	4.414213562

Notice that the square root of 2 is calculated immediately. Pressing [\pm] completes the addition, not the square root.

USING THE MEMORY

To clear an overflow condition from the memory, press [C]. This clears only the last entry which caused the overflow. The number stored in memory is then the number entered prior to the overflow condition. If you wish to clear the memory, press [MC].

Pressing [MC] does not affect operations in progress. Therefore, the display retains the previously displayed number, and is unaffected by clearing the memory.

IMPORTANT: Remember, the [M+] key adds to and the [M-] key subtracts from the number already in memory. It is a good practice to press [MC] or check that the "M" symbol is not displayed when beginning a new problem which uses the memory.

Set switches: CONSTANT (OFF), SIGMA (OFF), DECIMAL (F)

Example: $88 + 16 + 16 - 32 = 88$

Enter	Press	Display	Memory
	[C] [MC]	0.	0.
88	[M+] M	88.	88.
16	[M+] M	16.	104.
	[M+] M	16.	120.
32	[M-] M	32.	88.
	[MR] M	88.	88.

Example: $(3.2 \times 6) + 15 - (9 \div 2.5) = 30.6$

Enter	Press	Display	Memory
	[C] [MC]	0.	0.
3.2	[x]	3.2	0.
6	[M+] M	19.2	19.2
15	[M+] M	15.	34.2
9	[÷] M	9.	34.2
2.5	[M-] M	3.6	30.6
	[MR] M	30.6	30.6

ADDITIONAL EXAMPLES

Raising a Number to a Power

The displayed number may be easily raised to any whole number power. First, press $[\times]$. Then press $[\pm]$ the same number of times as the power, less one. Notice that if the power is greater than two, the CONSTANT switch must be set to the ON position.

Set switches: CONSTANT (ON), SIGMA (OFF), DECIMAL (F)

Example: $4^3 = 64$

Enter	Press	Display
	[C]	0.
4	$[\times]$	4.
	$[\pm]$	16.
	$[\pm]$	64.

Since the power was 3, the $[\pm]$ key was only pressed twice.

NOTE: If you are squaring the displayed number (raising it to the second power), the setting of the constant switch is optional.

Set switches: CONSTANT (OPTIONAL), SIGMA (OFF), DECIMAL (F)

Example: $26^2 = 676$

Enter	Press	Display
	[C]	0.
26	$[\times]$ $[\pm]$	676.

Example: $(5 + 4)^2 = 81$

Enter	Press	Display
	[C]	0.
5	$[\pm]$	5.
4	$[\pm]$	9.
	$[\times]$ $[\pm]$	81.

Reciprocals

The reciprocal of the displayed number (the displayed number divided into 1) may be calculated by pressing [+] [$\frac{1}{\square}$].

Set switches: CONSTANT (OFF), SIGMA (OFF), DECIMAL (F)

Example: $1/25 = 0.04$

Enter	Press	Display
25	[C] [+] [$\frac{1}{\square}$]	0. 0.04

Example: $\frac{1}{(2 \times 3) + 14} = 0.05$

Enter	Press	Display
2	[C]	0.
3	[\times]	2.
14	[+] [$\frac{1}{\square}$]	6. 20.
	[+] [$\frac{1}{\square}$]	0.05

If you wish to divide the displayed number into a number other than one, the [EX] key is more convenient to use. Press [+], enter the number you wish to divide into, then press [EX] [$\frac{1}{\square}$].

Example: $\frac{5}{(2 \times 3) + 14} = 0.25$

Enter	Press	Display
2	[C]	0.
3	[\times]	2.
14	[+] [$\frac{1}{\square}$]	6. 20.
5	[EX] [$\frac{1}{\square}$]	0.25

Product of Sums

Set switches: CONSTANT (OFF), SIGMA (OFF), DECIMAL (F)

Example: $(2 + 3) \times (4 + 5) = 45$

Enter	Press	Display	Memory
	[C] [MC]	0.	0.
2	[+] [$\frac{1}{\square}$]	2.	0.
3	[+] [M+] [C]	5.	5.
	[C]	0.	5.
4	[+] [$\frac{1}{\square}$]	4.	5.
5	[+] [$\frac{1}{\square}$] [\times] [MR]	9. 5.	5.
	[+] [$\frac{1}{\square}$]	45.	5.

Division by a Sum

Set switches: CONSTANT (OFF), SIGMA (OFF), DECIMAL (F)

Example: $\frac{1250 + 250}{15 + 25 + 35} = 20$

Enter	Press	Display	Memory
	[C] [MC]	0.	0.
15	[±]	15.	0.
25	[±]	40.	0.
35	[±] [M ±]	M 75.	75.
	[C]	M 0.	75.
1250	[±]	M 1,250.	75.
250	[±] [+]	M 1,500.	75.
	[MR] [±]	M 20.	75.

Sum of Products

Set switches: CONSTANT (OFF), SIGMA (OFF), DECIMAL (2)

Example: $4 \times \$11.99 = \47.96
 $6 \times 2.97 = 17.82$
 $12 \times 0.98 = 11.76$
 Total = \$77.54

Enter	Press	Display	Memory
	[C] [MC]	0.	0.
4	[×]	4.	0.
11.99	[M ±]	M 47.96	47.96
6	[×]	M 6.	47.96
2.97	[M ±]	M 17.82	65.78
12	[×]	M 12.	65.78
.98	[M ±]	M 11.76	77.54
	[MR]	M 77.54	77.54

Sum of Quotients

Set switches: CONSTANT (OFF), SIGMA (OFF), DECIMAL (2)

Example: $\frac{\$1.98}{4} + \frac{\$2.27}{2} + \frac{\$4.98}{8} = \2.26

Enter	Press	Display	Memory
	[C] [MC]	0.	0.
1.98	[+]	1.98	0.
4	[M ±]	M 0.50	0.50
2.27	[+]	M 2.27	0.50
2	[M ±]	M 1.14	1.64
4.98	[+]	M 4.98	1.64
8	[M ±]	M 0.62	2.26
	[MR]	M 2.26	2.26

SERVICE INFORMATION

IN CASE OF DIFFICULTY

1. Be sure the AC adapter is connected properly or the batteries are installed correctly, and the POWER switch is ON.
2. If the display becomes dim or erratic while the calculator is operating with batteries, replace the batteries.
3. If the difficulty involves calculation errors or the calculator does not respond to keyboard entries:
 - a. Press [C] [MC] and the calculator should display "0." Check the switch settings and repeat the calculations.
 - b. Set the POWER switch to OFF for ten seconds and back ON again. Repeat the calculations.
 - c. Review the operating instructions to be certain that calculations have been performed in the manner described in this book. Improper key sequences and improper switch positioning may result in incorrect answers.

If none of the above procedures corrects the difficulty, return the calculator PREPAID to the applicable Texas Instruments Consumer Service Facility listed on the back cover.

NOTE: The P.O. box number listed for the Lubbock Service Facility is for United States parcel post shipments only. If you desire to use another carrier, the street address is

Texas Instruments Incorporated
2305 N. University Ave.
Lubbock, Texas 79415

For your protection, the calculator should be sent insured. Texas Instruments cannot assume any responsibility for loss of or damage to uninsured shipments.

Please include information concerning the difficulty experienced with the calculator and return address information—name, address, city, state and zip code. The shipment should be carefully packaged and adequately protected against shock and rough handling.

IF YOU NEED SERVICE INFORMATION

If you need service information for your calculator, write Consumer Relations at

Texas Instruments Incorporated
P.O. Box 53
Lubbock, Texas 79408

or call Consumer Relations at (806) 741-4800. We regret that we cannot accept collect calls at this number.

CALCULATOR EXCHANGE CENTERS

If your calculator requires service, instead of returning the unit to your dealer or to a service facility for repair, you may elect to exchange the calculator for a factory-reconditioned calculator of the SAME MODEL (or equivalent model specified by TI) by bringing the calculator in person to one of the exchange centers which have been established across the United States. No charge will be made for the exchange with proof-of-purchase during the first 90 days. The exchanged unit will be in warranty for the remainder of the original warranty period or for 6 months, whichever is longer. A HANDLING FEE WILL BE CHARGED FOR EXCHANGE AFTER 90 DAYS FROM THE DATE OF PURCHASE. Out-of-warranty exchanges will be charged at the rates in effect at the time of the exchange. To determine if there is an exchange center in your locality, look for Texas Instruments Incorporated Exchange Center in the white pages of your telephone directory or look under the Calculator and Adding Machine heading in the yellow pages. Please call the exchange center to check for the availability of your model. Write the Consumer Relations Department for further details and the location of the nearest exchange center.

ONE-YEAR LIMITED WARRANTY

THIS TEXAS INSTRUMENTS CONSUMER WARRANTY EXTENDS TO THE ORIGINAL CONSUMER PURCHASER OF THE PRODUCT.

WARRANTY DURATION: This Texas Instruments calculator is warranted to the original consumer purchaser for a period of one year from the original purchase date.

WARRANTY COVERAGE: This Texas Instruments calculator is warranted against defective materials or workmanship. **THIS WARRANTY IS VOID IF THE PRODUCT HAS BEEN DAMAGED BY ACCIDENT, UNREASONABLE USE, NEGLIGENCE, IMPROPER SERVICE OR OTHER CAUSES NOT ARISING OUT OF DEFECTS IN MATERIAL OR WORKMANSHIP.**

WARRANTY DISCLAIMERS: ANY IMPLIED WARRANTIES ARISING OUT OF THIS SALE, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED IN DURATION TO THE ABOVE ONE YEAR PERIOD. TEXAS INSTRUMENTS SHALL NOT BE LIABLE FOR LOSS OF USE OF THE CALCULATOR OR OTHER INCIDENTAL OR CONSEQUENTIAL COSTS, EXPENSES, OR DAMAGES INCURRED BY THE CONSUMER OR ANY OTHER USER.

Some states do not allow the exclusion or limitation of implied warranties or consequential damages, so the above limitations or exclusions may not apply to you.

LEGAL REMEDIES: This warranty gives you specific legal rights, and you may also have other rights that vary from state to state.

WARRANTY PERFORMANCE: During the above one year warranty period, your TI calculator will either be repaired or replaced with a reconditioned comparable model (at TI's option) when the calculator is returned, postage prepaid, to a Texas Instruments Service Facility.

The repaired or replacement calculator will continue the warranty of the original unit or six months, whichever is longer. Other than the postage requirement, no charge will be made for such repair or replacement of in-warranty calculators.

TI strongly recommends that you insure the product for value prior to mailing.

TEXAS INSTRUMENTS CONSUMER SERVICE FACILITIES

U. S. Residents:

Texas Instruments Service Facility
P.O. Box 2500
Lubbock, Texas 79408

Canadian Residents only:

Geophysical Services Incorporated
41 Shelley Road
Richmond Hill, Ontario, Canada L4C5G4

Consumers in California and Oregon may contact the following Texas Instruments offices for additional assistance or information.

Texas Instruments Consumer Service
831 South Douglas Street
El Segundo, California 90245
(213) 973-1803

Texas Instruments Consumer Service
6700 Southwest 105th
Kristin Square, Suite 110
Beaverton, Oregon 97005
(503) 643-6758



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