Electronic Calculator

F-10

Canon Canola F-10 Instructions English Edition

The Canola F-10 is a product of Canon's advanced micro-electronic technology and human engineering and is designed to guarantee many years of reliable service. To make sure of taking full advantage of its many special features, please read the instructions and work through the examples given in this manual before use.

Contents

I. BEFORE STARTING CALCULATIONS

1. Specifications

Type:

Desk-top electronic calculator with function keys

Keyboard:

10-key system

Display:

12-digit segment planar display

Registers:

Six calculating registers and one memory register

Calculation capacity (Digit):

	Numeral to be calcu-lated	Calculat-ing numeral	Result (max.)
Addition, subtraction, multiplication and division	12	12	12
Calculations of functions	12	12	12

Calculation accuracy of functions:

Minimum 10 digits

Types of calculation:

Addition, subtraction, multiplication and division. Multiplication and division by a constant. Various calculations involving functions.

Calculation speed:

Addition and subtraction	0.08 second
Multiplication	0.15 second
Division	0.16 second
Calculations of functions	1.00 second

Negative numbers:

True value indication with a floating minus sign.

Decimal point system:

Entries: floating

Intermediate results: floating

Results: fixed (Can be preselected at 0, 1, 2, 3, 4, 5, 6.)

floating

Indication functions:

Zero-suppressed indication panel

Punctuation at every 3 digits

Memory lamp

Floating minus indication

Overflow indication

Automatic functions:

Automatic constant calculation system

Automatic rounding off, rounding up and rounding down of results

Leftmost digit priority system

Floating decimal point system

Safety devices:

Interlock device when numerals are overflowed.

Electronic double entry prevention and interlock device

Automatic clearing circuit for immediate use

Elements:

MOS-LSIs

Power source:

AC 100/115 V (−15% to +10%) 50/60 Hz 10 W

AC 220/240 V (−15% to +10%) 50/60 Hz 10 W

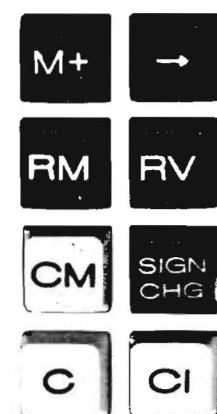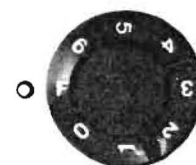**Usable temperature:**

0°C to 40°C (32°F to 104°F)

Size:

260mm wide x 290mm deep x 97mm high (10-1/4" x 11-7/16" x 3-13/16")

Weight:

2.7 kg (5 lbs. 14 oz.)

Subject to alterations.

2. Keys and Controls

Power Switch

When this is turned ON, all circuits are automatically cleared and it is ready for operation.

$\boxed{0}$ – $\boxed{9}$ **Numeral Keys**

Used for entering numerals.

$\boxed{\cdot}$ **Decimal Point Key**

Used for entering decimal point.

$\boxed{+}$ **Plus Key**

Used for performing addition.

$\boxed{-}$ **Minus Key**

Used for performing subtraction.

$\boxed{\times}$ **Multiplication Key**

Used for performing multiplication.

$\boxed{\div}$ **Division Key**

Used for performing division.

$\boxed{=}$ **Equal Key**

Used for obtaining calculating results.

Sign Change Key

Used for converting signs of the indicated value.

M+ Plus-Memory Key

Used for adding the displayed numerals to the memory.

RM Recall Memory Key

Used for recalling the contents of the memory.

$\boxed{C}$ **Clear Key**

Used for clearing all registers except memories.

$\boxed{CI}$ **Clear Indicator Key**

Used for clearing displayed numerals. It is used for correcting an entry as a whole.
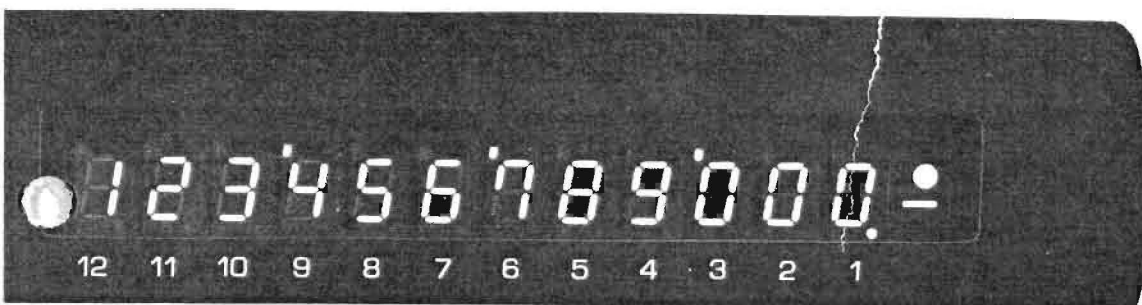
$\boxed{CM}$ **Clear Memory Key**

Used for clearing the contents of the memory.

→ Shift Key

Used for shifting a displayed numeral by one digit in the direction of the arrow.

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Used in the following cases:

(1) To correct a numeral entered by mistake. For example, if 233 has been mistakenly entered as 232, depress the **→** key and re-enter 3.

(2) In the case of double entry, the next digit cannot be entered. Therefore, shift down one digit with the **→** key and re-enter.

RV Reverse Key

Used for interchanging a numeral to be calculated and a calculating numeral, such as the multiplicand and the multiplier in multiplications and dividend and divisor in divisions.

sin Sine Key

Used for finding a sine value of the displayed contents.

cos Cosine Key

Used for finding a cosine value of the displayed contents.

tan Tangent Key

Used for finding a tangent value of the displayed contents.

arc Arc Key

Used for finding an arc-sine, arc-cosine, or arc-tangent value of the displayed contents. This key is used in combination with the **sin**, **cos**, or **tan** key.

ln Natural Logarithm Key

Used for finding a natural logarithmic value of the displayed contents.

log Common Logarithm Key

Used for finding a common logarithmic value of the displayed contents.

e^x Exponential Key

Used for finding an exponent of the displayed contents.

a^x Power Key

Used for finding x power of a. This key is a

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double-function key, and it is required to depress this key after entry of a and again after entry of x. x can be any real number, and a can be any positive real number.

a^2 Square Key

Used for finding a square of the displayed contents.

√ Square Root Key

Used for finding a square root of the displayed contents.

$\sqrt[3]{}$ Cube Root Key

Used for finding a cube root of the displayed contents.

$a^{\circ\,\prime\prime}$ Decimal Degree Key

Used for converting a value in degree/minute/second into a value in decimal degree. A value to be converted should be entered as $xx.yy\,zz$ (x, degree; y, minute; z, second).

DEG Degree Key

Used for converting a value in radian into a value in degree.

RAD Radian Key

Used for converting a value in degree into a value in radian.

REC Rectangular Key

Used for converting r and θ of polar coordinates into x and y of rectangular coordinates. Depress this key after entry of r and then enter θ and depress this key again to find x; depress this key once more again to find y.

POL Polar Key

Used for converting x and y of rectangular coordinates into r and θ of polar coordinates. Depress this key after entry of x and then enter y and depress this key again to find r; depress this key once more again to find θ.

Round-Off Switch

Used for round-up, round-off or round-down to the preselected decimal digits of the results. Rounding is performed, according to designation, at the stage of obtaining the final result. Set the switch to the left for rounding up, to the center for rounding off, and to the right for rounding down.

Decimal Point Selector

Used for designating the decimal point position in the calculation result. Designated settings are 0, 1, 2, 3, 4, 5, 6 and F (floating) positions below the decimal point.

Overflow Lamp

Lights up in the following cases, preventing further entries or calculations.

(1) When the entered numeral overflows: Lights up when the 13th digit is entered. Depress the ➡ key to shift down by 1 digit and resume calculation.

(2) When double entry is mistakenly made: Depress the ➡ key to shift down by 1 digit and make a re-entry.

(3) When the calculation result overflows: The overflow lamp lights up when the integers of the results exceeds the 12th digit. In this case, clear with the C key.

(4) When the memory overflows: The overflow lamp lights up when the integers of the memory content exceeds the 12th digit. In this case, clear with the CM key.

○ Memory Lamp

This lamp lights up when data is entered in the memory and indicates that the memory is in use.

Minus Sign

This sign is displayed immediately in front of the displayed numeral when it becomes a negative number.

When the full 12 digits are displayed, the minus sign is indicated at the right-most of the display panel; when the number of display digits is less than 12, the minus sign is displayed floatingly just before the displayed figure.

$\mathbb{I}$ 3-Digit Automatic Punctuation Lamps

They automatically light to mark off displayed figures into groups of 3 digits, starting from the decimal point.

3. Precautions in Operation

Depressing of Keys

Depress the keys accurately. If two keys are depressed simultaneously, the overflow lamp lights.

Key Operation

For right hand operation, place the index finger on the key 4 , the middle finger on the key 5 and the third finger on the key 6 . Make a habit of keeping your fingers in these positions. Thus, depress the left column keys 1 4 7 with the index finger, the middle column keys 2 5 8 with the middle finger, and the right column keys 3 6 9 with the third finger. With practice, blind operation will soon become possible.

Notes:

1) Always depress the C key after randam operation.

2) Remove the cover during operation, and take care not to block the ventilation holes at the top and bottom of the calculator.

3) Do not use the calculator in direct sunlight.

II. CALCULATION

1. Ordinary Calculations

1-1. Addition and Subtraction

Setting •**3** ▉**0**
└ 5/4 ┐

Calculation example	Key operation	Display
12.34 + 1.5 + 8.765 − 4.91 = 17.695	12.34 $\boxed{+}$ 1.5 $\boxed{+}$ 8.765 $\boxed{-}$ 4.91 $\boxed{=}$	17.695

(1) The setting of the decimal point selector affects only the final result. At entry and in intermediate results, the position of the decimal point is floating, and numerals with more than the designated number of decimal digits can be registered as they stand.

1-2. Multiplication

Setting •**4** ▉**0**
└ 5/4 ┐

Calculation example	Key operation	Display
123.456 x 789.456 x 456.123 = 44,455,152.4096	123.456 $\boxed{\times}$ 789.456 $\boxed{\times}$ 456.123 $\boxed{=}$	44'455'152.4096
456.78 x (−12.862) = −5,875.1044	456.78 $\boxed{\times}$ 12.862 $\boxed{\blacksquare}$ $\boxed{=}$	−5'875.1044

(1) The negative numbers are entered with the ▉ key.

(2) If the number of digits in the result exceeds (12 − decimal point preselected digit), the leftmost digit priority system functions and excess digits at the right are dropped.

1-3. Division

Setting •**F** ▉**0**
└ 5/4 ┐

Calculation example	Key operation	Display
456 ÷ 123 = 3.70731707317	456 $\boxed{\div}$ 123 $\boxed{=}$	3.70731707317

(1) If the decimal point selector is set at F, all effective digits within the capacity of the indicator are displayed.

1-4. Mixed Calculation

Setting •**2** ▉**0**
└ 5/4 ┐

Calculation example	Key operation	Display
384 + 256 x 3.14 ÷ 15 − 8 = 429.59	384 $\boxed{+}$ 256 $\boxed{\times}$ 3.14 $\boxed{\div}$ 15 $\boxed{-}$ 8 $\boxed{=}$	429.59
(268 + 283) x 1.28 ÷ 12 = 58.77	268 $\boxed{+}$ 283 $\boxed{=}$ $\boxed{\times}$ 1.28 $\boxed{\div}$ 12 $\boxed{=}$	58.77

(1) Calculations for simple mathematical expressions can be obtained by performing operations according to the expressions. However, in mathematical expressions where addition and subtraction are calculated with parentheses, as shown in the example, first obtain the result with the $\boxed{=}$ key, and then perform calculation.

1-5. Multiplication and Division by a Constant

Setting •4

Calculation example	Key operation	Display
12 x 45 = 540.0000	12 × 45 =	540.0000
12 x 55 = 660.0000	55 =	660.0000
12 x 65 = 780.0000	65 =	780.0000
52 ÷ 12 = 4.3333	52 ÷ 12 =	4.3333
74 ÷ 12 = 6.1667	74 =	6.1667
85 ÷ 12 = 7.0833	85 =	7.0833

(1) In multiplication, the first numeral entered (i.e. the multiplicand) becomes the constant. Subsequent calculation is automatic.

(2) In division, the second numeral entered (i.e. the divisor) becomes as the constant. Subsequent calculation is automatic.

1-6. Calculation using the Memory

Setting •0   CM

Calculation example	Key operation	Display
(1 + 2 + 3) x (4 + 5 + 6) = 90	1 + 2 + 3 = M+ 4 + 5 + 6 = × RM =	90.

(1) When the M+ key is depressed, the displayed data is added to the memory. To recall the contents of the memory, depress the RM key; to clear the contents, depress the CM key.

1-7. Calculation using the RV key

Setting •4

Calculation example	Key operation	Display
$\frac{1}{3+4}$ = 0.1429	3 + 4 = ÷ 1 RV =	0.1429

(1) RV key is used to interchange the numeral to be calculated and the calculating numeral.

2. Calculations of Functions

2-1. Function Keys

How to Use Function Keys

When using the function keys, there are two cases of input. One is of one variable and the other of two variables. The results of these inputs can be obtained according to the following operational procedures. The calculation accuracy at this time is always based on 10 digits.

Input variables	Kinds of functions	Key operation						
		1	2	3	4	5	6	7
1 variable	$\sqrt{}, \sqrt[3]{}, a^2, sin, cos, tan,$ $log, ln, e^x, a \overset{\circ\,'''}{\longrightarrow}, \overrightarrow{DEG}, \overrightarrow{RAD}$	variable	various function keys	(result)				
	arc (sin, cos, tan)	variable	**arc**	**sin**,**cos**,**tan**	(result)			
2 variables	a^x	variable (a)	**aˣ**	variable (x)	**aˣ**	(result)		
	$\overrightarrow{REC}$	variable (r)	**REC**	variable (θ)	**REC**	(result) (x)	**REC**	(result) (y)
	$\overrightarrow{POL}$	variable (x)	**POL**	variable (y)	**POL**	(result) (r)	**POL**	(result) (θ)
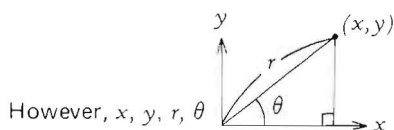
However, x, y, r, θ

(1) Regarding display method

As a rule, the results are displayed with an accuracy of 10 digits.

(Ex.)$\sqrt{3}$

(3 **√** ..... 1.732050807)

$Sin^{-1}\ 0.45$

(.45 **arc** **sin** ..... 26.74368395)

When the results consist only of fractions, 10 digits below the decimal point are displayed.

(Ex.) $sin\ 45°$

(45 **sin** ..... 0.7071067812)

$log_{10}\ 3$

(3 **log** ..... 0.4771212548)

The trailing zeros in the decimal part of the results are always suppressed.

(Ex.) $sin\ 30°$ (30 **sin** ..... 0.5)

25^2 (25 **a²** ..... 625.)

When the integer of the result using the **a²** , **eˣ** or **aˣ** key is 11 or 12 digits, the last 1 or 2 digits are replaced with zeros.

(Ex.) e^{25}

(25 **eˣ** .... 72'004'899'330.)

2^{37}

(2 **aˣ** 37 **aˣ** ... 137'438'953'900.)

(2) When function keys are used, floating calculations are always performed no matter what the decimal point selector dial designation.

(Ex.) Setting •**4** **□**

$cos\ 30°$

(30 **cos** ..... 0.8660254038)

$30°33'33'' \longrightarrow$ Decimal degree

(30.3333 **aᵒ'''** ... 30.55916667)

(3) When performing decimal point selector dial designation in the result, depress the **=** key again.

(Ex.) Setting •**4** **□**

$cos\ 30°$

(30 **cos** **=** ...... 0.8660)

10

$30°33'33'' \longrightarrow$ Decimal degree

$(30.3333 \boxed{a''} \boxed{=} \ldots \ldots 30.5592)$

(4) When there are two input variables, the input and the output procedures are both fixed. Therefore, perform the operational procedures according to the attached chart. In case the operations are stopped midway to change the calculation, first depress the $\boxed{\text{C}}$ key and then go onto the next calculation.

(Ex.) 20 $\boxed{a^x}$ (1.301029996) $\boxed{\text{C}}$
2 $\boxed{\text{REC}}$ 60 $\boxed{\text{REC}}$ (1) $\boxed{\text{C}}$

(5) Overflow will not function when the $\boxed{e^x}$ key is used. Therefore, depress the $\boxed{\text{C}}$ key.

(6) Mixed calculation in function calculations can be performed according to the mathematical expressions.

(Ex.) Setting $\cdot\boxed{4}$ $\boxed{\text{□}}$

$sin\ 30° + cos\ 60° = 1$

30 $\boxed{\text{sin}}$ $\boxed{+}$ 60 $\boxed{\text{cos}}$ $\boxed{=}$ (1.0000)

$\sqrt{20} + sin\ 30° = 4.9721$

20 $\boxed{\sqrt{}}$ $\boxed{+}$ 30 $\boxed{\text{sin}}$ $\boxed{=}$ (4.9721)

However, use the memory or change the calculation procedure in such calculations as the example shown below.

(Ex.) Setting $\cdot\boxed{4}$ $\boxed{\text{□}}$

$-2 + 3 \times sin\ 30° = 3.5$

2 $\boxed{\text{M+}}$ 3 $\boxed{\times}$ 30 $\boxed{\text{sin}}$ $\boxed{+}$ $\boxed{\text{RM}}$ $\boxed{=}$ (3.5000)

or 3 $\boxed{\times}$ 30 $\boxed{\text{sin}}$ $\boxed{+}$ 2 $\boxed{=}$ (3.5000)

$\sqrt{\sqrt[3]{log_e 1.3} + 2 \cdot \sqrt[3]{log_{10} 2.5}} = 1.4530$
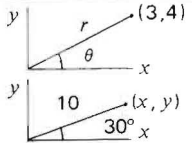
1.3 $\boxed{\text{ln}}$ $\boxed{\sqrt[3]{}}$ $\boxed{\text{M+}}$ 2 $\boxed{\times}$ 2.5 $\boxed{\text{log}}$
$\boxed{\sqrt[3]{}}$ $\boxed{=}$ $\boxed{\text{M+}}$ $\boxed{\text{RM}}$ $\boxed{\sqrt{}}$ $\boxed{=}$ (1.4530)

2-2 Input and Output Range of Function Keys

Kinds of functions	Input range	Output range	Conditions for overflow
sin	$10^{12} > x > -10^{12}$	$1 \geqq result \geqq -1$	
cos	$10^{12} > x > -10^{12}$	$1 \geqq result \geqq -1$	
tan	$10^{12} > x > -10^{12}$ (except $x=90+180 \cdot n$)	$10^{12} > result > -10^{12}$	$x = 90 + 180 \cdot n$ $(n = 0, 1, 2, \ldots)$
Sin^{-1}	$1 \geqq x \geqq -1$	$90° \geqq result \geqq -90°$	$|x| > 1$
Cos^{-1}	$1 \geqq x \geqq -1$	$180° \geqq result \geqq 0°$	$|x| > 1$
Tan^{-1}	$10^{12} > x > -10^{12}$	$90° \geqq result \geqq -90°$	
ln	$10^{12} > x > 10^{-12}$	$27.6 \geqq result \geqq -25.3$	$x \leqq 0$
log	$10^{12} > x > 10^{-12}$	$12 \geqq result \geqq -11$	$x \leqq 0$
e^x	$|x| \leqq 27.6$	$10^{12} > result \geqq 0$	$result \geqq 10^{12}$
a^x	$a > 0, x$ (depend on a)	$10^{12} > result > -10^{12}$	$result \geqq 10^{12}$
a^2	$10^6 > x > -10^6$	$10^{12} > result > 0$	$result \geqq 10^{12}$
$\sqrt{}$	$10^{12} > x \geqq 0$	$10^6 > result \geqq 0$	$x < 0$
$\sqrt[3]{}$	$10^{12} > x > 0$	$10^4 \geqq result > 0$	$x < 0$
$a^{°'''}$	$10^{10} > x > 10^{-10}$	$10^{10} > result > 10^{-10}$	$|x| \geqq 10^{11}$
$\overrightarrow{\text{DEG}}$	$10^{10} \geqq x \geqq -10^{10}$	$10^{12} > result > -10^{12}$	$|x| > 10^{12}$
$\overrightarrow{\text{RAD}}$	$10^{12} > x > -10^{12}$	$10^{10} > result > -10^{10}$	
$\overrightarrow{\text{REC}}$	$10^{12} > r > -10^{12}$ $10^{12} > \theta > -10^{12}$		
$\overrightarrow{\text{POL}}$	$x^2, y^2 < 10^{16}$ $x^2 + y^2 < 10^{16}$		

2-3 Calculations of Functions
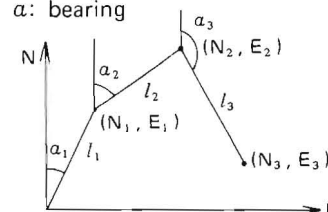
	Calculation example	Key operation		Display
Trigonometric Functions	$sin\ 30° = 0.5$	30 **sin**		0.5
	$cos\ 30° = 0.8660254038$	30 **cos**		0.8660254038
	$tan\ 60° = 1.732050808$	60 **tan**		1.732050808
	$sin\ 0.5433$ (radian)			
	$= 0.5169636257$	.5433 **DEG** **sin**		0.5169636257
	$cos\ 43°26'52'' = 0.7260014702$	43.2652 **$a°'''$** **cos**		0.7260014702
Inverse Trigonometric Functions	$Sin^{-1} 0.5 = 30°$	.5 **arc** **sin**		30.
	$Cos^{-1} 0.707 = 45.00865166°$	.707 **arc** **cos**		45.00865166
	$Tan^{-1} 2.5 = 68.19859051°$	2.5 **arc** **tan**		68.19859051
Conversion of Radians $\rightleftarrows$ Degree	$1\ radian = 57.29577951°$	1 **DEG**		57.29577951
	$38° = 0.6632251157\ radian$	38 **RAD**		0.6632251157
Conversion to Decimal Degree	$25°5'48'' = 25.09666667°$	25.0548 **$a°'''$**		25.09666667
Exponential Functions	$e^{1.4} = 4.055199967$	1.4 **e^x**		4.055199967
	$e^{-2.5} = 0.0820849986$	2.5 **SIGN CHG** **e^x**		0.0820849986
Power (Setting •**F** **0**)	$7^5 = 16,807$	7 **a^x** 5 **a^x**		16'807.
	$3.5^{\frac{3}{7}} = 1.710692767$	3 $\div$ 7 $=$ **M+**		
		3.5 **a^x** **RM** **a^x**		1.710692767
Logarithmic Functions	$log5 = 0.6989700044$	5 **log**		0.6989700044
	$ln2.34 = 0.8501509294$	2.34 **ln**		0.8501509294
Conversion of Polar $\rightleftarrows$ Rectangular Coordinates		3 **POL** 4 **POL** (r)	(r)	5.
		POL (θ)	(θ)	53.13010235
		10 **REC** 30 **REC** (x)	(x)	8.660254038
		REC (y)	(y)	5.
Square	$23^2 = 529$	23 **a^2**		529.
Square root	$\sqrt{85.36} = 9.239047569$	85.36 **$\sqrt{}$**		9.239047569.
Cube root	$\sqrt[3]{125} = 5$	125 **$\sqrt[3]{}$**		5.

(1) To convert degree/minute/second value into decimal degree, enter the degree value followed by the **·** key, then enter the minute and second values. If the minute and/or second value is less than 10, enter a zero in front of the numeral.

(2) The negative values are entered with the **SIGN CHG** key.

2-4 Various Mixed Calculations

Calculation example	Setting	Key operation	Display
$\sin 19° + \cos 39.4° - \tan 25°5'48''$ $= 0.6299$	•④ ▯	19 [sin] [+] 39.4 [cos] [−] 25.0548 [$a^{°'''}$] [tan] [=]	0.6299
$\sin 43° \times \sin 60° \div \cos 29° = 0.6753$	•④ ▯	43 [sin] [×] 60 [sin] [÷] 29 [cos] [=]	0.6753
$\sin 0.5433$ (radian) $\times \cos 0.2987$ (radian) $-3 \times \cos 0.4329$ (radian) $= -2.2292$	•④ ▯	.5433 [→DEG] [sin] [×] .2987 [→DEG] [cos] [=] [M+] 3 [SIGN CHG] [×] .4329 [→DEG] [cos] [=] [M+] [RM]	−2.2292
$e^{-2.5} \times \cos 43°26'52'' = 0.0596$	•④ ▯	2.5 [SIGN CHG] [e^x] [×] 43.2652 [$a^{°'''}$] [cos] [=]	0.0596
$\sqrt{2 \cdot \sqrt[3]{\log_{10} 5.3216} + \sqrt[3]{\log_e 1.4265}}$ $= 1.582965893$	•Ⓕ ▯	2 [×] 5.3216 [log] [$\sqrt[3]{\ }$] [+] 1.4265 [ln] [$\sqrt[3]{\ }$] [=] [$\sqrt{\ }$]	1.582965893
$\log_{10} 37^{\,(1/3 + 5 \times 0.2)}$ $= 2.090935632$	•Ⓕ ▯	1 [÷] 3 [+] 5 [×] .2 [=] [M+] 37 [a^x] [RM] [a^x] [log]	2.090935632

2-5 Applied Calculations

Calculation example	Setting	Key operation	Display
Volume of a sphere $V = \dfrac{4}{3}\pi r^3$ $r = 5$ $\left(\begin{array}{l}\pi \text{ can be obtained by depressing}\\ 180\ \overrightarrow{\text{RAD}}.\end{array}\right)$	•4 ▢	5 a^x 3 a^x × 180 $\overrightarrow{\text{RAD}}$ × 4 ÷ 3 =	523.5988
Water supply calculation $d = \sqrt{\dfrac{A \cdot \sin\theta}{2-\cos\theta}}$ $b = 2\tan\dfrac{\theta}{2}\sqrt{\dfrac{A \cdot \sin\theta}{2-\cos\theta}}$ d; depth of water (m) A; water passage cross section area (m^2) θ; angle of sidewall against horizontal line (degree) b; bottom width of waterway (m) A = 3.8 $\theta = 45°$	•4 ▢	2 − 45 cos = M+ 3.8 × 45 sin ÷ RM = √ = CM M+ 45 ÷ 2 = tan × 2 × RM =	(d) 1.4416 (b) 1.1943
Traverse calculation l: distance a: bearing N$_1$, E$_1$ (1, $\sqrt{3}$) N$_2$, E$_2$ (2, 1+$\sqrt{3}$) N$_3$, E$_3$ (3, 1)	•F ▢	3 √ POL 1 POL $\overrightarrow{\text{POL}}$ 2 − 1 = M+ 1 + 3 √ − 3 √ = POL RM $\overrightarrow{\text{POL}}$ $\overrightarrow{\text{POL}}$ CM 3 − 2 = M+ 1 − 1 − 3 √ = POL RM $\overrightarrow{\text{POL}}$ $\overrightarrow{\text{POL}}$	(l_1) 2. (a_1) 30.00000001 (l_2) 1.414213562 (a_2) 45. (l_3) 2. (a_3) 150.

Calculation example	Setting	Key operation	Display
Logarithmic mean $\overline{L} = \dfrac{A - B}{log_eA - log_eB}$ $A = 5, \ B = 3$	•④ 🔲	5 In − 3 In = M+ 5 − 3 = ÷ RM =	3.9154
Sum of two vectors $P = \sqrt{P_1^2 + P_2^2 + 2 \cdot P_1 \cdot P_2 \cdot cos\alpha}$ $\theta = Tan^{-1}\left(\dfrac{P_1 \cdot sin\,a}{P_1 \cdot cos\,a + P_2}\right)$ $P_1 = 30, P_2 = 15, a = 60°$	•F 🔲	30 a^2 M+ 15 a^2 M+ 2 × 30 × 15 × 60 cos = M+ RM √ 30 × 60 cos + 15 = CM M+ 30 × 60 sin ÷ RM = arc tan	(P) 39.68626966 (θ) 40.89339465
Hyperbolic sine $Sin\,h\,x = \dfrac{e^x - e^{-x}}{2}$ $x = 2$	•F 🔲	2 e^x − 2 SIGN CHG e^x = ÷ 2 =	3.6268604079

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