

It'll Even Give the Professional A More Confident Touch.



CASIO *fx-470*

76
FUNCTIONS

10 digit mantissa
+
2 digit exponent

NO MORE BATTERIES.

The fx-470 is meant for serious people. That's why it took some very serious thought to come up with a keyboard that would mix in all the values of professional figurework. The highly capable, highly useable fx-470 is the result.

The keys have a new positive-push profile for assured fingers. Coloring is bold. And its solar cells are sensitive, so forget about power worries.

On the business end of its keyboard you get a big 10-digit matissa plus 2-digit exponent surprising for such a compact. Its 76 functions include base conversions/calculations, logical operations and 9 physical constants in the higher realms of scientific thought.

Give the new fx-470 some serious consideration, we think it will be in touch with your sense of professionalism.



QUALITY · DEPENDABILITY · DURABILITY

CASIO®

CASIO fx-470

The battery that never quits, as long as there's light!

Works perfectly in normal roomlight, daylight, sunlight, lamplight, with any light over 50 Lux.

- Full formula capacity with true algebraic logic — 18 pairs of parentheses nestable in 6 levels for reading and processing as in the math expression.

Ex. $4.6 \times 3 \times [63 - 9^3 \times (1 - 58^8)] = ?$

Angular mode — DEG

4 6 3 3 6 3 9 9 2 2 5 5 8 1 5 8 8 8 8 8 82.82706213

- With the base conversions and logical operations function, your calculator becomes a useful new tool in the scientific field.

- Convenient 9 physical constants essential for scientific computations — Planck's constant, Avogadro constant, Boltzmann constant etc.

- Progressive standard deviations contribute to swift handling of statistics.

Before starting calculation, press the **key** and confirm that "0." is shown on the display.

CALCULATION EXAMPLES

Problem	Example	Operation	Read-out
Basic calculation	$(4.5 \times 10^3) \times (-2.3 \times 10^{-12}) - 1.035 \times 10^{-19}$ $1 + 2 - 3 + 4 + 5 + 6 - 6.6$ $10 \div [7 \times (3 + 6)] = -53$		-1.035 -19 6.6 -53.
Constant calculation	$2.3 \times \frac{12}{27.6}$ $1 \div 9 \times \frac{12}{27.6} = 108$ For the other three basic functions, the first entry is set as a constant in the same way. as in the above operation.		27.6 108.
Memory calculation	$53 + 6 = 59$ $23 - 8 = 15$ $56 \times 2 = 112$ $\rightarrow 99 \div 4 = 24.75$ 210.75		59. 15. 112. 24.75 210.75
Fraction calculation	$\frac{4}{5} \times (\frac{3}{4} + \frac{1}{2}) \times \frac{8}{9} - \frac{7}{9} \times \frac{3}{568} = \frac{1711}{568}$ (= 3.012323944)		3.7, 568. 1711, 568. 3.012323944
Binary/octal/ hexadecimal conversions	$22_{10} = 10110_2$ $= 26_8$ $= 16_{16}$		10110. 26. 16.
Binary/octal/ hexadecimal arithmetic operations	$10111_2 + 11010_2 = 110001_2$ $123_{10} \times ABC_{16} = 37AF_{16}$ $1F20_{16} - 100_{10} = 7881_{16}$		110001. 37AF. 7881.
Logical operations	$10_2 \text{ AND } 10_2 = 10_2$ $120_{10} \text{ OR } 110_2 = 120_{10}$ $8_{10} \text{ XOR } 3_{16} = 8_{16}$ $\text{NOT } 123_{10} = 777778543_{10}$		18. 120. 6. 777778543
Trigonometric/inverse trigonometric	$\sin 60^\circ = \text{rad} \approx 0.5$ $\tan^{-1} -35\text{grad} = -0.612800788$ $\sin^{-1} 0.8 = \cos^{-1} 0.9 = 27^\circ 17' 11.41''$		0.5 -0.612800788 27.28816959 27.271747.41
Hyperbolic/ inverse hyperbolic	$\tanh 2.5 = 0.986614298$ $\sinh^{-1} 2 \times \cosh^{-1} 1.5 = 1.389388923$		0.986614298 1.389388923
Logarithms	$\log 456 = \ln 456 = 0.434294481$		0.434294481
Square roots, Cube roots, Squares, Reciprocals & Factorials	$\sqrt{2} + \sqrt{3} \times \sqrt{5} = 5.287196908$ $\sqrt[3]{5} + \sqrt[3]{27} = 1.290024053$ $123 + 30! = 1023$ $\frac{1}{3} + \frac{1}{2} = 12$ $8!(= 1 \times 2 \times 3 \times \dots \times 7 \times 8) = 40320$		5.287196908 1.290024053 1023. 12. 40320.
FIX, SCI, NORM, RND	$1.23456789 \dots$ $1.23456789 \dots$ $1.23456789 \dots$ $1.23456789 \dots$ $1.23456789 \dots$		1.23 2.47 2.468 1.23 2.46 1.23 2.46 3.3-01 8.7-01 0.666666666 3.3-01 8.6-01 0.66
Rectangular to polar co-ordinates conversion	Find the length r and angle θ in radians when the point P is shown as $x = 4$ and $y = 3$ in the rectangular co-ordinates.		"RAD" 4.000000000 5. (r) 0.643501108 (θ in radians)
Permutations, Combinations	$7P4 = 840$ $10C4 = 210$		840. 210.
Standard deviation	Find sample standard deviation (σ_{n-1}) number of data (n) and arithmetical mean (\bar{x}) based on the data: 55, 54, 51, 56, 53, 53, 54, 52.		52. 1.40785953 53.375 8.
Percentage calculations	15% add on of 2500 2875 25% discount of 3500 2625		2875. 2625.
Random number	Random number generation		(Ex.) 0.485



It folds up and tucks away like a billfold.

SPECIFICATIONS

CAPACITY: Input range Output accuracy
Entry/basic calculations: 10-digit mantissa, or 10-digit mantissa plus 2-digit exponent up to 10^{99} .
Fraction calculations: Max. 3-digit mantissa for each integer, numerator or denominator and at the same time max. 8-digit mantissa for the sum of each part.

Binary number: Positive 0-11111111
Negative 1000000000-1111111111 (10 digits)
Octal numbers: Positive 0-3777777777
Negative 4000000000-7777777777 (10 digits)
Hexadecimal numbers: Positive 0-FFFFFFF
Negative 80000000-FFFFFFF (8 digits)

Scientific functions:
 $\sin x / \cos x / \tan x$ $|x| < 1440^\circ$ (≤ 8 Rnd $\times 10^{99}$) ± 1 in the 10th digit
 $\sin^{-1} x / \cos^{-1} x$ $|x| \leq 1$ ---
 $\tan^{-1} x$ $|x| \leq 10^{99}$ ---
 $\sinh x / \cosh x$ $|x| \leq 230.2565092$ ---
 $\tanh x$ $|x| \leq 10^{99}$ ---
 $\sinh^{-1} x$ $|x| \leq 5 \times 10^{99}$ ---
 $\cosh^{-1} x$ $1 \leq x \leq 10^{99}$ ---
 $\tanh^{-1} x$ $|x| < 1$ ---
 $\log_{10} / \ln x$ $10^{-100} \leq x \leq 10^{100}$ ---
 e^x $-10^{99} < x \leq 230.2565092$ ---
 10^x $-10^{99} < x < 100$ ---
 x^y $x > 0, -10^{99} < y, \log x < 100$ ---
 $x \div y$ $x > 0, y > 0$ ---
 $x \div y$ $x > 0, y > 0$ ---
 $x \div y$ $x < 0, -y = \text{integer or } \pm 1/2 \pi$ (Integer) ---
 x^y $x > 0, -10^{99} < y, \log x < 100$ ---
 x^y $x > 0, y > 0$ ---
 x^y $x < 0, -y = \text{odd number or } \pm 1/n$ (Integer) ---

\sqrt{x} $0 \leq x \leq 10^{99}$ ---
 $\sqrt[3]{x}$ $-10^{99} \leq x \leq 10^{99}$ ---
 $\sqrt[n]{x}$ $|x| \leq 10^{99}$ (x ≠ 0) ---
 $1/x$ $|x| \leq 10^{99}$ (x ≠ 0) ---
 x^2 $0 \leq x \leq 99$ (x: integer) ---
 nPr / nCr $0 \leq n, r < 10^{99}$ (n, r: positive integer) ---
 $\text{REC} = \text{POL}$ $\sqrt[n]{x} + y$ ---
 $\text{POL} = \text{REC}$ $|θ| < 1440^\circ$ (≤ 8 Rnd $\times 10^{99}$), $|r| < 10^{99}$ ---
 $r \rightarrow \pm n$ up to second 10 digits

DECIMAL POINT: Full floating with underflow.
NEGATIVE NUMBER: Indicated by the floating minus (-) sign for mantissa. The minus sign appears in the 3rd column for a negative exponent.
OVERFLOW OR ERROR: Indicated by an "E." or "C." sign, locking the calculator.
READ-OUT: Liquid crystal display, suppressing unnecessary 0's (zeros).
POWER SOURCE: Amorphous silicon solar battery.

OPERATING BRIGHTNESS: Over 50 Lux
AMBIENT TEMPERATURE RANGE: 0°C - 40°C (32°F - 104°F)

DIMENSIONS: 13mmH x 122mmW x 78.5mmD Folded (1/8"H x 4 7/8"W x 3 1/8"D)
6.5mmH x 122mmW x 157mmD Unfolded (1/4"H x 4 7/8"W x 6 1/8"D)

WEIGHT: 84g (3.3oz)

* Design and specifications may be subject to change without notice.