

# PENGGUNAAN KALKULATOR

## 1. Hierarki Perhitungan & menghitung dalam satu sekvensial

Example	Operation	Display
$23 + 4.5 - 53 = -25.5$	$23 \boxed{+} 4.5 \boxed{-} 53 \boxed{EXE}$	-25.5
$56 \times (-12) \div (-2.5) = 268.8$	$56 \boxed{\times} \boxed{-} 12 \boxed{\div} \boxed{-} 2.5 \boxed{EXE}$	268.8
$12369 \times 7532 \times 74103 =$ $6.903680613 \times 10^{12}$ (6903680613000)	$12369 \boxed{\times} 7532 \boxed{\times} 74103 \boxed{EXE}$	6.903680613 <sup>12</sup> Exponential display
$(4.5 \times 10^{75}) \times (-2.3 \times 10^{-79}) =$ $-1.035 \times 10^{-3}$ (-0.001035)	$4.5 \boxed{EXP} 75 \boxed{\times} \boxed{-} 2.3 \boxed{EXP} \boxed{-} 79 \boxed{EXE}$	1.035 <sup>-3</sup>
$(1 \times 10^6) \div 7 = 14285.71429$	$1 \boxed{EXP} 6 \boxed{\div} 7 \boxed{EXE}$	14285.71429
$(1 \times 10^5) \div 7 - 14285 = 0.7142857$	$1 \boxed{EXP} 5 \boxed{\div} 7 \boxed{-} 14285 \boxed{EXE}$	0.7142857
$3 + 5 \times 6 = 33$	$3 \boxed{+} 5 \boxed{\times} 6 \boxed{EXE}$	33.
$7 \times 8 - 4 \times 5 = 36$	$7 \boxed{\times} 8 \boxed{-} 4 \boxed{\times} 5 \boxed{EXE}$	36.
$1 + 2 - 3 \times 4 \div 5 + 6 = 6.6$	$1 \boxed{+} 2 \boxed{-} 3 \boxed{\times} 4 \boxed{\div} 5 \boxed{+} 6 \boxed{EXE}$	6.6

Example	Operation	Display
$100 - (2+3) \times 4 = 80$	$100 \boxed{-} \boxed{(} 2 \boxed{+} 3 \boxed{)} \boxed{\times} 4 \boxed{EXE}$	80.
$2 + 3 \times (4+5) = 29$	$2 \boxed{+} 3 \boxed{\times} \boxed{(} 4 \boxed{+} 5 \boxed{)} \boxed{EXE}$	29.
*You may omit closed parentheses which come immediately before the $\boxed{\times}$ key (no matter how many are required).		
$(7-2) \times (8+5) = 65$	$\boxed{7} \boxed{-} 2 \boxed{\times} \boxed{8} \boxed{+} 5 \boxed{EXE}$	65.
*You may also omit $\boxed{\times}$ for the multiplication operation immediately before an open parentheses.		
$10 - [2+7 \times (3+6)] = -55$	$10 \boxed{-} \boxed{[} 2 \boxed{+} 7 \boxed{\times} \boxed{3} \boxed{+} 6 \boxed{]} \boxed{EXE}$	-55.
*For the sake of clarity, all closed parentheses and $\boxed{\times}$ key operations are shown in this manual, whether they are required or not.		
$\frac{2 \times 3 + 4}{5} = (2 \times 3 + 4) \div 5 = 2$	$\boxed{2} \boxed{\times} 3 \boxed{+} 4 \boxed{\div} 5 \boxed{EXE}$	2.
$\frac{5 \times 6 + 6 \times 8}{15 \times 4 + 12 \times 3} = 0.8125$	$\boxed{5} \boxed{\times} 6 \boxed{+} 6 \boxed{\times} 8 \boxed{\div} \boxed{15} \boxed{\times} 4 \boxed{+} 12 \boxed{\times} 3 \boxed{EXE}$	0.8125
$(1.2 \times 10^{19}) - ((2.5 \times 10^{20})$ $\times \frac{3}{100}) = 4.5 \times 10^{18}$	$1.2 \boxed{EXP} 19 \boxed{-} \boxed{(} 2.5 \boxed{EXP} \boxed{\times} \boxed{3} \boxed{\div} 100 \boxed{)} \boxed{EXE}$	4.5 <sup>18</sup>
$\frac{6}{4 \times 5} = 0.3$	$6 \boxed{\div} \boxed{4} \boxed{\times} 5 \boxed{EXE}$	0.3
*The above is the same as $6 \boxed{\div} 4 \boxed{\times} 5 \boxed{EXE}$ .		

### Example 1

$3 \times 4 = 12$ , continuing with  $\sqrt{3.14}$

$3 \boxed{\times} 4 \boxed{EXE}$

(followed by)  $\sqrt{3.14}$

$\boxed{EXE}$

1	2
1	2
3	8 2 1 6 5 6 0 5 1

### Example 2

Compare:  $1 / 3 \times 3$

$1 / 3$ , followed by  $\times 3$

$1 \boxed{\div} 3 \boxed{\times} 3 \boxed{EXE}$

$1 \boxed{\div} 3 \boxed{EXE}$

(followed by)  $\times 3 \boxed{EXE}$

1
0.333333333
0.999999999

## 2. Menggunakan Ans

1 2 3 + 4 5 6 EXE  
7 8 9 - SHIFT Ans  
EXE

5 7 9.
7 8 9 - Ans
2 1 0.

2 × Ans      2 SHIFT Ans  
Ans × (5 + 3)      SHIFT Ans ( 5 + 3 ) )

## 3. Jumlah angka desimal

## 4. Angular Measurement: DEGREE, RADIAN, GRADIEN

Example	Operation	Display
4.25 radians to degrees	MODE 4 EXE → "D" 4.25 SHIFT MODE 5 EXE	243.5070629
1.23 grads to radians	MODE 5 EXE → "R" 1.23 SHIFT MODE 6 EXE	0.019320794
7.89 degrees to grads	MODE 6 EXE → "G" 7.89 SHIFT MODE 4 EXE	8.766666667
Result in degrees $47.3^\circ + 82.5\text{rad} = 4774.20181$	MODE 1 EXE → "D" 47.3 SHIFT MODE 5 EXE 12.4 + 8.3 SHIFT MODE 5 → 1.8 SHIFT MODE 6 EXE	4774.20181
$12.4^\circ + 8.3\text{rad} = 1.8\text{gra} = 486.33497$	12.4 + 8.3 SHIFT MODE 5 → 1.8 SHIFT MODE 6 EXE	486.33497

Example	Operation	Display
Result in radians $24^\circ 6' 31'' + 85.34\text{rad} = 85.76077464$	MODE 1 EXE → "R" 24 6 31 SHIFT MODE 5 → 85.34 SHIFT MODE 4 →	85.76077464
Result in grads $36.9^\circ + 41.2\text{rad} = 2663.873462$	MODE 6 EXE → "G" 36.9 SHIFT MODE 4 + 41.2 SHIFT MODE 5 → 5 EXE	2663.873462

## 5. Fungsi Trigonometri

Example	Operation	Display
$\sin 63^\circ 52' 41'' = 0.897859012$	MODE 4 EXE → "D" SIN 63 52 41 →	0.897859012
$\cos \left( \frac{\pi}{3} \text{ rad} \right) = 0.5$	MODE 5 EXE → "R" COS ( SHIFT π / 3 ) EXE	0.5
$\tan (-35\text{gra}) = -0.612800788$	MODE 6 EXE → "G" TAN (-35 EXE)	-0.612800788
$2 \times \sin 45^\circ \times \cos 65^\circ = 0.597672477$	MODE 4 EXE → "D" 2 × SIN 45 × COS 65 → Can be omitted.	0.597672477
$\sin^{-1} 0.5 = 30^\circ$ (Find the value of x when $\sin x = 0.5$ )	SIN⁻¹ 0.5 EXE Can be entered as .5.	30.
$\cos^{-1} \frac{\sqrt{2}}{2} = 0.785398163 \text{ rad}$ $= \frac{\pi}{4} \text{ rad}$	MODE 5 EXE → "R" SHIFT COS⁻¹ ( 2 √ 2 ) → SHIFT π / 4 EXE	0.785398163 0.249999999
$\tan^{-1} 0.741 = 36.53844577^\circ$ $= 36^\circ 32' 18.4'$	MODE 4 EXE → "D" SHIFT TAN⁻¹ 0.741 → SHIFT °'.	36.53844577 36° 32' 18.4'

## 6. Fungsi Hiperbolik

Example	Operation	Display
$\sinh 3.6 = 18.28545536$	[ <b>HY SHIFT SINH</b> ] 3.6 [EXE]	18. 28545536
$\cosh 1.23 = 1.856761057$	[ <b>HY SHIFT COSH</b> ] 1.23 [EXE]	1. 856761057
$\tanh 2.5 = 0.986614298$	[ <b>HY SHIFT TANH</b> ] 2.5 [EXE]	0. 986614298
$\cosh^{-1} 1.5 - \sinh^{-1} 1.5 =$ $= e^{-1.5}$ (Proof of $\cosh x \pm \sinh x = e^{\pm x}$ )	[ <b>HY SHIFT COSH</b> ] 1.5 [ <b>HY SHIFT SINH</b> ] 1.5 [EXE] (Continuing) [ <b>LN SHIFT ANS</b> ] [EXE]	0. 22313016 -1. 5
$\sinh^{-1} 30 = 4.094622224$	[ <b>HY SHIFT SINH</b> ] 30 [EXE]	4. 094622224
$\cosh^{-1} \left(\frac{20}{15}\right) = 0.795365461$	[ <b>HY SHIFT COSH</b> ] [ <b>L</b> 20 [ <b>D</b> 15] [EXE]	0. 795365461
Value of $x$ when $\tanh 4x = 0.88$ $x = \frac{\tanh^{-1} 0.88}{4} = 0.343941914$	[ <b>HY SHIFT TANH</b> ] 0.88 [ <b>4</b> ] [EXE]	0. 343941914
$\sinh^{-1} 2 \times \cosh^{-1} 1.5 =$ 1.389388923	[ <b>HY SHIFT SINH</b> ] [ <b>L</b> 2 [ <b>MUL</b> ] [ <b>HY SHIFT COSH</b> ] 1.5 [EXE]	1. 389388923
$\sinh^{-1} \left(\frac{2}{3}\right) + \tanh^{-1} \left(\frac{4}{5}\right) =$ 1.723757406	[ <b>HY SHIFT SINH</b> ] [ <b>L</b> 2 [ <b>PLUS</b> ] [ <b>HY SHIFT TANH</b> ] [ <b>L</b> 4 [ <b>PLUS</b> ] 5 [EXE]	1. 723757406

## 7. Fungsi Logaritma dan Eksponensial

Example	Operation	Display
$\log 1.23 (\log 1.23) =$ 8.9905111 $\times 10^{-2}$	[ <b>LOG</b> ] 1.23 [EXE]	0. 089905111
$\ln 90 (\ln 90) = 4.49980967$	[ <b>LN</b> ] 90 [EXE]	4. 49980967
$\log 456 \div \ln 456 = 0.434294481$	[ <b>LOG</b> ] 456 [ <b>DIVIDE</b> ] [ <b>LN</b> ] 456 [EXE]	0. 434294481
$10^{1.23} = 16.98243652$ (Anti-logarithm of common logarithm 1.23)	[ <b>SIFT EXP</b> ] 1.23 [EXE]	16. 98243652
$e^{4.5} = 90.0171313$ (Anti-logarithm of natural logarithm 4.5)	[ <b>SIFT EXP</b> ] 4.5 [EXE]	90. 0171313
$10^4 \cdot e^{-4} + 1.2 \cdot 10^{23} = 422.5878667$	[ <b>SIFT EXP</b> ] 4 [ <b>MUL</b> ] [ <b>SIFT EXP</b> ] -4 [ <b>PLUS</b> ] [ <b>10 SHIFT EXP</b> ] 23 [EXE]	422. 5878667
$3^6 = 729$	[ <b>3</b> ] [ <b>POWER</b> ] 6 [EXE]	. 729.
$2^{11} = 2048$	[ <b>2</b> ] [ <b>POWER</b> ] 11 [EXE]	2048.
$5.6^{23} = 52.58143837$	[ <b>5.6</b> ] [ <b>POWER</b> ] 23 [EXE]	52. 58143837
$\sqrt[3]{123} (= 123^{\frac{1}{3}}) = 1.988647795$	[ <b>7 SQRT</b> ] 123 [EXE]	1. 988647795
$(78 - 23)^{-12} = 1.305111829 \times 10^{-21}$	[ <b>78</b> ] [ <b>MINUS</b> ] [ <b>23</b> ] [ <b>SIFT EXP</b> ] [ <b>-</b> 12 [EXE]	1. 305111829 $\times 10^{-21}$
$2 + 3 \times \sqrt[3]{64} - 4 = 10$	[ <b>2</b> ] [ <b>PLUS</b> ] [ <b>3</b> ] [ <b>POWER</b> ] 64 [ <b>MINUS</b> ] 4 [EXE]	10.
$2 \times 3.4^{(5+6.7)} = 3306232.001$	[ <b>2</b> ] [ <b>MUL</b> ] [ <b>3.4</b> ] [ <b>POWER</b> ] [ <b>L</b> 5 [ <b>PLUS</b> ] 6.7 [EXE]	3306232. 001

## 8. Fungsi Scientific yang lain

Example	Operation	Display
$\sqrt{2} + \sqrt{5} = 3.65028154$	$\boxed{\sqrt{2}} + \boxed{\sqrt{5}} \boxed{EX}$	3.65028154
$2^2 + 3^2 + 4^2 + 5^2 = 54$	$2 \boxed{x^2} + 3 \boxed{x^2} + 4 \boxed{x^2} + 5 \boxed{x^2} \boxed{EX}$	54.
$\frac{1}{\frac{1}{2} - \frac{1}{4}} = 12$	$\boxed{\square} 3 \boxed{x^{-2}} - \boxed{\square} 2 \boxed{x^{-2}} \boxed{EX}$	12.
$8! (= 1 \times 2 \times 3 \times \dots \times 8) = 40320$	$8 \boxed{x!} \boxed{EX}$ *With the fx-5000F, press $\boxed{SHIFT} \boxed{EX}$	40320.
$\sqrt[3]{36 \times 42 \times 49} = 42$ Random number generation (pseudo-random number from 0.000 to 0.999)	$\boxed{SHIFT} \boxed{3} \boxed{\square} 36 \boxed{\times} 42 \boxed{\times} 49 \boxed{\square} \boxed{EX}$ $\boxed{SHIFT} \boxed{RND} \boxed{EX}$	(Ex.) 0.792
$\sqrt{13^2 - 5^2} + \sqrt{3^2 + 4^2} = 17$	$\boxed{\sqrt{}} \boxed{\square} 13 \boxed{x^2} - \boxed{\square} 5 \boxed{x^2} \boxed{+} \boxed{\sqrt{}} \boxed{\square} 3 \boxed{x^2} + 4 \boxed{x^2} \boxed{EX}$	17.
$\sqrt{1 - \sin^2 40^\circ} = 0.766044443$ $= \cos 40^\circ$ (Proof of $\cos \theta = \sqrt{1 - \sin^2 \theta}$ )	$\boxed{MATH} \boxed{4} \boxed{EX} \rightarrow "D"$ $\boxed{\sqrt{}} \boxed{\square} 1 \boxed{x} \boxed{\square} (\boxed{\sin} 40 \boxed{)} \boxed{x} \boxed{EX}$ (Continuing) $\boxed{SHIFT} \boxed{MATH} \boxed{4} \boxed{EX}$	0.766044443
$\frac{1}{2!} + \frac{1}{4!} + \frac{1}{6!} + \frac{1}{8!} = 0.543080357$	$2 \boxed{x!} \boxed{x} + 4 \boxed{x!} \boxed{x} + 6 \boxed{x!} \boxed{x} + 8 \boxed{x!} \boxed{x} \boxed{EX}$ *With the fx-5000F, press $\boxed{SHIFT} \boxed{EX}$	0.543080357
Absolute value of common logarithm of $\frac{3}{4}$	$\boxed{SHIFT} \boxed{LOG} \boxed{\square} 3 \boxed{\square} 4 \boxed{EX}$	0.124938736
$ \log \frac{3}{4}  = 0.124938736$		

## 9. Sistem Basis

Example	Operation	Display
Decimal equivalent of $2A_{16}$ and $274_8$	$\boxed{DEC} \boxed{EX} \rightarrow "d"$ $\boxed{SHIFT} \boxed{H} 2A \boxed{EX}$ $\boxed{SHIFT} \boxed{O} 274 \boxed{EX}$	42. d
Hexadecimal equivalent of $123_{10}$ and $1010_2$	$\boxed{HEX} \boxed{EX} \rightarrow "h"$ $\boxed{SHIFT} \boxed{D} 123 \boxed{EX}$ $\boxed{SHIFT} \boxed{B} 1010 \boxed{EX}$	7b. h
Octal equivalent of $15_{16}$ and $1100_2$	$\boxed{OCT} \boxed{EX} \rightarrow "o"$ $\boxed{SHIFT} \boxed{H} 15 \boxed{EX}$ $\boxed{SHIFT} \boxed{B} 1100 \boxed{EX}$	25. o
Binary equivalent of $36_{10}$ and $2C3B7_{16}$	$\boxed{BIN} \boxed{EX} \rightarrow "b"$ $\boxed{SHIFT} \boxed{D} 36 \boxed{EX}$ $\boxed{SHIFT} \boxed{H} 2C3B7 \boxed{EX}$	100100. b