

MILAN®

sin 45
0.707106781

MODE DEL ← → OFF ON/C

d/c 10^x e^x ← MCl Sci

a^{b/c} log ln ENG √ X²

3√ X³ X^y nPr nCr Pol(X⁻¹

A ← B C sin⁻¹ D cos⁻¹ E tan⁻¹ F

(-), ∅, ∅, hyp sin cos tan

STO RCL () , M+

[A] [B] [C] DT [CL]

7 8 9 SHIFT ALPHA

[y] [yO_n] [yO_n-1]

4 5 6 × ÷

[x̄] [xO_n] [xO_n-1] [x̂] [ŷ]

1 2 3 + -

Rnd Ran # π DRG ▶ %

0 • EXP ANS =

SCIENTIFIC CALCULATOR

HANDLING PRECAUTIONS

- Be sure to press the **RESET** button on the back of the calculator before using it for the first time.
- Even if the calculator is operating normally, replace the battery at least once every three years. Dead battery can leak, causing damage to and malfunction of the calculator. Never leave the dead battery in the calculator.
- The battery that comes with this unit discharges slightly during shipment and storage. Because of this, it may require replacement sooner than the normal expected battery life.
- Low battery power can cause memory contents to become corrupted or lost completely. Always keep written records of all important data.
- Avoid use and storage in areas subjected to temperature extremes. Very low temperatures can cause slow display response, total failure of the display, and shortening of battery life. Also avoid leaving the calculator in direct sunlight, near a window, near a heater or anywhere else it might become exposed to very high temperatures. Heat can cause discoloration or deformation of the calculator's case, and damage to internal circuitry.
- Avoid use and storage in areas subjected to large amounts of humidity and dust. Take care never to leave the calculator where it might be splashed by water or exposed to large amounts of humidity or dust. Such elements can damage internal circuitry.

- Never drop the calculator or subject it to strong impact.
- Never twist or bend the calculator. Avoid carrying the calculator in the pocket of your trousers or other tight-fighting clothing where it might be subjected to twisting or bending.
- Never try to take the calculator apart.
- Never press the keys of the calculator with a ballpoint pen or other pointed object.
- Use a soft, dry cloth to clean the exterior of the unit. If the calculator becomes very dirty, wipe it off with a cloth moistened in a weak solution of water and a milk neutral household detergent. Remove all excess moisture before wiping the calculator. Never use thinner, benzine or other volatile agents to clean the calculator. Doing so can remove printed markings and damage the case.

TWO-LINE DISPLAY



You can simultaneously check the calculation formula and its answer.

The first line displays the calculation formula.
The second line displays the answer.

Before starting calculations

- Modes

APPLICATION	Mode Name	Mode Indicator
Calculation Modes		
Normal calculations	COMP	–
Standard deviation calculation	SD	SD
Regression calculations	REG	REG
Angle Unit Modes		
Degrees	DEG	D
Radians	RAD	R
Grads	GRA	G
Display Modes		
Exponential notation (Cancelling FIX and SCI specification)	NORM	–
Number of decimals place specification	FIX	Fix
Number of significant digit specification	SCI	Sci

Note

- Mode indicators appear in the lower part of the display.
- The COMP, SD, and REG modes can be used in combination with the angle unit modes.
- Be sure to check the current calculation mode (SD, REG, COMP) (DEG, RAD, GRA) before beginning a calculation.

• Input Capacity

- The memory used for calculation input can hold 99 “step”. Whenever you input the 99th step of any calculation, the cursor changes from “_” to “■” to let you know memory is running low and you cannot input steps any more. If you still need to input more, you should divide your calculation into two or more parts.

- Making corrections during input

- Use \leftarrow and \rightarrow to move the cursor to the location you want.

- Press $\boxed{\text{DEL}}$ to delete the number or function at the current cursor position.

- Press $\boxed{\text{SHIFT}} \boxed{\text{INS}}$ to an insert cursor \square . Inputting something while the insert cursor is on the display inserts the input at the insert cursor position.

- Press, \leftarrow , \rightarrow , $\boxed{\text{SHIFT}} \boxed{\text{INS}}$ or $\boxed{=}$ returns to the normal cursor from the insert cursor.

• Replay function

- Pressing \leftarrow or \rightarrow recalls the last calculation you performed. You can then make any changes you want in the calculation and re-execute it.

- Pressing $\boxed{\text{ON/C}}$ does not clear Replay memory, so you can recall the last calculation even after you press $\boxed{\text{ON/C}}$.

- Replay memory is cleared whenever you start a new calculation, change to another mode, or turn off power.

- **Error Locator**

- Pressing \leftarrow or \rightarrow after an error occurs displays the calculation with the cursor positioned at the location where the error occurred.

- **Exponential Display Formats**

- This calculator can display up to 10 digits. Larger values are automatically displayed using exponential notation. Press MODE MODE MODE 3 to have exponential display and cancel FIX and SCI specification. With NORM, exponential notation is automatically used for integer values with more than 10 digits and decimal values with more than nine decimal places.

- **Answer Memory**

- Whenever you press = after inputting values or an expression, the calculated result is automatically stored in Answer Memory you can recall Answer Memory contents by pressing ANS .

- Answer Memory can store up to 10 digits for the mantissa and two digits for the exponent. Answer Memory contents are not changed if the operation performed by any of the above key operations results in an error.

- **Basic Calculations**

- Use the COMP mode for basic calculations.
- Example 1: $3 \times (5 \times 10^{-11})$

$$3 \times (5 \text{Exp} (-) 11) =$$

$1,5^{-10}$

- Example 2: $2:5 \times (9+7)$

$$5 \times (9 + 7) =$$

80.

- You can skip all) operations before =.

MEMORY CALCULATIONS

• Independent Memory

- Values can be input directly into memory, added to memory, or subtracted from memory. Independent memory is convenient for calculating cumulative totals.
- Independent memory uses the same memory area as variable M.
- To clear independent memory (M), $0 \text{ STO } M$.
- Example:

$$23+9=32$$

$$+ 9 \text{ STO } M \quad \boxed{32.}$$

$$53-6=47$$

$$53 - 6 \text{ M+} \quad \boxed{47.}$$

$$-45 \times 2 = 90$$

$$45 \times 2 \text{ SHIFT M-} \quad \boxed{90.}$$

$$\text{(total) } -11$$

$$\text{RCL } M \quad \boxed{-11.}$$

• Variables

• There are nine variables (A through, F, M, X and Y), which can be used to store data, constants, results, and other values.

• Use the following operation to delete data assigned to all nine variables: **SHIFT** **MCl** **=**

• Use the following operation to delete data assigned to a particular variable: **0** **STO** **A**.

• This operation deletes the data assigned to variable A.

• Example: $193.2 \div 23 = 8.4$

$193.2 \div 28 = 6.9$

193.2 **STO** **A** \div 23 **=**

8.4

ALPHA **A** \div 23 **=**

6.9

Fraction Calculations

• Fraction calculations

• Use the COMP mode for fraction calculations.

• Values are automatically displayed in decimal format whenever the total number of digits of a fractional value (integer + numerator + denominator + separator marks) exceeds 10.

Example: $\frac{2}{3} + 1\frac{4}{5}$

2 **ab/c** 3 **+** 1 **ab/c** 4 **ab/c** 5 **=**

2.715

Example: $\frac{1}{2} + 1,6$

1 **ab/c** 2 **+** 1,6 **=**

2,1

- Fraction/decimal calculation results are always decimal.

- **Decimal – to – fraction conversion**

Example:

$$2.75 \rightarrow 2 \frac{3}{4}$$

2.75 =

2.75

$\frac{a}{b} \frac{c}{d}$

2 3 4

SHIFT $\frac{d}{c}$

11 4

- **Fraction – to – decimal conversion**

Example:

$$\frac{1}{2} \leftrightarrow 0.5 \text{ (Fraction} \leftrightarrow \text{Decimal)}$$

1 $\frac{a}{b} \frac{c}{d}$ 2 =

1 2

$\frac{a}{b} \frac{c}{d}$

0.5

$\frac{a}{b} \frac{c}{d}$

1 2

Percentage Calculations

- Use the COMP mode for percentage calculation.
- Example 1: To calculate 12% of 1500

$$1500 \times 12 \text{ SHIFT } \% = 180.$$

- Example 2: To calculate what percentage of 880 is 660

$$660 \div 880 \text{ SHIFT } \% = 75.$$

Scientific Function Calculations

- Use the COMP mode for scientific function calculations.
- $\pi = 3,14159265359$

• Trigonometric / Inverse trigonometric Functions

- Example 1: $\sin 63^{\circ}52'41''$

MODE **MODE** **1** → "D"
sin 63 **o ' "** 52 **o ' "** 41 **o ' "** **=** 0,897859012
D

- Example 2: $\cos\left(\frac{\pi}{3}\text{ rad}\right)$

MODE **MODE** **2** → "R"
cos (**SHIFT** **π** **+** 3) **=** 0,5
R

- Example 3: $\cos^{-1}\frac{\sqrt{2}}{2} = \frac{\pi}{4}\text{ rad}$

MODE **MODE** **2** → "R"
SHIFT **cos⁻¹** (**(** **√** 2 **+** 2) **)** **=** 0,785398163
R
Ans **+** **SHIFT** **π** **=** 0,25

- Example 4: $\tan^{-1} 0.741$

MODE **MODE** **1** → "D"
SHIFT **tan⁻¹** 0.741 **=** 36.53844577
D

• Hyperbolic / Inverse Hyperbolic Functions

- Example 1: $\sinh 3.6$ **hyp** **sin** 3.6 **=** 18.28545536

- Example 2: $\sinh^{-1} 30$

hyp **SHIFT** **sin⁻¹** 30 **=** 18.28545536

• Angle Unit Conversion

- Press **SHIFT** **DRG** to display the following menu.

D	R	G
1	2	3

• Pressing **1** **2** or **3** converts the displayed value to the corresponding angle unit.

• Example: To convert 4,25 radians to degrees

$$\text{MODE} \text{ MODE} \text{ 1} \rightarrow \text{"D"} \\ 4.25 \text{ SHIFT} \text{ DRG} \text{ 2} \text{ (R)} = \begin{array}{|l} 4.25\text{r} \\ 243.5070629 \end{array}$$

• Common and Natural Logarithms / Antilogarithms

• Example 1: $\log 1.23$ **1.23** **log** **1.23** = **0.089905111**

• Example 2: $\ln 90$ (=log_e 90) **ln** **90** = **4.49980967**

• Example 3: e^{10} **SHIFT** **e^x** **10** = **22026.46579**

• Example 4: $10^{1.5}$ **SHIFT** **10^x** **1.5** = **31.6227766**

• Example 5: 2^4 **2** **x^y** **4** = **16.**

• Square Roots, Cube Roots, Roots, Square, Cubes, Reciprocals, Factorials, Random Numbers and π

• Example 1: $\sqrt{2+\sqrt{3}\times\sqrt{5}}$

$$\sqrt{\text{ 2 } + \sqrt{\text{ 3 } \times \sqrt{\text{ 5 }}}} = 5.287196909$$

• Example 2: $\sqrt[3]{5+\sqrt[3]{-27}}$

$$\sqrt[3]{\text{ 5 } + \sqrt[3]{\text{ (-) 27}}} = -1.290024053$$

• Example 3: $\sqrt[7]{123}$ (= $123^{\frac{1}{7}}$)

$$\text{ 7 } \text{SHIFT} \text{ x}\sqrt{\text{ 123 }} = 1.988647795$$

• Example 4: $123+30^2$

$$\text{ 123 } + \text{ 30 } \text{x}^2 = 1023.$$

• Example 5: 12^3

$$\text{ 12 } \text{x}^3 = 1728.$$

- Example 6: $\frac{1}{\frac{1}{3} - \frac{1}{4}}$

$$\left(\left(3 \left[x^{-1} \right] - 4 \left[x^{-1} \right] \right) \left[x^{-1} \right] \right) = 12.$$

- Example 7: 8!

$$8 \text{ [SHIFT] [x!]} = 40320.$$

- Example 8: To generate a random number between 0,000 and 0,999

$$\text{[SHIFT] [Ran\#]} = 0.664$$

Example (results differ each time)

- Example 9: 3π

$$3 \text{ [SHIFT] [\pi]} = 9.424777961$$

- **FIX, SCI, RND**

- Example 1: $200 \div 7 \times 14 = 400$

$$200 \text{ [\div]} 7 \text{ [x]} 14 = 400.$$

(Specifies three decimal places)

$$\text{[MODE] [MODE] [MODE] [1] [3]} \quad 400.000$$

Fix

(Calculation continues using 10 display digits)

$$200 \text{ [\div]} 7 = 28.571$$

$$\text{[x]} 14 = 400.000$$

Performing the same calculation using the specified number of decimal places

$$200 \text{ [\div]} 7 = 28.571$$

(Internal rounding)

$$\text{[SHIFT] [Rnd]} \quad 28.571$$

$$\text{[x]} 14 = 399.994$$

- To clear FIX specification, press

$$\text{[MODE] [MODE] [MODE] [3]}.$$

- Example 2: $1 \div 3$ displaying result with two significant digits (SCI 2)

MODE MODE MODE 2 2

$1 \div 3 =$ 3.3⁻⁰¹
Sci

- To clear SCI specification, press MODE MODE MODE 3.

• ENG Calculations

- Example 1: To convert 56,088 meters to kilometres

$56,088 =$ ENG 56.088⁰³

- Example 2: To convert 0,08125 grams to milligrams

$0,08125 =$ ENG 81.25⁻⁰³

• Coordinate Conversion (Pol (x,y), Rec (r,0))

- Calculation results are automatically assigned to variables E and F.

- Example: To convert polar coordinates ($r=2$, $\theta=60^\circ$) to rectangular coordinates (x, y)

(DEG mode)

x SHIFT Rec(2 , 60) = 1.

y RCL F = 1.732050808

- RCL E, RCL F swaps displayed value with value in memory.

- Example 2: To convert rectangular coordinates ($1, \sqrt{3}$) to polar coordinates (r, θ) (RAD mode)

r Pol(1 , $\sqrt{}$ 3) = 2.

θ RCL F = 1.047197551

- RCL E, RCL F swaps displayed value with value in memory.

• Permutation

- Example: To determine how many different 4-digit values can be produced using the numbers 1 through 7.
- Numbers cannot be duplicated within the same 4-digit value (1234 is allowed, but 1123 is not).

$$7 \text{ [SHIFT] [nPr] } 4 \text{ [=]} \boxed{1.732050808}$$

• Combination

- Example: To determine how many different 4-member groups can be organized in a group of 10 individuals.

$$10 \text{ [mCr] } 4 \text{ [=]} \boxed{210.}$$

STATISTICAL CALCULATIONS

• Standard Deviation (SD mode)

- Press **[MODE] [2]** to enter the SD mode for statistical calculations using standard deviation.
- Data input always starts with **[SHIFT] [Sci] [=]** to clear statistical memory.
- Input data is used to calculate values for n , $\sum x$ and $\sum x^2$, \bar{x} , σn and σn^{-1} which you can recall using the following key operations.

RCL	A	$\sum x^2$
RCL	B	$\sum x$
RCL	C	n
SHIFT	\bar{x}	\bar{x}
SHIFT	σn	σn
SHIFT	σn^{-1}	σn^{-1}

• Example: To calculate n , $\sum x$ and $\sum x^2$, \bar{x} , σn and σn^{-1} for the following data: 55,54,51,55,53,53,54,52

Enter SD Mode

MODE **2**

SHIFT **Sci** **=** (Memory clear)

55 **DT** 54 **DT** 51 **DT** 55 **DT**

53 **DT** **DT** 54 **DT** 52 **DT**

SD 52.

(Sample standard deviation σn^{-1})

SHIFT σn^{-1} **=** 1.407885953

(Population standard deviation σn)

SHIFT σn **=** 1.316956719

(Arithmetic Mean \bar{x})

SHIFT \bar{x} **=** 53.375

(Number of data n)

RCL C 8.

(Sum of Values $\sum x$)

RCL B 427.

(Sum of square of values $\sum x^2$)

RCL A 22805.

Data Input Precautions

- **DT** **DT** inputs the same data twice.
- You can also input multiple entries of the same data using **SHIFT** **;**. To input the date 110 ten times, for example, press 110 **SHIFT** **;** 10 **DT**.
- The above results can be obtained in any order and not necessarily that shown above.
- To delete data you have just input, press **SHIFT** **CL**.
- **Regression Calculations (REG Mode)**
 - Press **MODE** **3** to enter the REG mode and then select one of the following regression types.
 - 1**: Lineal Regression
 - 2**: Logarithmic Regression
 - 3**: Exponential Regression
 - ▶ 1**: Power Regression
 - ▶ 2**: Inverse Regression
 - Data input always starts with **SHIFT** **Sci** **=** to clear statistical memory.
 - The values produced by a regression calculation depend on the values input and results can be recalled using the key operations shown in the table below.

RCL A	Σx^2	SHIFT $x\sigma n-1$	$x\sigma n-1$
RCL B	Σx	SHIFT \bar{y}	\bar{y}
RCL C	n	SHIFT $y\sigma n$	$y\sigma n$
RCL D	Σy^2	SHIFT $y\sigma n-1$	$y\sigma n-1$
RCL E	Σy	SHIFT A	Regression coefficient A
RCL F	Σxy	SHIFT B	Regression coefficient B
SHIFT \bar{x}	\bar{x}	SHIFT r	Regression coefficient r
SHIFT $x\sigma n$	$x\sigma n$	SHIFT \hat{x}	\hat{x}
		SHIFT \hat{y}	\hat{y}

• Linear Regression

The regression formula for linear regression is:

$$y = A + Bx.$$

• Example: Atmospheric pressure vs. Temperature

Temperature	Atmospheric pressure
10°C	1003 hPa
15°C	1005 hPa
20°C	1010 hPa
25°C	1011 hPa
30°C	1014 hPa

Perform linear regression to determine the regression formula terms and correlation coefficient for the data nearby. Next, use the regression formula to estimate atmospheric pressure at 18° and temperature at 1000 hPa.

Enter REG mode (Linear Regression)

MODE 3 1
 SHIFT Sci =
 (Memory clear)

10 [] 1003 [DT] 15 [] 1005 [DT]

20 [] 1010 [DT] 25 [] 1011 [DT]

30 [] 1014 [DT]

REG 30.

(Regression coefficient A)

[SHIFT] [A] [=]

997.4

(Regression coefficient B)

[SHIFT] [B] [=]

0.56

(Correlation coefficient r)

[SHIFT] [r] [=]

0.982607368

(Atmospheric pressure at 18°C) 18 [SHIFT] [y]

1007.48

(Temperature at 1000 hPa) 1000 [SHIFT] [x]

4.642857143

• Data Input Precautions

• [DT] [DT] inputs the same data twice.

• You can also input multiple entries of the same data using [SHIFT] [;]. To input data “20 and 30” five times, for example, press 20 [] 30 [SHIFT] [;] 5 [DT].

• The above results can be obtained in any order, and not necessarily that shown above.

• To delete data you have just input, press [SHIFT] [CL].

Degrees, Minutes, Seconds Calculations

• You can perform sexagesimal calculations using degrees (hours), minutes, and seconds, and convert between sexagesimal and decimal values.

• Example 1: To convert the decimal value 2.258 to a sexagesimal value

2,258 [=]

2.258

[SHIFT] [DMS]

2°15'28.8"

- Example 2: To perform the following calculation:

$12^{\circ}34'56'' \times 3.45$

$$12 \text{ [o, '']} 34 \text{ [o, '']} 56 \text{ [o, '']} \text{ [x]} 3.45 \text{ [] } 0. \text{ [] } = \text{ [] } 43^{\circ}24'31.2''$$

Technical Information

- **When you have a problem ...**

If calculation results are not what you expect or if an error occurs, perform the following steps:

1. **[MODE]** **[1]** (COMP mode)
2. **[MODE]** **[MODE]** **[1]** (DEG mode)
3. **[MODE]** **[MODE]** **[MODE]** **[3]** (NORM mode)
4. Check the formula you are working with to confirm it is correct.
5. Enter the correct modes to perform the calculation and try again.

If the above steps do not correct your problem, press **[RESET]** button on the back of the calculator to reset it.

Pressing **[RESET]** button deletes all data stored in calculator memory. Make sure you always keep written copies of all important data.

- **Error Messages**

The calculator is locked up while an error message is on the display. Press **[ON/C]** to clear the error or press **[◀]** or **[▶]** to display the calculation and correct the problem.

See “**Error Locator**” for details.

Ma ERROR

- **Cause**

- Calculation result is outside the allowable calculation range.
- Attempt to perform a function calculation using a value that exceeds the allowable input range.
- Attempt to perform an illogical operation (division by zero, etc.).

- **Action**

- Check your input values and make sure they are all within the allowable ranges. Pay special attention to values in any memory areas you are using.

Stk ERROR

- **Cause**

- Capacity of the numeric stack or operator stack is exceeded.

- **Action**



- Simplify the calculation. The numeric stacks has 10 levels and the operator stack has 24 levels.
- Divide your calculation into two or more separate parts.

Syn ERROR

- **Cause**

- Attempt to perform an illegal mathematical operation.

- **Action**

- Press  or  to display the calculation with the cursor located at the location of the error.

Make necessary corrections.

Arg ERROR

- **Cause**

- Improper use of argument.

- **Action**

- Press \leftarrow or \rightarrow to display the location of the cause of the error and make required corrections.

- **Order of Operations**

Calculations are performed in the following order of precedence.

1. Coordinate transformation: Pol (x,y), Rec (r,0)

2. Type A Functions:

with these functions, the value is entered and then the function key is pressed.

x^2 , x^{-1} , $x!$, $^{\circ}$, $'$, $"$

3. Powers and roots: x^y , $x\sqrt{\quad}$

4. a^b/c

5. Abbreviated multiplication format in front of π , memory name, or variable name: 2π , $5a$, πA , etc.

6. Type B Functions:

With these functions, the function key is pressed and then the value is entered.

$\sqrt{\quad}$, $\sqrt[3]{\quad}$, \log , \ln , e^x , 10^x , \sin , \cos , \tan , \sin^{-1} , \cos^{-1} , \tan^{-1} , \sinh , \cosh , \tanh , \sinh^{-1} , \cosh^{-1} , \tanh^{-1} , $(-)$

7. Abbreviated multiplication format in front of Type B functions: $2\sqrt{3}$, $A\log 2$ etc.

8. Permutation and combination: nPr , nCr

9. x , \div

10. $+$, $-$

* Operations of the same precedence are performed from right to left. $e^{\ln \sqrt{120}} \rightarrow e^{\{\ln(\sqrt{120})\}}$

Other operations are performed from left to right.

* Operations enclosed in parentheses are performed first.

• Stacks

This calculator uses memory areas, called "stacks", to temporarily store values (numeric stack) and commands (command stack) according to their precedence during calculations. The numeric stack has 10 levels and the command stack has 24 levels.

A stack error (Stk ERROR) occurs whenever you try to perform a calculation that is so complex that the capacity of a stack is exceeded.

• Power Supply

This calculator is powered by (L1154, LR44 o AG13) x 2 button battery.

• Replacing the Battery

Dim figures on the display of the calculator indicate that battery power is low. Continued use of the calculator when the battery is low can result in improper operation. Replace the battery as soon as possible when display figures become dim.

- **To replace the battery**

1. Press **OFF** to turn power off.
2. Remove the two screws that hold the battery cover in place and then remove the battery cover.
3. Remove the old battery.
4. Wipe off the side of new battery with a dry, soft cloth. Load into the unit with the positive (+) side facing up (so you can see it).
5. Replace the battery cover and secure it in place with the two screws.
6. Use a thin, pointed object to press **RESET**. Be sure not to skip this step.
7. Press **ON/C** to turn power on.

- **Auto Power OFF**

Calculator power automatically turns off if you do not perform any operation for about six minutes. When it happens, press **ON/C** to turn power back on.

• Input Rangers

Internal digits: 12

Accuracy: As a rule, accuracy is ± 1 at the 10th digit.

Functions	Input Range
Sin x	DEG $0 < x < 4.499999999 \times 10^{10}$
	RAD $0 \leq x \leq 785398163.3$
	GRA $0 \leq x \leq 4.499999999 \times 10^{10}$
Cos x	DEG $0 \leq x \leq 4.500000008 \times 10^{10}$
	RAD $0 \leq x \leq 785398164.9$
	GRA $0 \leq x \leq 5.000000009 \times 10^{10}$
Tan x	DEG same as sin x , except $ x = (2n-1) \times 90$. (n is an integer)
	RAD same as sin x , except $ x = (2n-1) \times \pi/2$. (n is an integer)
	GRA same as sin x , except $ x = (2n-1) \times 100$. (n is an integer)
Sin ^{-1}x	$0 \leq x \leq 1$
Cos ^{-1}x	
Tan ^{-1}x	$0 \leq x \leq 9.999999999 \times 10^{99}$
Sinh x	$0 \leq x \leq 230.2585092$
Cosh x	
Sinh ^{-1}x	$0 \leq x \leq 4.999999999 \times 10^{99}$
Cosh ^{-1}x	
Tanh x	$0 \leq x \leq 9.999999999 \times 10^{-1}$
Tanh ^{-1}x	
log x /ln x	$1 \times 10^{-99} \leq x < 1 \times 10^{100}$
10 x	$-9.999999999 \times 10^{99} \leq x \leq 99.999999999$
e x	$-9.999999999 \times 10^{99} \leq x \leq 99.999999999$
\sqrt{x}	$0 \leq x < 1 \times 10^{100}$
x^2	$x < 1 \times 10^{50}$
1/ x	$x < 1 \times 10^{100}$; $x \neq 0$
$\sqrt[3]{x}$	$x < 1 \times 10^{100}$
$x!$	$0 \leq x \leq 69$ (x is an integer)

nPr	$0 \leq n \leq 99, r \leq n$ (n, r is an integer) $1 \leq n!/(n-r)! \leq 9.999999999 \times 10^{99}$
nCr	$0 \leq n \leq 99, r \leq n$ (n, r is an integer)
Pol (x,y)	$ x , y \leq 9.999999999 \times 10^{49}$ $(x^2 + y^2) < 9.999999999 \times 10^{99}$
Rec (r,0)	$0 \leq r \leq 9.999999999$ 0: same as $\sin x$
o , "	$ a , b, c < 1 \times 10^{100}$ $0 \leq b, c$
o ← , "	$ x < 1 \times 10^{100}$ Decimal -- Sexagesimal conversions $0^{\circ}0^{\circ}0^{\circ} \leq x \leq 9.999999999 \times 10^{99^{\circ}59^{\circ}59^{\circ}}$
x^y	$x > 0: -1 \times 10^{100} < y \log x < 100$ $x = 0: 0 < y < 1 \times 10^{100}$ $x < 0: y = n, \frac{1}{2n+1}$ (n is an integer) However: $-1 \times 10^{100} < y \log x < 100$
$x^{\sqrt{y}}$	$y > 0: x \neq 0$ $-1 \times 10^{100} < \frac{1}{x} \log y < 100$ $y = 0: x > 0$ $y < 0: 2n+1, \frac{1}{n}$ ($n \neq 0; n$ is an integer) However: $-1 \times 10^{100} < 1/x \log y < 100$
$a \frac{b}{c}$	Total of integer, numerator, and denominator must be 10 digits or less (including division marks)
SD (REG)	$ x < 1 \times 10^{50}$ $ y < 1 \times 10^{50}$ $ n < 1 \times 10^{100}$ $x \oslash n, y \oslash n, \hat{x}, \hat{y}$ $A, B, r: n \neq 0$ $x \oslash n - 1, y \oslash n - 1: n \neq 0, 1$

- Errors are cumulative with such internal continuous calculations as x^y , $x^{\sqrt{y}}$, $x!$ and $\sqrt[3]{x}$, so accuracy may be adversely affected.