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SHARP

SCIENTIFIC CALCULATOR
MODEL **EL-510RT**

OPERATION MANUAL

PRINTED IN CHINA
18CSC(TINSEA055THMV)

INTRODUCTION

About the **calculation examples (including some formulas and tables)**, refer to the reverse side of the manual. **Refer to the number on the right of each title on the manual for use.** After reading this manual, store it in a convenient location for future reference.

Operational Notes

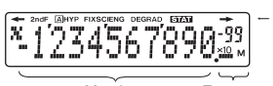
1. Do not carry the calculator in the back pocket of slacks or trousers.
2. Do not subject the calculator to extreme temperatures.
3. Do not drop it or apply excessive force.
4. Clean only with a soft, dry cloth. Avoid using a rough cloth or anything else that may cause scratches.
5. Do not use or store the calculator where fluids can splash onto it.
6. This product, including accessories, may change due to upgrading without prior notice.

♦ Press the RESET switch (on the back), with the tip of a ball-point pen or similar object, only in the following cases. Do not use an object with a breakable or sharp tip. Note that pressing the RESET switch erases all data stored in memory.
- When using for the first time
- After replacing the battery
- To clear all memory contents
- When an abnormal condition occurs and all keys are inoperative.

If service should be required on this calculator, use only a SHARP servicing dealer, SHARP approved service facility, or SHARP repair service where available.

SHARP will not be liable nor responsible for any incidental or consequential economic or property damage caused by misuse and/or malfunctions of this product and its peripherals, unless such liability is acknowledged by law.

DISPLAY



(During actual use not all symbols are displayed at the same time.)

←/→ : Appears when the entire equation cannot be displayed. Press ◀/▶ to see the remaining (hidden) section.

2ndF : Appears when 2ndF is pressed, indicating that the functions shown in orange are enable.

A : Indicates that 2ndF ALPHA or STO (RCL) has been pressed, and entry (recall) of memory contents and recall of statistics can be performed.

HYP : Indicates that hyp has been pressed and the hyperbolic functions are enabled. If 2ndF hyp are pressed, the symbols "**2ndF HYP**" appear, indicating that inverse hyperbolic functions are enabled.

FIX/SCI/ENG: Indicates the notation used to display a value and changes each time 2ndF FSE are pressed.

DEG/RAD/GRAD: Indicates angular units and changes each time DRG is pressed.

STAT : Appears when statistics mode is selected.

M : Indicates that a numerical value is stored in the independent memory.

%/°'"/ᵇ/d : Appears when the results of coordinate conversions are displayed.

BEFORE USING THE CALCULATOR

Key Notation Used in this Manual

In this manual, key operations are described as follows:

x^2 To specify x^2 : 2ndF x^2
Exp To specify Exp: Exp

Functions that are printed in orange above the key require 2ndF to be pressed first before the key. Numbers are not shown as keys, but as ordinary numbers.

Power On and Off

Press ON/C to turn the calculator on, and 2ndF OFF to turn it off.

Editing the Equation

- Press ◀ or ▶ to move the cursor. You can also return to the equation after getting an answer by pressing ▶ (◀).
- If you need to delete a number, move the cursor to the number you wish to delete then press DEL. If the cursor is located at the right end of an equation, the DEL key will function as a back space key.
- If you need to insert a number, move the cursor to the place immediately after where you wish to insert the number then enter the number.

Clearing Methods

There are three clearing methods as follows:

Clearing operation	Entry (Display)	M*1	X,Y,r,θ*2 STAT, ANS
ON/C	○	×	×
2ndF CA	○	×	○
RESET	○	○	○

○ : Clear × : Retain

*1 Independent memory M.

*2 Temporary memories (X, Y, r, θ), statistical data, and last answer memory.

Priority Levels in Calculation

This calculator performs operations according to the following priority:

① Fractions (1⌐4, etc.) ② Functions preceded by their argument (x^{-1}, x^2, n!, etc.) ③ Y^x, $\sqrt[x]{}$ ④ Implied multiplication of a memory value (2Y, etc.) ⑤ Functions followed by their argument (sin, cos, etc.)

⑥ Implied multiplication of a function (2sin30, etc.)

⑦ nCr, nPr, GCD, LCM ⑧ ×, ÷ ⑨ +, −

⑩ =, M+, M−, ⇒M, ▶DEG, ▶RAD, ▶GRAD, DATA, CD, →rθ, →xy and other calculation ending instruction

- If parentheses are used, parenthesized calculations have precedence over any other calculations.

INITIAL SETUP

Mode Selection

Normal mode: 2ndF MODE 0
Used to perform arithmetic operations and function calculations.

Statistics mode: 2ndF MODE 1
Used to perform statistical calculations.

When executing mode selection, temporary memories, statistical data and last answer memory will be cleared even when reselecting the same mode.

Selecting the Display Notation and Decimal Places

The calculator has four display notation systems for displaying calculation results. When FIX, SCI, or ENG symbol is displayed, the number of decimal places can be set to any value between 0 and 9.

Displayed values will be reduced to the corresponding number of digits.

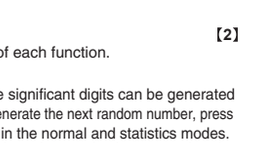
100000÷3=

[Floating point]	ON/C 100000 ÷ 3 =	33'333.33333
→[Fixed decimal point]	2ndF FSE	33'333.33333
[TAB set to 2]	2ndF TAB 2	33'333.33
→[SCIentific notation]	2ndF FSE	3.33×10^{4}
→[ENGineering notation]	2ndF FSE	33.33×10^{3}
→[Floating point]	2ndF FSE	33'333.33333

- If the value for floating point system does not fit in the following range, the calculator will display the result using scientific notation system: $0.000000001 \leq |x| \leq 9999999999$

Determination of the Angular Unit

In this calculator, the following three angular units can be specified.



SCIENTIFIC CALCULATIONS

- Press 2ndF MODE 0 to select the normal mode.
- In each example, press ON/C to clear the display.
- If the FIX, SCI, or ENG indicator is displayed, clear the indicator by pressing 2ndF FSE.

Arithmetic Operations/Constant Calculations 【1】

- The closing parenthesis) just before = or M+ may be omitted.
- The addend becomes a constant. Subtraction and division are performed in the same manner. The multiplicand becomes a constant.
- When performing calculations using constants, constants will be displayed as K.

Functions 【2】

Refer to the calculation examples of each function.

Random Numbers

A pseudo-random number with three significant digits can be generated by pressing 2ndF RANDOM =. To generate the next random number, press =. You can perform this function in the normal and statistics modes.

- Random numbers use memory Y. Each random number is generated on the basis of the value stored in memory Y (pseudo-random number series).

Angular Unit Conversions 【3】

Each time 2ndF DRG▶ are pressed, the angular unit changes in sequence.

Memory Calculations 【4】

This calculator has four temporary memories (X, Y, r, θ), one independent memory (M) and one last answer memory (ANS). Independent memory and temporary memories are only available in the normal mode.

[Temporary memories (X, Y, r, θ)]

Press STO and a variable key to store a value in memory.
Press RCL and a variable key to recall the value from that memory.
To place a variable in an equation, press 2ndF ALPHA and a variable key.
Use of RCL or 2ndF ALPHA will recall the value stored in memory using up to 14 digits.

[Independent memory (M)]

In addition to all the features of temporary memories, a value can be added to or subtracted from an existing memory value.

[Last answer memory (ANS)]

The calculation result obtained by pressing = or any other calculation ending instruction is automatically stored in the last answer memory.

Chain Calculations 【5】

This calculator allows the previous calculation result to be used in the following calculation. The previous calculation result will not be recalled after entering multiple instructions.

Fraction Calculations 【6】

This calculator performs arithmetic operations and memory calculations using fractions, and conversion between a decimal number and a fraction.

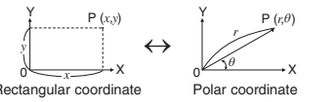
- If the number of digits to be displayed is greater than 10, the number is converted to and displayed as a decimal number.

Time, Decimal and Sexagesimal Calculations 【7】

Conversion between decimal and sexagesimal numbers can be performed. In addition, the four basic arithmetic operations and memory calculations can be carried out using the sexagesimal system.

Coordinate Conversions 【8】

- Before performing a calculation, select the angular unit.



Rectangular coordinate Polar coordinate

- The calculation result is automatically stored in memories (X, Y, r, θ).

Calculating the Greatest Common Divisor (GCD)

What is the GCD of 24 and 36? ON/C 24 2ndF GCD 36 = 12.

Calculating the Least Common Multiple (LCM)

What is the LCM of 15 and 9? ON/C 15 2ndF LCM 9 = 45.

STATISTICAL CALCULATIONS 【9】

Press 2ndF MODE 1 to select statistics mode.
The following statistics can be obtained:

$\bar{x}$	Mean of samples (x data)
sx	Sample standard deviation (x data)
σx	Population standard deviation (x data)
n	Number of samples
Σx	Sum of samples (x data)
Σx^2	Sum of squares of samples (x data)

Entered data are kept in memory until 2ndF CA or 2ndF MODE 1 are pressed. Before entering new data, clear the memory contents.

[Data Entry]

Data DATA
Data FREQ(,) *frequency* DATA (To enter multiples of the same data)

[Data Correction]

Correction prior to pressing DATA:
Delete incorrect data with ON/C.

Correction after pressing DATA:
Press ▶ to confirm the latest entry and press 2ndF CD to delete it.

Statistical Calculation Formulas 【10】

In the statistical calculation formulas, an error will occur when:

- the absolute value of the intermediate result or calculation result is equal to or greater than 1×10^{100}.
- the denominator is zero.
- an attempt is made to take the square root of a negative number.

ERROR AND CALCULATION RANGES

Errors

An error will occur if an operation exceeds the calculation ranges, or if a mathematically illegal operation is attempted.
When an error occurs, pressing ◀ (or ▶) automatically moves the cursor back to the place in the equation where the error occurred.
Edit the equation or press ON/C to clear the equation.

Error Codes and Error Types

Syntax error (Error 1):

- An attempt was made to perform an invalid operation.
  Ex. 2 2ndF →rθ

Calculation error (Error 2):

- The absolute value of an intermediate or final calculation result equals or exceeds 10^{100}.
- An attempt was made to divide by 0.
- The calculation ranges were exceeded while performing calculations.

Depth error (Error 3):

- The available number of buffers was exceeded. (There are 10 buffers* for numeric values and 24 buffers for calculation instructions). *5 buffers in STAT mode.

Equation too long (Error 4):

- The equation exceeded its maximum input buffer (159 characters). An equation must be shorter than 159 characters.

Calculation Ranges 【11】

- Within the ranges specified below, this calculator is accurate to ±1 in the least significant digit of the mantissa. When performing continuous calculations (including chain calculations), errors accumulate leading to reduced accuracy. (This is the same for y^x, $\sqrt[x]{}$, e^x, *ln*, etc., where continuous calculations are performed internally.)
- Calculation ranges
  $\pm10^{-99} \sim \pm9.999999999 \times 10^{99}$ and 0.

If the absolute value of an entry or a final or intermediate result of a calculation is less than 10^{-99}, the value is considered to be 0 in calculations and in the display.

BATTERY REPLACEMENT

Notes on Battery Replacement

Improper handling of batteries can cause electrolyte leakage or explosion. Be sure to observe the following handling rules:

- Make sure the new battery is the correct type.
- When installing, orient the battery properly as indicated in the calculator.
- The battery is factory-installed before shipment, and may be exhausted before it reaches the service life stated in the specifications.

When to Replace the Battery

If the display has poor contrast or nothing appears on the display even when ON/C is pressed in dim lighting, it is time to replace the battery.

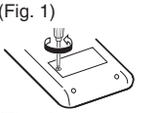
Caution

- An exhausted battery left in the calculator may leak and damage the calculator.
- Fluid from a leaking battery accidentally entering an eye could result in serious injury. Should this occur, wash with clean water and immediately consult a doctor.
- Should fluid from a leaking battery come in contact with your skin or clothes, immediately wash with clean water.
- If the product is not to be used for some time, to avoid damage to the unit from a leaking battery, remove it and store in a safe place.
- Do not leave an exhausted battery inside the product.
- Keep batteries out of the reach of children.
- Explosion risk may be caused by incorrect handling.
- Do not throw batteries into a fire as they may explode.

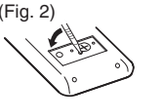
Replacement Procedure

1. Turn the power off by pressing 2ndF OFF.
2. Remove one screw. (Fig. 1)
3. Lift the battery cover to remove.
4. Remove the used battery by prying it out with a ball-point pen or other similar pointed device. (Fig. 2)
5. Install one new battery. Make sure the "+" side is facing up.
6. Replace the cover and screw.
7. Press the RESET switch (on the back).

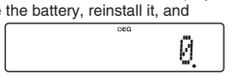
(Fig. 1)



(Fig. 2)



- Make sure that the display appears as shown below. If the display does not appear as shown, remove the battery, reinstall it, and check the display once again.



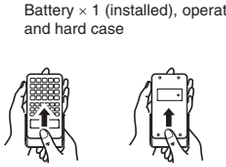
Automatic Power Off Function

This calculator will turn itself off to save battery power if no key is pressed for approximately 10 minutes.

SPECIFICATIONS

Calculations:	Scientific calculations, statistical calculations, etc.
Internal calculations:	Mantissas of up to 14 digits
Pending operations:	24 calculations 10 numeric values (5 numeric values in STAT mode)
Power source:	Built-in solar cells 1.5V ⎓(DC):Backup battery (Alkaline battery (LR1130) × 1)
Operating time: (varies according to use and other factors)	Approx. 3000 hours when continuously displaying 55555 at 25°C (77°F), using the alkaline battery only
Operating temperature:	0°C – 40°C (32°F – 104°F)
External dimensions:	76 mm (W) × 135 mm (D) × 10 mm (H) 3" (W) × 5-5/16" (D) × 13/32" (H)
Weight :	Approx. 66 g (0.15 lb) (including battery)
Accessories :	Battery × 1 (installed), operation manual, and hard case

HARD CASE



SHARP
SHARP CORPORATION

ENGLISH

EL-510RT

CALCULATION EXAMPLES
EXEMPLES DE CALCUL
ANWENDUNGSBEISPIELE

【1】

45+285÷3=	ON/C 45 + 285 ÷ 3 =	*140.*
$\frac{18+6}{15-8}$ =	(18 + 6) ÷ (15 − 8 =	*3.428571429*
42×(−5)+120=	42 × (−) 5 + 120 =	*−90.*
$(5\times10^3)\div(4\times10^{-3})$=	5 Exp 3 ÷ 4 Exp (−) 3 =	*1'250'000.*
34+57=	34 + 57 =	*91.*
45+57=	45 =	*102.*
68×25=	68 × 25 =	*1'700.*
68×40=	40 =	*2'720.*

【2】

sin60[°]=	ON/C sin 60 =	*0.866025403*
$\cos\frac{\pi}{4}$[rad]=	DRG cos (π ÷ 4) =	*0.707106781*
$\tan^{-1}1$=[g]	DRG 2ndF tan⁻¹ 1 = DRG	*50.*
(cosh 1.5 + sinh 1.5)²=	ON/C (hyp cos 1.5 + hyp sin 1.5) 2ndF x² =	*20.08553692*
$\tanh^{-1}\frac{5}{7}$=	2ndF arc hyp tan (5 ÷ 7) =	*0.895879734*
ln 20 =	2ndF ln 20 =	*2.995732274*
log 50 =	2ndF log 50 =	*1.698970004*
e^3 =	2ndF e^x 3 =	*20.08553692*
$10^{1.7}$ =	2ndF 10^x 1.7 =	*50.11872336*
$\frac{1}{6}+\frac{1}{7}$=	6 2ndF x^{-1} + 7 2ndF x^{-1} =	*0.309523809*
$8^{-2}-3^4\times5^2$=	8 y^x (−) 2 − 3 y^x 4 × 5 2ndF x^2 =	*−2'024.984375*
$(12^3)^{\frac{1}{4}}$=	12 y^x 3 y^x 4 2ndF x^{-1} =	*6.447419591*
8^3 =	8 2ndF x^3 =	*512.*
$\sqrt{49}-\sqrt[4]{81}$ =	2ndF √ 49 − 4 2ndF $\sqrt[x]{}$ 81 =	*4.*
$\sqrt[3]{27}$ =	2ndF $\sqrt[3]{}$ 27 =	*3.*
4! =	4 2ndF n! =	*24.*
${}_{10}P_3$ =	10 2ndF nPr 3 =	*720.*
${}_5C_2$ =	5 2ndF nCr 2 =	*10.*
500×25%=	500 × 25 2ndF %	*125.*
120÷400=?%	120 ÷ 400 2ndF %	*30.*
500+(500×25%)=	500 + 25 2ndF %	*625.*
400−(400×30%)=	400 − 30 2ndF %	*280.*

	$\theta = \sin^{-1}x, \theta = \tan^{-1}x$	$\theta = \cos^{-1}x$
DEG	$-90 \le \theta \le 90$	$0 \le \theta \le 180$
RAD	$-\frac{\pi}{2} \le \theta \le \frac{\pi}{2}$	$0 \le \theta \le \pi$
GRAD	$-100 \le \theta \le 100$	$0 \le \theta \le 200$

【3】

90°→ [rad]	ON/C 90 2ndF DRG▶	*1.570796327*
→ [g]	2ndF DRG▶	*100.*
→ [°]	2ndF DRG▶	*90.*
$\sin^{-1}0.8$ = [°]	2ndF sin⁻¹ 0.8 =	*53.13010235*
→ [rad]	2ndF DRG▶	*0.927295218*
→ [g]	2ndF DRG▶	*59.03344706*
→ [°]	2ndF DRG▶	*53.13010235*

【4】

	ON/C 8 × 2 STO M	*16.*
24÷(8×2)=	24 ÷ RCL M =	*1.5*
(8×2)×5=	RCL M × 5 =	*80.*
	ON/C STO M	*0.*
\$150×3:M1	150 × 3 M+	*450.*
+)\$250:M2 =M1+250	250 M+	*250.*
−)M2×5%:Discount	RCL M × 5 2ndF %	*35.*
Total=M	2ndF M− RCL M	*665.*
\$1= ¥110	110 STO Y	*110.*
¥26,510=\$?	26510 ÷ RCL Y =	*241.*
\$2,750=¥?	2750 × RCL Y =	*302'500.*
r = 3cm	3 STO r	*3.*
πr^2 = ?	π 2ndF ALPHA r 2ndF x^2 =	*28.27433388*
$\frac{24}{4+6}$ = 2.4...(A)	24 ÷ (4 + 6) =	*2.4*
3×(A)+60÷(A)=	3 × ANS + 60 ÷ ANS =	*32.2*

【5】

6+4=ANS	ON/C 6 + 4 =	*10.*
ANS+5	+ 5 =	*15.*
44+37=ANS	44 + 37 =	*81.*
$\sqrt{ANS}$=	2ndF √ =	*9.*

【6】

$3\frac{1}{2}+\frac{4}{3}=[a\frac{b}{c}]$	ON/C 3 a b/c 1 a b/c 2 + 4 a b/c 3 =	*4 ⌜5 ⌜6 **
→[a.xxx]	a b/c	*4.833333333*
→[d/c]	2ndF d/c	*29 ⌜6*
$10^{\frac{2}{3}}$=	2ndF 10^x 2 a b/c 3 =	*4.641588834*
$(\frac{2}{3})^{-1}$=	2 a b/c 3 2ndF x^{-1} =	*1 ⌜1 ⌜2*
$\sqrt{\frac{4}{9}}$ =	2ndF √ 4 a b/c 9 =	*2 ⌜3*
$\frac{2+3}{7}$ =	(2 + 3) a b/c 7 =	*5 ⌜7*
$1.25+\frac{2}{5}=$ [a.xxx] →$[a\frac{b}{c}]$	1.25 + 2 a b/c 5 = a b/c	*1.65* *1 ⌜13 ⌜20*

* $4 \lrcorner 5 \lrcorner 6 = 4\frac{5}{6}$

【7】

12°39' 18.05" → [10]	ON/C 12 D°M'S 39 D°M'S 18.05 D°M'S 2ndF ↔DEG	*12.65501389*
123.678 → [60]	123.678 2ndF ↔DEG	*123°40'40.8"*
3h30m45s + 6h45m36s = [60]	3 D°M'S 30 D°M'S 45 D°M'S + 6 D°M'S 45 D°M'S 36 D°M'S =	*10°16'21."*
3h45m − 1.69h = [60]	3 D°M'S 45 D°M'S − 1.69 = 2ndF ↔DEG	*2°3'36."*
sin62°12'24" = [10]	sin 62 D°M'S 12 D°M'S 24 D°M'S =	*0.884635235*

【8】

$\begin{pmatrix}x=6\\y=4\end{pmatrix}\rightarrow\begin{pmatrix}r=\\\theta=[°]\end{pmatrix}$	ON/C 6 2ndF , 4 2ndF →rθ 2ndF ←,→ 2ndF ←,→	^{r}*7.211102551* $^\theta$*33.69006753* ^{r}*7.211102551*
$\begin{pmatrix}r=14\\\theta=36[°]\end{pmatrix}\rightarrow\begin{pmatrix}x=\\y=\end{pmatrix}$	14 2ndF , 36 2ndF →xy 2ndF ←,→ 2ndF ←,→	^{x}*11.32623792* ^{y}*8.228993532* ^{x}*11.32623792*

【9】

DATA
95
80
80
75
75
75
50

	2ndF MODE 1	*0.*
	95 DATA	*n= 1.*
	80 DATA	*n= 2.*
	DATA	*n= 3.*
	75 FRQ(,) 3 DATA	*n= 6.*
	50 DATA	*n= 7.*
$\bar{x}$=	RCL $\bar{x}$	*75.71428571*
σx=	RCL σx	*12.37179148*
Σx=	RCL Σx	*530.*
Σx^2=	RCL Σx²	*41'200.*
sx=	RCL Sx	*13.3630621*
sx^2=	2ndF x^2 =	*178.5714286*

【10】

$$\bar{x} = \frac{\Sigma x}{n} \qquad \sigma x = \sqrt{\frac{\Sigma x^2 - n\bar{x}^2}{n}}$$

$$sx = \sqrt{\frac{\Sigma x^2 - n\bar{x}^2}{n-1}}$$

$$\Sigma x = x_1 + x_2 + \cdots + x_n$$

$$\Sigma x^2 = x_1^2 + x_2^2 + \cdots + x_n^2$$

【11】

Function Fonction Funktion	Dynamic range Plage dynamique zulässiger Bereich
sin *x*, cos *x*, tan *x*	DEG: $\lvert x\rvert < 10^{10}$ ($\tan x : \lvert x\rvert \neq 90\,(2n-1)$)* RAD: $\lvert x\rvert < \frac{\pi}{180}\times 10^{10}$ ($\tan x : \lvert x\rvert \neq \frac{\pi}{2}(2n-1)$)* GRAD: $\lvert x\rvert < \frac{10}{9}\times 10^{10}$ ($\tan x : \lvert x\rvert \neq 100\,(2n-1)$)*
$\sin^{-1}x$, $\cos^{-1}x$	$\lvert x\rvert \le 1$
$\tan^{-1}x$, $\sqrt[3]{x}$	$\lvert x\rvert < 10^{100}$
ln *x*, log *x*	$10^{-99} \le x < 10^{100}$
y^x	• $y > 0$: $-10^{100} < x \log y < 100$ • $y = 0$: $0 < x < 10^{100}$ • $y < 0$: $x = n\ (0 < \lvert x\rvert < 1 : \frac{1}{x} = 2n-1,\ x \neq 0)$*, $-10^{100} < x \log \lvert y\rvert < 100$
$\sqrt[x]{y}$	• $y > 0$: $-10^{100} < \frac{1}{x}\log y < 100$ $(x \neq 0)$ • $y = 0$: $0 < x < 10^{100}$ • $y < 0$: $x = 2n-1$ $(0 < \lvert x\rvert < 1 : \frac{1}{x} = n,\ x \neq 0)$*, $-10^{100} < \frac{1}{x}\log \lvert y\rvert < 100$
e^x	$-10^{100} < x \le 230.2585092$
10^x	$-10^{100} < x < 100$
sinh *x*, cosh *x*, tanh *x*	$\lvert x\rvert \le 230.2585092$
$\sinh^{-1}x$	$\lvert x\rvert < 10^{50}$
$\cosh^{-1}x$	$1 \le x < 10^{50}$
$\tanh^{-1}x$	$\lvert x\rvert < 1$
x^2	$\lvert x\rvert < 10^{50}$
x^3	$\lvert x\rvert < 2.15443469\times10^{33}$
$\sqrt{x}$	$0 \le x < 10^{100}$
x^{-1}	$\lvert x\rvert < 10^{100}$ $(x \neq 0)$
n!	$0 \le n \le 69$*
nPr	$0 \le r \le n \le 9999999999$* $\frac{n!}{(n-r)!} < 10^{100}$
nCr	$0 \le r \le n \le 9999999999$* $0 \le r \le 69$ $\frac{n!}{(n-r)!} < 10^{100}$
↔DEG, D°M'S	0°0'0.00001" ≤ | *x* | < 10000°
$x, y \rightarrow r, \theta$	$\sqrt{x^2+y^2} < 10^{100}$
$r, \theta \rightarrow x, y$	$0 \le r < 10^{100}$ DEG: $\lvert\theta\rvert < 10^{10}$ RAD: $\lvert\theta\rvert < \frac{\pi}{180}\times 10^{10}$ GRAD: $\lvert\theta\rvert < \frac{10}{9}\times 10^{10}$
DRG▶	DEG→RAD, GRAD→DEG: $\lvert x\rvert < 10^{100}$ RAD→GRAD: $\lvert x\rvert < \frac{\pi}{2}\times 10^{98}$
${}_nGCD_n$, ${}_nLCM_n$	$0 < n < 10^{10}$ *

* (n , r : integer / entier / ganze Zahlen)

For Australia / New Zealand only : For warranty information please see www.sharp.net.au

For Australia only:

THIS PRODUCT CONTAINS BUTTON BATTERIES. KEEP BATTERIES OUT OF REACH OF CHILDREN.

For EU only:

Manufactured by
SHARP CORPORATION
1 Takumi-cho, Sakai-ku, Sakai City,
Osaka 590-8522, Japan

In Europe represented by
Sharp Electronics Europe Ltd.
4 Furzeground Way, Stockley Park,
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Imported into Europe by
MORAVIA Europe, spol. s r.o.,
Olomoucká 83, 627 00 Brno, Czech Republic
Visit our Web site
http://www.moravia-europe.eu

Information on the Disposal of this Equipment and its Batteries

IF YOU WISH TO DISPOSE OF THIS EQUIPMENT OR ITS BATTERIES, DO NOT USE THE ORDINARY WASTE BIN ! DO NOT PUT THEM INTO A FIREPLACE !

1. In the European Union

Used electrical and electronic equipment and batteries must be collected and treated SEPARATELY in accordance with law. This ensures an environment-friendly treatment, promotes recycling of materials, and minimizes final disposal of waste. Each household should participate ! ILLEGAL DISPOSAL can be harmful to human health and the environment due to contained hazardous substances ! THIS SYMBOL appears on electrical and electronic equipment and batteries (or the packaging) to remind you of that ! If 'Hg' or 'Pb' appears below it, this means that the battery contains traces of mercury (Hg) or lead (Pb), respectively.

Take USED EQUIPMENT to a local, usually municipal, collection facility, where available. Before that, remove batteries. Take USED BATTERIES to a battery collection facility; usually a place where new batteries are sold. Ask there for a collection box for used batteries. If in doubt, contact your dealer or local authorities and ask for the correct method of disposal.

2. In other Countries outside the EU

If you wish to discard this product, please contact your local authorities and ask for the correct method of disposal.

ENGLISH

Information sur la mise au rebut de cet Équipement et de ses Piles/Batteries

SI VOUS VOULEZ METTRE AU REBUT CET ÉQUIPEMENT OU SES PILES/BATTERIES, N'UTILISEZ PAS LA POUBELLE ORDINAIRE! NE LES BRULEZ PAS DANS UNE CHEMINÉE!

1. Au sein de l'Union européenne

L'équipement électrique et électronique usagé et les piles/batteries doivent être rassemblés et traités SÉPARÉMENT conformément à la loi. Cela assure un traitement respectueux de l'environnement, promeut le recyclage de matériels et réduit au minimum le volume final de déchets. Chaque ménage devrait participer! Le DEPOT SAUVAGE peut être nuisible pour la santé humaine et l'environnement en raison de la présence de substances dangereuses! CE SYMBOLE est visible sur l'équipement électrique et électronique et sur les piles/batteries (ou sur leurs emballages) afin de vous le rappeler! Si 'Hg' ou 'Pb' apparaissent en dessous, sur la pile/batterie, cela signifie que la pile/batterie contient des traces de mercure (Hg) ou de plomb (Pb).

Déposer l'ÉQUIPEMENT USAGE à l' endroit prévu par votre municipalité, si disponible. Auparavant, ôter les Piles/Batteries usagées. Déposer des PILES/BATTERIES UTILISEES à l' endroit prévu pour la collecte de pile/batterie; cela peut être chez votre fournisseur habituel dans le collecteur approprié. Dans le doute, entrez en contact avec votre revendeur ou les autorités locales et demandez des informations sur la méthode à utiliser pour la mise au rebut.

2. Pays hors de l'Union européenne

Si vous souhaitez mettre ce produit au rebut, veuillez contacter votre administration locale qui vous renseignera sur la méthode d'élimination correcte de cet appareil.

FRANÇAIS

Informationen zur Entsorgung dieses Gerätes und der Batterien

WENN DIESES GERÄT ODER DIE BATTERIEN ENTSORGT WERDEN SOLLEN, DÜRFEN SIE NICHT ZUM HAUSMÜLL GEGEBEN WERDEN !

1. In der Europäischen Union

Gebrauchte elektrische und elektronische Geräte und Batterien müssen laut Gesetz GETRENNT gesammelt und entsorgt werden. So werden die umweltfreundliche Abfallbehandlung und das Recycling von Stoffen sichergestellt und die Rest-Abfallmengen minimiert. Jeder Haushalt sollte dies unterstützen. Die ORDNUNGSWIDRIGE ENTSORGUNG schadet wegen der schädlichen Stoffe darin der Gesundheit und der Umwelt ! DIESES ZEICHEN auf Gerät, Batterie oder Verpackung soll Sie darauf hinweisen ! Wenn darunter noch 'Hg' oder 'Pb' steht, bedeutet dies, dass Spuren von Quecksilber (Hg) or Blei (Pb) in der Batterie vorhanden sind.

Bringen Sie GEBRAUCHTE ELEKTRISCHE UND ELEKTRONISCHE GERÄTE zur einer örtlichen, meist kommunalen Sammelstelle, soweit vorhanden. Entnehmen Sie zuvor die Batterien. Bringen Sie VERBRAUCHTE BATTERIEN zu einer Batterie-Sammelstelle; zumeist dort, wo neue Batterien verkauft werden. Fragen Sie dort nach einem Sammelbehälter für verbrauchte Batterien. Wenden Sie sich im Zweifel an Ihren Händler oder Ihre örtlichen Behörden, um Auskunft über die richtige Entsorgung zu erhalten.

2. In anderen Ländern außerhalb der EU

Bitte erkundigen Sie sich bei Ihrer Gemeindeverwaltung nach dem ordnungsgemäßen Verfahren zur Entsorgung dieses Geräts.

DEUTSCH