

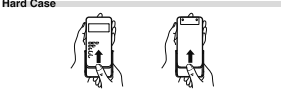
About the calculator examples (including some formulas and tables), refer to the calculator examples sheet. Refer to the on the right of each title in the manual for use. After reading this manual, store it in a convenient location for future reference.

- Operational Notes**
- Do not carry the calculator around in your pocket, so as it may break when you sit down. The display is made of glass and is particularly fragile.
 - Keep the calculator away from extreme heat such as on a car dashboard or near a heater, and avoid exposing it to excessively humid or dusty environments.
 - Since this product is not waterproof, do not use it 3 or store it where fluids, for example water, can splash onto it. Raindrops, water spray, juice, coffee, steam, perspiration, etc. will also cause malfunction.
 - Clean with a soft, dry cloth. Do not use solvents or a wet cloth. Avoid using a rough cloth or anything else that may cause scratches.
 - Do not drop it or apply excessive force.
 - Never dispose of batteries in a fire.
 - Keep batteries out of the reach of children.
 - This product, including accessories, may change due to user upgrading without prior notice.

NOTICE

- SHARP strongly recommends that separate permanent written records be kept in a safe place. Records that may be lost or altered in virtually any electronic memory product under certain circumstances. Therefore, SHARP assumes no responsibility for any loss or otherwise of records stored, whether as a result of improper use, repairs, defects, battery replacement, use after the specified battery life has expired, or any other cause.
- SHARP will not be liable nor responsible for any incidental or consequential economic or property damage caused by the use of, or malfunction of, this calculator and its peripherals, unless such liability is acknowledged by law.

- Press the RESET switch (on the front), with the tip of a ball-point pen or similar object, only in the following cases:
 - When using a breakable or sharp object to press the RESET switch erases all data stored in memory.
 - When using for the first time
 - When replacing the battery
 - To clear all memory contents
- When an abnormal condition occurs and all keys are inoperative. If the RESET switch is pressed, the calculator will return to the normal mode. SHARP approved service facility, or SHARP repair service where available.



DISPLAY

- Equation = Display
- $\sin 30 + \cos 60 = 1$
- 1234567890
- Manitissa Exponent
- During actual use, not all symbols are displayed at the same time.
 - Some of the active symbols may appear visible when viewed from a far off angle.
 - Only the symbols required for the usage under instruction are shown in the display and calculation examples.
 - Appears when the entire equation cannot be displayed.
 - Press $\square \rightarrow \square$ to see the remaining (hidden) segment.
 - Indicates the mode of expression of results in the complex calculation mode.
 - Indicates that data can be visible above/below the screen. Press $\square \rightarrow \square$ to scroll up/down the view.
 - Appears when $\square \rightarrow \square$ is pressed.
 - Indicates that $\square \rightarrow \square$ has been pressed and the hyperbolic functions are enabled. If $\square \rightarrow \square$ are pressed, the symbols $\square \rightarrow \square$ appear, indicating that inverse hyperbolic functions are enabled.
 - Appears when $\square \rightarrow \square$ is pressed.
 - ALPHA/SC/ENG: Indicates the notation used to display a value.
 - DEGRADGRAD: Indicates angular unit.

Calculations Using Engineering Prefixes [16]

Prefix	Operation	Unit
k (kilo)	$\text{MATH} \rightarrow \square \rightarrow \square$	10^3
M (mega)	$\text{MATH} \rightarrow \square \rightarrow \square$	10^6
G (giga)	$\text{MATH} \rightarrow \square \rightarrow \square$	10^9
T (tera)	$\text{MATH} \rightarrow \square \rightarrow \square$	10^{12}
M (tera)	$\text{MATH} \rightarrow \square \rightarrow \square$	10^{15}
P (peta)	$\text{MATH} \rightarrow \square \rightarrow \square$	10^{18}
n (nano)	$\text{MATH} \rightarrow \square \rightarrow \square$	10^{-9}
p (pico)	$\text{MATH} \rightarrow \square \rightarrow \square$	10^{-12}
f (femto)	$\text{MATH} \rightarrow \square \rightarrow \square$	10^{-15}

Modify Function [17]

Calculation results are internally obtained in scientific notation with up to 14 digits for the mantissa. However, since calculations are displayed in the form designated by the display notation and the number of decimal places indicated, the internal calculation result may differ from that shown in the display. By using the modify function, the internal value is converted to match that of the display, so that the displayed value can be used without error in subsequent operations.

Solver Function [18]

- The x value can be found that reduces an entered equation to "0". This function uses Newton's method to obtain an approximation. Depending on the function (e.g. periodic) or start value, an error may occur (Error 2) due to there being no convergence to the solution for the equation.
- Value obtained by this function may include a margin of error. If it is larger than acceptable, recalculate the solution after changing Start and Δx values.
- Change the Start value (e.g. to a negative value) or Δx value (e.g. to a smaller value) if:
 - no solution can be found (Error 2);
 - More than two solutions appear to be possible (e.g. a cubic equation).
- To improve the arithmetic precision.
- The calculation result is stored in the X memory.

(Performing Solver function)

- Press $\text{MODE} \rightarrow \square$.
- Input a formula with an x variable.
- Press $\text{ENTER} \rightarrow \square$.
- Input Start value and press ENTER . The default value is "0".
- Input Δx value (minute interval).
- Press ENTER .

SIMULATION CALCULATION (ALGB) [19]

If you have to find a value consecutively using the same formula, you can find a value by finding the variable x in $2x + 2y + 41$, once you enter the equation, all you have to do is specify the value for the variable in the formula.

Storable variables: A-F, M, X and Y

Unusable functions: Random function

Simulation calculations can only be executed in the normal mode.

Calculation ending instructions other than $\square$ cannot be used.

Performing Calculations [20]

- Press $\text{MODE} \rightarrow \square$.
- Input a formula with at least one variable.
- Press $\text{ENTER} \rightarrow \square$.
- Variable input screen will appear. Input the value of the flashing variable, then press $\text{ENTER} \rightarrow \square$ to confirm. The calculation result will be displayed after entering the value of all used variables.
- Only numerical values are allowed as variables. Input of formulas is not permitted.
- In completing the calculation, press $\text{ENTER} \rightarrow \square$ to perform calculations using the same formula.
- Variables and numerical values stored in the memories will be displayed in the variable input screen. To change a numerical value, input the new value and press ENTER .
- Performing simulation calculation will cause memory locations to be overwritten with new values.

STATISTICAL CALCULATIONS [20]

Press $\text{MODE} \rightarrow \square$ to select the statistical mode. The seven statistical calculations listed below can be performed. After entering statistics mode, select the desired sub-mode by pressing the number key corresponding to your choice.

To change statistical sub-mode, reselect statistics mode (press $\text{MODE} \rightarrow \square$), then select the required sub-mode.

- $\square$ (SD) : Single-variable statistics
- $\square$ (LSD) : Linear regression calculation
- $\square$ (QLAD) : Quadratic regression calculation
- $\square$ (EXP) : Exponential regression calculation
- $\square$ (LOG) : Logarithmic regression calculation
- $\square$ (POT) : Power regression calculation
- $\square$ (INV) : Inverse regression calculation

The following statistics can be obtained for each statistical calculation (refer to the table below).

Single-variable statistical calculation

Statistics of 1 and Σ and of the normal probability function

Linear regression calculation

Statistics of 1 and Σ , and in addition, estimate of r for a given x (estimate y) and estimate of r for a given y (estimate x)

- STAT : Appears when matrix mode is selected.
- LIST : Appears when list mode is selected.
- STAT : Appears when statistics mode is selected.
- Indicates that the calculator is the independent memory.
- Indicates that the calculator is waiting for a numerical value to be entered, such as during simulation calculation.
- Appears when the calculator shows an angle as the result in the normal calculation mode.
- Indicates an imaginary number is being displayed in the complex calculation mode.

BEFORE USING THE CALCULATOR

Key Notation Used in This Manual

In this manual, key operations are described as follows:

- To specify x : $\text{MATH} \rightarrow \square$
- To specify y : $\text{MATH} \rightarrow \square$
- To specify z : $\text{MATH} \rightarrow \square$

Functions that are printed in orange above the key require $\square$ to be pressed first before the key. When you specify the memory, $\square$ is used. Numbers for input value are not shown as keys, but as ordinary numbers.

Power On and Off

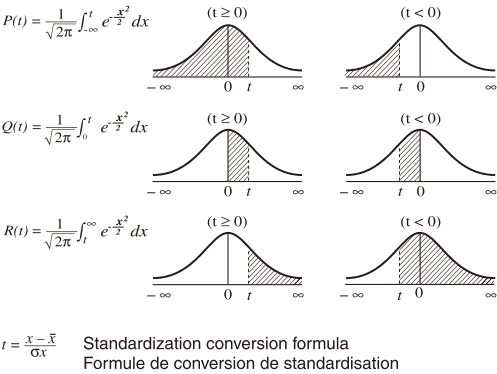
Press ON to turn the calculator on, and OFF to turn it off.

Clearing the Entry and Memories

Operation Entry M A-F X-Y STAT VAR $\rightarrow$ matA-D $\rightarrow$ L1-14 $\rightarrow$

(ON) (CE) (C) (MC) (M) (A) (F) (X) (Y) (STAT) (VAR) (L1) (L2) (L3) (L4) (L5) (L6) (L7) (L8) (L9) (L10) (L11) (L12) (L13) (L14) (L15) (L16) (L17) (L18) (L19) (L20) (L21) (L22) (L23) (L24) (L25) (L26) (L27) (L28) (L29) (L30) (L31) (L32) (L33) (L34) (L35) (L36) (L37) (L38) (L39) (L40) (L41) (L42) (L43) (L44) (L45) (L46) (L47) (L48) (L49) (L50) (L51) (L52) (L53) (L54) (L55) (L56) (L57) (L58) (L59) (L60) (L61) (L62) (L63) (L64) (L65) (L66) (L67) (L68) (L69) (L70) (L71) (L72) (L73) (L74) (L75) (L76) (L77) (L78) (L79) (L80) (L81) (L82) (L83) (L84) (L85) (L86) (L87) (L88) (L89) (L90) (L91) (L92) (L93) (L94) (L95) (L96) (L97) (L98) (L99) (L100) (L101) (L102) (L103) (L104) (L105) (L106) (L107) (L108) (L109) (L110) (L111) (L112) (L113) (L114) (L115) (L116) (L117) (L118) (L119) (L120) (L121) (L122) (L123) (L124) (L125) (L126) (L127) (L128) (L129) (L130) (L131) (L132) (L133) (L134) (L135) (L136) (L137) (L138) (L139) (L140) (L141) (L142) (L143) (L144) (L145) (L146) (L147) (L148) (L149) (L150) (L151) (L152) (L153) (L154) (L155) (L156) (L157) (L158) (L159) (L160) (L161) (L162) (L163) (L164) (L165) (L166) (L167) (L168) (L169) (L170) (L171) (L172) (L173) (L174) (L175) (L176) (L177) (L178) (L179) (L180) (L181) (L182) (L183) (L184) (L185) (L186) (L187) (L188) (L189) (L190) (L191) (L192) (L193) (L194) (L195) (L196) (L197) (L198) (L199) (L200) (L201) (L202) (L203) (L204) (L205) (L206) (L207) (L208) (L209) (L210) (L211) (L212) (L213) (L214) (L215) (L216) (L217) (L218) (L219) (L220) (L221) (L222) (L223) (L224) (L225) (L226) (L227) (L228) (L229) (L230) (L231) (L232) (L233) (L234) (L235) (L236) (L237) (L238) (L239) (L240) (L241) (L242) (L243) (L244) (L245) (L246) (L247) (L248) (L249) (L250) (L251) (L252) (L253) (L254) (L255) (L256) (L257) (L258) (L259) (L260) (L261) (L262) (L263) (L264) (L265) (L266) (L267) (L268) (L269) (L270) (L271) (L272) (L273) (L274) (L275) (L276) (L277) (L278) (L279) (L280) (L281) (L282) (L283) (L284) (L285) (L286) (L287) (L288) (L289) (L290) (L291) (L292) (L293) (L294) (L295) (L296) (L297) (L298) (L299) (L300) (L301) (L302) (L303) (L304) (L305) (L306) (L307) (L308) (L309) (L310) (L311) (L312) (L313) (L314) (L315) (L316) (L317) (L318) (L319) (L320) (L321) (L322) (L323) (L324) (L325) (L326) (L327) (L328) (L329) (L330) (L331) (L332) (L333) (L334) (L335) (L336) (L337) (L338) (L339) (L340) (L341) (L342) (L343) (L344) (L345) (L346) (L347) (L348) (L349) (L350) (L351) (L352) (L353) (L354) (L355) (L356) (L357) (L358) (L359) (L360) (L361) (L362) (L363) (L364) (L365) (L366) (L367) (L368) (L369) (L370) (L371) (L372) (L373) (L374) (L375) (L376) (L377) (L378) (L379) (L380) (L381) (L382) (L383) (L384) (L385) (L386) (L387) (L388) (L389) (L390) (L391) (L392) (L393) (L394) (L395) (L396) (L397) (L398) (L399) (L400) (L401) (L402) (L403) (L404) (L405) (L406) (L407) (L408) (L409) (L410) (L411) (L412) (L413) (L414) (L415) (L416) (L417) (L418) (L419) (L420) (L421) (L422) (L423) (L424) (L425) (L426) (L427) (L428) (L429) (L430) (L431) (L432) (L433) (L434) (L435) (L436) (L437) (L438) (L439) (L440) (L441) (L442) (L443) (L444) (L445) (L446) (L447) (L448) (L449) (L450) (L451) (L452) (L453) (L454) (L455) (L456) (L457) (L458) (L459) (L460) (L461) (L462) (L463) (L464) (L465) (L466) (L467) (L468) (L469) (L470) (L471) (L472) (L473) (L474) (L475) (L476) (L477) (L478) (L479) (L480) (L481) (L482) (L483) (L484) (L485) (L486) (L487) (L488) (L489) (L490) (L491) (L492) (L493) (L494) (L495) (L496) (L497) (L498) (L499) (L500) (L501) (L502) (L503) (L504) (L505) (L506) (L507) (L508) (L509) (L510) (L511) (L512) (L513) (L514) (L515) (L516) (L517) (L518) (L519) (L520) (L521) (L522) (L523) (L524) (L525) (L526) (L527) (L528) (L529) (L530) (L531) (L532) (L533) (L534) (L535) (L536) (L537) (L538) (L539) (L540) (L541) (L542) (L543) (L544) (L545) (L546) (L547) (L548) (L549) (L550) (L551) (L552) (L553) (L554) (L555) (L556) (L557) (L558) (L559) (L560) (L561) (L562) (L563) (L564) (L565) (L566) (L567) (L568) (L569) (L570) (L571) (L572) (L573) (L574) (L575) (L576) (L577) (L578) (L579) (L580) (L581) (L582) (L583) (L584) (L585) (L586) (L587) (L588) (L589) (L590) (L591) (L592) (L593) (L594) (L595) (L596) (L597) (L598) (L599) (L600) (L601) (L602) (L603) (L604) (L605) (L606) (L607) (L608) (L609) (L610) (L611) (L612) (L613) (L614) (L615) (L616) (L617) (L618) (L619) (L620) (L621) (L622) (L623) (L624) (L625) (L626) (L627) (L628) (L629) (L630) (L631) (L632) (L633) (L634) (L635) (L636) (L637) (L638) (L639) (L640) (L641) (L642) (L643) (L644) (L645) (L646) (L647) (L648) (L649) (L650) (L651) (L652) (L653) (L654) (L655) (L656) (L657) (L658) (L659) (L660) (L661) (L662) (L663) (L664) (L665) (L666) (L667) (L668) (L669) (L670) (L671) (L672) (L673) (L674) (L675) (L676) (L677) (L678) (L679) ($\$

[23]



[24] [MODE] (2-VLE)

$\begin{cases} a_1x + b_1y = c_1 \\ a_2x + b_2y = c_2 \end{cases}$	$ D = \begin{vmatrix} a_1 & b_1 \\ a_2 & b_2 \end{vmatrix}$
MODE 2 0 2 ENT 3 ENT 4 ENT 5 ENT 6 ENT 7	
$x = ?$	ENT [x]
$y = ?$	ENT [y]
$\det(D) = ?$	ENT [det(D)]

−1.

2.

−3.

[25] [MODE] (3-VLE)

$\begin{cases} a_1x + b_1y + c_1z = d_1 \\ a_2x + b_2y + c_2z = d_2 \\ a_3x + b_3y + c_3z = d_3 \end{cases}$	$ D = \begin{vmatrix} a_1 & b_1 & c_1 \\ a_2 & b_2 & c_2 \\ a_3 & b_3 & c_3 \end{vmatrix}$
MODE 2 0 1 ENT 1 ENT 1 +/- ENT 9 ENT 6 ENT 6 ENT 1 +/- ENT 17 ENT 14 ENT 7 +/- ENT 2 ENT 42	
$x = ?$	ENT [x]
$y = ?$	ENT [y]
$z = ?$	ENT [z]
$\det(D) = ?$	ENT [det(D)]

3.238095238

−1.638095238

−74

105.

[26] [MODE] (QUAD, CUBIC)

$\begin{cases} 3x^2 + 4x - 95 = 0 \\ x1 = ? \\ x2 = ? \end{cases}$	MODE 2 0 3 ENT 4 ENT +/- ENT 95	
	ENT	
	ENT	
	2ndF ENT	
$\begin{cases} 5x^3 + 4x^2 + 3x + 7 = 0 \\ x1 = ? \\ x2 = ? \end{cases}$	MODE 2 0 5 ENT 4 ENT 3 ENT 7	
	ENT	
	ENT	
	2ndF ↔	
$\begin{cases} x3 = ? \end{cases}$	ENT	
	2ndF ↔	

−1.233600307

0.216800153

+ 1.043018296*i*

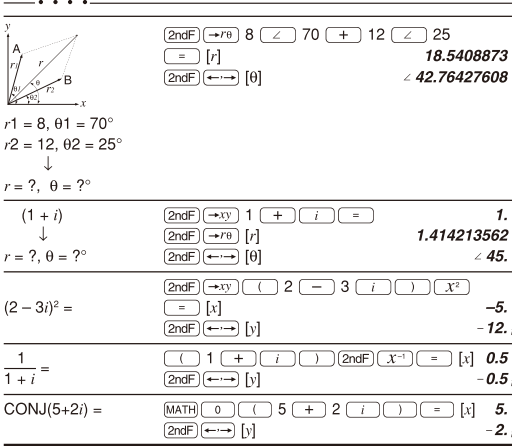
0.216800153

− 1.043018296*i*

[27] [MODE] (CPLX)

$\begin{cases} (12-6i) + (7+15i) - (11+4i) = \end{cases}$	MODE 3 12 [-] 6 [i] + 7 + 15 [i] - [] 11 + 4 [i] [] = [x]	
	2ndF ↔ [y]	
	2ndF ↔ [x]	
$\begin{cases} 6 \times (7-9i) \times (-5+8i) = \end{cases}$	6 [X] [] 7 [-] 9 [i] [] X [] 5 + [-] 4 [i] [] = [x]	
	2ndF ↔ [y]	
$\begin{cases} 16 \times (\sin 30^\circ + i \cos 30^\circ) \div (\sin 60^\circ + i \cos 60^\circ) = \end{cases}$	16 [X] [] sin 30 + [i] cos 30 [] ÷ [] sin 60 + [i] cos 60 [] = [x]	
	2ndF ↔ [y]	

+ 8.*i*



$\text{cumul matA} = \begin{bmatrix} 1 & 2 \\ 4 & 6 \end{bmatrix}$	ON/C MATH 3 2 MATH 0 0 =	
$\text{aug}(\text{matA}, \text{matB}) = \begin{bmatrix} 1 & 2 & 3 & 1 \\ 3 & 4 & 2 & 6 \end{bmatrix}$	ON/C MATH 3 3 MATH 0 0	2ndF → MATH 0 1 [] =
$\text{identity } 3 = \begin{bmatrix} 1 & 0 & 0 \\ 0 & 1 & 0 \\ 0 & 0 & 1 \end{bmatrix}$	ON/C MATH 3 4 3 =	
$\text{rnd_mat}(2, 3)$	ON/C MATH 3 5 2 2ndF → 3 [] =	
$\det \text{matA} = -2$	ON/C MATH 4 0 MATH 0 0 =	
$\text{trans matB} = \begin{bmatrix} 3 & 2 \\ 1 & 6 \end{bmatrix}$	ON/C MATH 4 1 MATH 0 1 =	
$\text{mat} \rightarrow \text{list} \begin{matrix} \text{L1: } \{1 \ 3\} \\ \text{L2: } \{3 \ 2\} \end{matrix}$	ON/C MATH 5	

[29] [MODE] (LIST)

$\begin{cases} 2, 7, 4 \rightarrow \text{L1} \\ -3, -1, -4 \rightarrow \text{L2} \end{cases}$	MODE 5 ▼ 3 DATA 2 DATA 7 DATA 4 DATA ON/C MATH 2 0 ▼ 3 DATA +/- 3 DATA +/- 1 DATA +/- 4 DATA ON/C MATH 2 1
---	--

stdDv L1 = 2.516611478	ON/C	MATH	4	6	MATH	0	0	=
vari L1 = 6.333333333	ON/C	MATH	4	7	MATH	0	0	=
o_prod(L1,L2) = {-24 -4 19}	ON/C	MATH	4	8	MATH	0	0	0
	2ndF		→	MATH	0	1	)	=
i_prod(L1,L2) = -29	ON/C	MATH	4	9	MATH	0	0	
	2ndF		→	MATH	0	1	)	=
abs L2 = 5.099019514	ON/C	MATH	4	A	MATH	0	1	=
list → matA matA: $\begin{bmatrix} 2 & -3 \\ 7 & -1 \\ 4 & -4 \end{bmatrix}$	ON/C	MATH	6					

[30]

Function Fonction	Dynamic range Plage dynamique
$\sin x, \cos x, \tan x$	DEG: $ x < 10^{10}$ ($\tan x : x \neq 90 \ (2n-1)^*$) RAD: $ x < \frac{\pi}{180} \times 10^{10}$ ($\tan x : x \neq \frac{\pi}{2} \ (2n-1)^*$) GRAD: $ x < \frac{10}{9} \times 10^{10}$ ($\tan x : x \neq 100 \ (2n-1)^*$)
$\sin^{-1}x, \cos^{-1}x$	$ x \leq 1$
$\tan^{-1}x, \sqrt[3]{x}$	$ x < 10^{100}$
$\ln x, \log x$	$10^{-99} \leq x < 10^{100}$
y^x	• $y > 0$: $-10^{100} < x \log y < 100$ • $y = 0$: $0 < x < 10^{100}$ • $y < 0$: $x = n$ ($0 < x < 1 : \frac{1}{x} = 2n-1, x \neq 0$)*, $-10^{100} < x \log y < 100$
$x\sqrt[y]{x}$	• $y > 0$: $-10^{100} < \frac{1}{x} \log y < 100 \ (x \neq 0)$ • $y = 0$: $0 < x < 10^{100}$ • $y < 0$: $x = 2n-1$ ($0 < x < 1 : \frac{1}{x} = n, x \neq 0$)*, $-10^{100} < \frac{1}{x} \log y < 100$
e^x	$-10^{100} < x \leq 230.2585092$
10^x	$-10^{100} < x < 100$
$\sinh x, \cosh x, \tanh x$	$ x \leq 230.2585092$
$\sinh^{-1} x$	$ x < 10^{50}$
$\cosh^{-1} x$	$1 \leq x < 10^{50}$
$\tanh^{-1} x$	$ x < 1$
x^2	$ x < 10^{50}$
x^3	$ x < 2.15443469 \times 10^{33}$
$\sqrt{x}$	$0 \leq x < 10^{100}$
x^{-1}	$ x < 10^{100} \ (x \neq 0)$
$n!$	$0 \leq n \leq 69^*$
$n\Pr$	$0 \leq r \leq n \leq 9999999999^*$ $\frac{n!}{(n-r)!} < 10^{100}$
nCr	$0 \leq r \leq n \leq 9999999999^*$ $0 \leq r \leq 69$ $\frac{n!}{(n-r)!} < 10^{100}$
$\leftrightarrow \text{DEG}, \text{D}^\circ\text{M}'\text{S}$	$0^\circ 0' 0.00001'' \leq x < 10000^\circ$
$x, y \rightarrow r, \theta$	$\sqrt{x^2 + y^2} < 10^{100}$
$r, \theta \rightarrow x, y$	$0 \leq r < 10^{100}$ DEG: $ \theta < 10^{10}$ RAD: $ \theta < \frac{\pi}{180} \times 10^{10}$ GRAD: $ \theta < \frac{10}{9} \times 10^{10}$
DRG ►	DEG→RAD, GRAD→DEG: $ x < 10^{100}$ RAD→GRAD: $ x < \frac{\pi}{2} \times 10^{98}$
$(A+B) + (C+D) i$	$ A + C < 10^{100}, B + D < 10^{100}$
$(A+Bi) - (C+D) i$	$ A - C < 10^{100}, B - D < 10^{100}$
$(A+Bi) \times (C+D) i$	$(AC - BD) < 10^{100}$ $(AD + BC) < 10^{100}$
$(A+Bi) \div (C+D) i$	$\frac{AC + BD}{C^2 + D^2} < 10^{100}$ $\frac{BC - AD}{C^2 + D^2} < 10^{100}$ $C^2 + D^2 \neq 0$

→DEC	DEC : $ x \leq 9999999999$
→BIN	BIN : $1000000000 \leq x \leq 1111111111$ $0 \leq x \leq 111111111$
→PEN	PEN : $2222222223 \leq x \leq 4444444444$ $0 \leq x \leq 222222222$
→OCT	OCT : $400000000 \leq x \leq 777777777$ $0 \leq x \leq 377777777$
→HEX	HEX : $\text{FDABF41C01} \leq x \leq \text{FFFFFFFF}$ $0 \leq x \leq 2540\text{BE3FF}$
AND	
OR	
XOR	
XNOR	
NOT	BIN : $1000000000 \leq x \leq 1111111111$ $0 \leq x \leq 111111111$ PEN : $2222222223 \leq x \leq 4444444444$ $0 \leq x \leq 222222222$ OCT : $400000000 \leq x \leq 777777777$ $0 \leq x \leq 377777777$ HEX : $\text{FDABF41C01} \leq x \leq \text{FFFFFFFF}$ $0 \leq x \leq 2540\text{BE3FE}$
NEG	BIN : $1000000001 \leq x \leq 1111111111$ $0 \leq x \leq 111111111$ PEN : $2222222223 \leq x \leq 4444444444$ $0 \leq x \leq 222222222$ OCT : $4000000001 \leq x \leq 777777777$ $0 \leq x \leq 377777777$ HEX : $\text{FDABF41C01} \leq x \leq \text{FFFFFFFF}$ $0 \leq x \leq 2540\text{BE3FF}$

* n, r: integer / entier

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- Physical Constants and Metric Conversions are shown in the tables.
- Les constants physiques et les conversion des unités sont indiquées sur les tableaux.

PHYSICAL CONSTANTS			[2ndF] [CNST] 01 — 52		
No. SYMBOL	UNIT	No. SYMBOL	UNIT	No. SYMBOL	UNIT
01 - c , c_0	m s ⁻¹	19 - μ_B	J T ⁻¹	37 - eV	J
02 - G	m ³ kg ⁻¹ s ⁻²	20 - μ_e	J T ⁻¹	38 - t	K
03 - g_N	m s ⁻²	21 - μ_N	J T ⁻¹	39 - AU	m
04 - m_e	kg	22 - μ_p	J T ⁻¹	40 - pc	m
05 - m_p	kg	23 - μ_n	J T ⁻¹	41 - $M(^{12}C)$	kg mol ⁻¹
06 - m_n	kg	24 - μ_μ	J T ⁻¹	42 - h	J s
07 - m_μ	kg	25 - λ_c	m	43 - E_h	J
08 - lu	kg	26 - $\lambda_{c,p}$	m	44 - G_0	s
09 - e	C	27 - σ	W m ⁻² K ⁻⁴	45 - α^{-1}	
10 - h	J s	28 - N_A, L	mol ⁻¹	46 - m_p/m_e	
11 - k	J K ⁻¹	29 - V_m	m ³ mol ⁻¹	47 - M_u	kg mol ⁻¹
12 - μ_0	N A ⁻²	30 - R	J mol ⁻¹ K ⁻¹	48 - λ_c, n	m
13 - ϵ_0	F m ⁻¹	31 - F	C mol ⁻¹	49 - c_i	W m ²
14 - r_e	m	32 - R_K	Ohm	50 - c_2	m K
15 - α		33 - $-e/m_e$	C kg ⁻¹	51 - Z_0	Ω
16 - a_0	m	34 - $h/2m_e$	m ² s ⁻¹	52 - atm	Pa
17 - R_∞	m ⁻¹	35 - γ_p	s ⁻¹ T ⁻¹		
18 - Φ_0	Wb	36 - K_J	Hz V ⁻¹		