TEXAS INSTRUMENTS

TI-30X IIB
and
TI-30X IIS

Scientific Calculators

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30XII/OM/1L1/B

General Information

Examples: See the last page of these instructions for keystroke examples that demonstrate many of the TI-30X II functions. Examples assume all default settings.

[ON] turns on the TI-30X II. [2nd] [OFF] turns it off and clears the display.

APD™ (Automatic Power Down™) turns off the TI-30X II automatically if no key is pressed for about 5 minutes. Press [ON] after APD. The display, pending operations, settings, and memory are retained.

2-Line Display: The first line (**Entry Line**) displays an entry of up to 88 digits (or 47 digits for Stat or Constant Entry Line). Entries begin on the left; those with more than 11 digits scroll to the right. Press ◄ and ► to scroll the line. Press [2nd] ◄ or [2nd] ► to move the cursor immediately to the beginning or end of the line.

The second line (**Result Line**) displays a result of up to 10 digits, plus a decimal point, a negative sign, a "x10" indicator, and a 2-digit positive or negative exponent. Results that exceed the digit limit are displayed in Scientific Notation.

Indicator	Definition
2nd	2nd function.
HYP	Hyperbolic function.
FIX	Fixed-decimal setting.
SCI, ENG	Scientific or Engineering Notation.
STAT	Statistical mode.
DEG, RAD, GRAD	Angle mode (degrees, radians, or gradients).
K	Constant mode is on.
x10	Precedes the exponent in Scientific or Engineering Notation.
↑ ↓	An entry is stored in memory before and/or after the active screen. Press ⊖ and ⊝ to scroll.
→ ←	An entry or menu displays beyond 11 digits. Press ◄ or ► to scroll.

2nd Functions: [2nd] displays the **2nd** indicator, and then selects the 2nd function (printed above keys) of the next key pressed. For example, [2nd] [√] 25 [ENTER] calculates the square root of 25 and returns the result, 5.

Menus: Certain TI-30X II keys display menus: [MEMVAR], [2nd] [RCL], [STO▸], [2nd] [STAT], [STATVAR], [2nd] [EXIT STAT], [PRB], [DRG], [◄▸], [2nd] [R▸P], [2nd] [SCI/ENG], [2nd] [FIX], and [2nd] [RESET].

Press ◄ or ► to move the cursor and underline a menu item. To return to the previous screen without selecting the item, press [CLEAR].

To select a menu item:
- Press [ENTER] while the item is underlined, or
- For menu items followed by an argument value, enter the argument value while the item is underlined. The item and the argument value are displayed on the previous screen.

Previous Entries   ⊖ ⊝

After an expression is evaluated, use ⊖ and ⊝ to scroll through previous entries, which are stored in the TI-30X II memory. You cannot retrieve previous entries while in **STAT** mode. You can edit a previous entry and press [ENTER] to evaluate the new expression.

Last Answer   [2nd] [ANS]

The most recently calculated result is stored to the variable **Ans**. **Ans** is retained in memory, even after the TI-30X II is turned off. To recall the value of **Ans**:
- Press [2nd] [ANS] (**Ans** displays on the screen), or
- Press any operations key ([+], [−], [x²], etc.) as the first part of an entry. **Ans** and the operator are both displayed.

Order of Operations

The TI-30X II uses EOS™ (Equation Operating System) to evaluate expressions.

1st	Expressions inside parentheses.
2nd	Functions that need a **)** and precede the argument, such as **sin**, **log**, and all **R↔P** menu items.
3rd	Fractions.
4th	Functions that are entered after the argument, such as **x²** and angle unit modifiers (° ' " r g).
5th	Exponentiation (**^**) and roots (**x√**).
6th	Negation (**-**).
7th	Permutations (**nPr**) and combinations (**nCr**).
8th	Multiplication, implied multiplication, division.
9th	Addition and subtraction.
10th	Conversions (A b/c↔d/e, F↔D, ▸DMS).
11th	[ENTER] completes all operations and closes all open parentheses.

Clearing and Correcting

[CLEAR]		Clears an error message.
		Clears characters on entry line.
		Moves the cursor to last entry in history once display is clear.
[DEL]		Deletes the character at the cursor. Deletes all characters to the right when you hold down [DEL]; then, deletes 1 character to the left of the cursor each time you press [DEL].
[2nd] [INS]		Inserts a character at the cursor.
[2nd] [CLRVAR]		Clears all memory variables.
[2nd] [STAT] **CLRDATA**		Clears all data points without exiting **STAT** mode.
[2nd] [EXIT STAT] **Y**		Clears all data points and exits **STAT** mode.
[2nd] [RESET] **Y** or [ON] & [CLEAR]		Resets the TI-30X II. Returns unit to default settings; clears memory variables, pending operations, all entries in history, and statistical data; clears constant mode and **Ans**.

Fractions   [A b/c] [2nd] [F↔D] [2nd] [A b/c↔d/e]

Fractional calculations can display fractional or decimal results. Results are automatically simplified.
- [A b/c] enters a fraction. Press [A b/c] between whole number, numerator, and denominator. The unit, numerator, and denominator must be positive integers.
- [2nd] [F↔D] converts between fractions and decimals.
- [2nd] [A b/c↔d/e] converts between mixed numbers and simple fractions.

Pi   [π]

π=3.141592653590 for calculations.
π=3.141592654 for display.

Angle Modes   [DRG] [° ' "]

[DRG] displays a menu to specify the Angle mode as degrees, radians, or gradients.

[° ' "] displays a menu to specify the Angle unit modifier—degrees (°), radians (r), gradients (g), or DMS (° ' "). It also lets you convert an angle to DMS Notation (▸DMS).

To set the Angle mode for part of an entry:
- Select the Angle mode. Entries are interpreted and results displayed according to the Angle mode, or
- Select a unit modifier (° ' " r g) for any part of an entry. Entries with unit modifiers are interpreted accordingly, overriding the Angle mode.

To convert an entry:
- Set the Angle mode to the unit you want to convert to. Then use a unit modifier (° ' " r g) to designate the unit to convert from. (Angles of trigonometric functions convert values inside parentheses first.), or
- Select ▸DMS, which converts an entry to DMS (° ' ") Notation.

Trigonometry   [SIN] [COS] [TAN]
                        [2nd] [SIN⁻¹] [COS⁻¹] [TAN⁻¹]

Enter trigonometric functions (sin, cos, tan, sin⁻¹, cos⁻¹, tan⁻¹), just as you would write them. Set the desired Angle mode before starting trigonometric calculations.

Hyperbolics   [2nd] [HYP]

[2nd] [HYP] displays the **HYP** indicator and accesses the hyperbolic function of the next trigonometry key that you press. Angle modes do not affect hyperbolic calculations.

Logarithms   [LOG] [LN] [2nd] [10ˣ] [eˣ]

[LOG] yields the common logarithm of a number.
[LN] yields the logarithm of a number to the base e (e=2.819291929).
[2nd] [10ˣ] raises 10 to the power you specify.
[2nd] [eˣ] raises e to the power you specify.

Rectangular↔Polar   [2nd] [R▸P]

[2nd] [R▸P] displays a menu to convert rectangular coordinates (x,y) to polar coordinates (r,θ) or vice versa. Set Angle mode, as necessary, before starting calculations.

Constants   [2nd] [K]

[2nd] [K] turns Constant mode on and lets you define a constant.

To store an operation to K and recall it:
1. Press [2nd] [K].
2. Enter any combination of numbers, operators, and/or values, up to 44 characters, beginning with an operator.
3. Press [ENTER] to save the operation. **K** displays in the indicator line.
4. Each subsequent time you press [ENTER], the TI-30X II recalls the stored operation and applies it to the last answer or the current entry.

Press [2nd] [K] again to turn Constant mode off.

Memory   [MEMVAR] [STO▸] [2nd] [RCL] [CLRVAR]

The TI-30X II has 5 memory variables—A, B, C, D, and E. You can store a real number or an expression that results in a real number to a memory variable.
- [MEMVAR] accesses the menu of variables.
- [STO▸] lets you store values to variables.
- [2nd] [RCL] recalls the values of variables.
- [2nd] [CLRVAR] clears all variable values.

Notation   [2nd] [FIX] [2nd] [SCI/ENG] [2nd] [EE]

[2nd] [FIX] displays the **Decimal Notation** mode menu. These modes affect *only* the display of results. **F** (default) restores standard notation (floating-decimal) format. **0123456789** sets decimal places to *n* (0–9), retaining numeric notation mode format.

[2nd] [SCI/ENG] displays the **Numeric Notation** mode menu. These modes affect *only* the display of results.
- **FLO** (default): Floating Notation, with digits to the left and right of the decimal.
- **SCI**: Scientific Notation
- **ENG**: Engineering Notation (exponent is a multiple of 3)

[2nd] [EE] enters a value in **Scientific Notation**, regardless of the numeric notation mode. Press [−] before entering a negative exponent.

Statistics [2nd] [STAT] [EXIT STAT] [DATA] [STATVAR]

1-VAR analyzes statistical data from 1 data set with 1 measured variable, *x*. **2-VAR** stats analyzes paired data from 2 data sets with 2 measured variables—*x*, the independent variable, and *y*, the dependent variable. You can enter up to 42 data sets.

To define statistical data points:
1. Press [2nd] [STAT]. Select **1-VAR** or **2-VAR** and press [ENTER]. The **STAT** indicator displays.
2. Press [DATA].
3. Enter a value for **X₁**.
4. Press ⊝.
   - In **1-VAR** stat mode, enter the frequency of occurrence (**FRQ**) of the data point. **FRQ** default=1. If **FRQ**=0, the data point is ignored.
   - In **2-VAR** stat mode, enter the value for **Y₁** and press [ENTER].
5. Repeat steps 3 and 4 until all data points are entered. You must press [ENTER] or ⊝ to save the last data point or **FRQ** value entered. If you add or delete data points, the TI-30X II automatically reorders the list.
6. When all points and frequencies are entered:
   - Press [STATVAR] to display the menu of variables (see table for definitions) and their current values, or
   - Press [DATA] to return to the blank **STAT** screen. You can do calculations with data variables ($\bar{x}$, $\bar{y}$, etc.). Select a variable from the [STATVAR] menu and then press [ENTER] to evaluate the calculation.
7. When finished:
   - Press [2nd] [STAT] and select **CLRDATA** to clear all data points without exiting **STAT** mode, or
   - Press [2nd] [EXIT STAT] [ENTER] to clear all data points, variable and **FRQ** values, and to exit **STAT** mode (**STAT** indicator turns off.)

Variables	Definition
n	Number of *x* or (*x*,*y*) data points.
$\bar{x}$ or $\bar{y}$	Mean of all *x* or *y* values.
Sx or Sy	Sample standard deviation of *x* or *y*.
σx or σy	Population standard deviation of *x* or *y*.
Σx or Σy	Sum of all *x* or *y* values.
Σx² or Σy²	Sum of all *x*² or *y*² values.
Σxy	Sum of (*x* * *y*) for all *xy* pairs.
a	Linear regression slope.
b	Linear regression *y*-intercept.
r	Correlation coefficient.
x' (2-VAR)	Uses *a* and *b* to calculate predicted *x* value when you input a *y* value.
y' (2-VAR)	Uses *a* and *b* to calculate predicted *y* value when you input an *x* value.

Probability   [PRB]

nPr	Calculates the number of possible **permutations** of *n* items taken *r* at a time, given *n* and *r*. The order of objects is important, as in a race.
nCr	Calculates the number of possible **combinations** of *n* items taken *r* at a time, given *n* and *r*. The order of objects is not important, as in a hand of cards.
!	A **factorial** is the product of the positive integers from 1 to *n*. *n* must be a positive whole number ≤ 69.
RAND	Generates a random real number between 0 and 1. To control a sequence of random numbers, store an integer (seed value) ≥ 0 to **rand**. The seed value changes randomly every time a random number is generated.
RANDI	Generates a random integer between 2 integers, *A* and *B*, where *A* ≤ **RANDI** ≤ *B*. Separate the 2 integers with a comma.

Errors

ARGUMENT — A function does not have the correct number of arguments.

DIVIDE BY 0 —
- You attempted to divide by 0.
- In statistics, n=1.

DOMAIN — You specified an argument to a function outside the valid range. For example:
- For x√: x = 0 or y < 0 and x not an odd integer.
- For yx: y and x = 0; y < 0 and x not an integer.
- For √x: x < 0.
- For LOG or LN: x ≤ 0.
- For TAN: x = 90°, -90°, 270°, -270°, 450°, etc.
- For SIN⁻¹ or COS⁻¹: |x| > 1.
- For nCr or nPr: n or r are not integers ≥ 0.
- For x!: x is not an integer between 0 and 69.

EQUATION LENGTH ERROR — An entry exceeds the digit limits (88 for Entry Line and 47 for Stat or Constant Entry lines); for example, combining an entry with a constant that exceeds the limit.

FRQ DOMAIN — FRQ value (in **1-VAR** stats) < 0 or >99, or not an integer.

OVERFLOW — |θ| ≥ 1E10, where θ is an angle in a trig, hyperbolic, or R▸Pr(function.

STAT —
- Pressing [STATVAR] with no defined data points.
- When not in STAT mode, pressing [DATA], [STATVAR], or [2nd] [EXIT STAT].

SYNTAX — The command contains a syntax error: entering more than 23 pending operations or 8 pending values; or having misplaced functions, arguments, parentheses, or commas.

Battery Replacement

1. Using a small Phillips screwdriver, remove screws from back case.
2. Remove protective cover. Starting from the bottom, carefully separate front from back. Caution: Be careful not to damage any internal parts.
3. Using a small Phillips screwdriver (if necessary), remove old battery; replace with new one.
   Caution: Avoid contact with other TI-30X II components while changing the battery.
4. If necessary, press [ON] and [CLEAR] at the same time to reset the TI-30X II (clears memory and all settings).
   Caution: Dispose of old batteries properly. Do not incinerate batteries or leave where a child can find them.

In Case of Difficulty

Review instructions to be certain calculations were performed properly.

Press [ON] and [CLEAR] at the same time. This clears all memory and settings.

Check the battery to ensure that it is fresh and properly installed.

Change the battery when:
- [ON] does not turn the unit on, or
- The screen goes blank, or
- You get unexpected results.

To continue using the **TI-30X IIS (Battery/Solar)*** until you can change the battery:
1. Expose the solar panel to brighter light.
2. Press [ON] and [CLEAR] at the same time to reset the calculator. This clears all settings and memory.

*** Operates in well-lit areas using solar cell. Operates in other light settings using battery.

TI Product Service and Warranty Information

For General Information
Home Page: education.ti.com
KnowledgeBase and
E-mail Inquires   education.ti.com/support
Phone: (800) TI-CARES;
                     (800) 842- 2737
                     For U.S., Canada, Mexico,
                     Puerto Rico, and Virgin Islands
                     only
International   education.ti.com/support
Information: (Click the International
                     Information link.)

For Technical Support
KnowledgeBase and
Support by E-mail: education.ti.com/support
Phone (not toll-free) (972) 917-8324

For Product (hardware) Service

Customers in the U.S., Canada, Mexico, Puerto Rico and Virgin Islands: Always contact TI Customer Support before returning a product for service.

All other customers: Refer to the leaflet enclosed with this product (hardware) or contact your local TI retailer/distributor.

Warranty Information

Column 1

	Keys	Display	Result
▲ ▼	1 [+] 1 [ENTER]	1+1	2. DEG
	2 [+] 2 [ENTER]	2+2	4. DEG
	3 [+] 3 [ENTER]	3+3	6. DEG
	4 [+] 4 [ENTER]	4+4	8. DEG
	⊝ ⊝ ⊝	2+2	DEG
◄ ►	[2nd] [►] [+] 2 [ENTER]	2+2+2	6. DEG

[2nd] [ANS]

	Keys	Display	Result
ANS	3 [×] 3 [ENTER]	3*3	9. DEG
	[×] 3 [ENTER]	Ans*3	27. DEG
	3 [2nd] [x√] [2nd] [ANS] [ENTER]	3x√Ans	3. DEG

[+] [−] [×] [÷] [(] [)] [ENTER]

	Keys	Display	Result
+ × ÷	60 [+] 5 [×] 12 [ENTER]	60+5*12	120. DEG
(−)	1 [+] [−] 8 [+] 12 [ENTER]	1+-8+12	5. DEG
( )	[2nd] [√] 4 [)] [ENTER]	√(4)	2. DEG
	4 [×] [(] 2 [+] 3 [)] [ENTER]	4*(2+3)	20. DEG
	4 [(] 2 [+] 3 [)] [ENTER]	4(2+3)	20. DEG

[2nd] [%]

	Keys	Display	Result
%	5 [2nd] [%] [×] 250 [ENTER]	5%*250	12.5 DEG

[Ab/c] [2nd] [Ab/c↔d/e] [2nd] [F↔D]

$-6\,4/6 + 2 = -4\,2/3$

	Keys	Display	Result
Ab/c	[(−)] 6 [Ab/c] 4 [Ab/c] 6 [+] 2 [ENTER]	-6⌐4⌐6+2	-4⌐2/3 DEG

$1/2 \times \pi = 1.570796327$

	Keys	Display	Result
Ab/c	1 [Ab/c] 2 [×] [π] [ENTER]	1⌐2*π	1.570796327 DEG

$9/2 \rightarrow 4\,1/2$

	Keys	Display	Result
Ab/c↔d/e	9 [Ab/c] 2 [2nd] [Ab/c↔d/e]	9⌐2►Ab/c↔d/e	4⌐1/2 DEG

$4\,1/2 \rightarrow .5$

	Keys	Display	Result
F↔D	4 [Ab/c] 1 [Ab/c] 2 [2nd] [F↔D] [ENTER]	4⌐1⌐2►F↔D	4.5 DEG

[x⁻¹] [x²] [2nd] [√] [^] [2nd] [x√]

	Keys	Display	Result
x^{-1}	2 [×] [(] 1 [Ab/c] 2 [)] [x⁻¹] [ENTER]	2*(1⌐2)⁻¹	4. DEG
x^2	2 [x²] [+] 2 [ENTER]	2²+2	6. DEG
√	[2nd] [√] 25 [)] [ENTER]	√(25)	5. DEG
^	5 [^] 3 [ENTER]	5^3	125. DEG
x√	3 [2nd] [x√] 8 [ENTER]	3 x√ 8	2. DEG

Column 2

LOG | LN | 2nd [10ˣ] | 2nd [eˣ]

	Keys	Display	Result
LOG	[LOG] 1 [)] [ENTER]	log(1)	0. DEG
LN	[LN] 15 [)] [×] 2 [ENTER]	ln(15)*2	5.416100402 DEG
10^x	[2nd] [10ˣ] 2 [)] [−] 10 [x²] [ENTER]	10^(2)−10²	0. DEG
e^x	[2nd] [eˣ] .5 [)] [ENTER]	e^(.5)	1.648721271 DEG

$e = 2.718281828459$

[π]

	Keys	Display	Result
π	2 [×] [π] [ENTER]	2*π	6.283185307 DEG

[DRG] [°′″]

	Keys	Display	Result
DRG	[CLEAR]		DEG
	[DRG] [►]	DEG RAD GRD	DEG
	[ENTER]		RAD
°′″	[SIN] 30 [°′″]	° ′ ″ r g→	RAD
	[ENTER] [)] [ENTER]	sin(30°)	0.5 RAD
DRG	[CLEAR] [DRG] [◄]	DEG RAD GRD	r g→
°′″	[ENTER] 2 [π] [°′″] [◄] [◄] [◄] [►]	° ′ ″ r g→	DEG
	[ENTER] [ENTER]	2π^r	360 DEG
°′″	1.5 [°′″] [◄]	←►DMS	DEG
	[ENTER] [ENTER]	1.5 ►DMS	1°30′0″ DEG

[SIN] [COS] [TAN] | [2nd] [SIN⁻¹] [2nd] [COS⁻¹] [2nd] [TAN⁻¹]

	Keys	Display	Result
TAN	[TAN] 45 [)] [ENTER]	tan(45)	1. DEG
TAN⁻¹	[2nd] [TAN⁻¹] 1 [)] [ENTER]	tan⁻¹(1)	45 DEG
COS	5 [×] [COS] 75 [)] [ENTER]	5*cos(75)	1.294095226 DEG

[2nd] [HYP]

	Keys	Display	Result
DRG	[DRG] [◄]	DEG RAD GRD	DEG
HYP	[ENTER] [2nd] [HYP] [SIN] 5 [)] [+] 2 [ENTER]	sinh(5)+2	76.20321058 DEG
	[⊝] [2nd] [HYP] [2nd] [SIN⁻¹] [ENTER]	sinh⁻¹(5)+2	4.312438341 DEG

[2nd] [R→P]

	Keys	Display	Result
R↔P	[2nd] [R→P]	R►Pr R►Pθ →	DEG
	5 [2nd] [,] 30 [)] [ENTER]	R►Pr (5,30)	30.41381265 DEG
	[⊝] [2nd] [R→P] [►]	R►Pr R►Pθ →	DEG
	[ENTER] [ENTER]	R►Pθ (5,30)	80.53767779 DEG

Column 3

[2nd] [K]

	Keys	Display	Result
K	[2nd] [K]	K=	DEG
	[×] 2 [+] 3 [ENTER]	K=*2+3	DEG K
	4 [ENTER]	4*2+3	11. DEG K
	6 [ENTER]	6*2+3	15. DEG K
	[2nd] [K] [2nd] [K] [CLEAR] [x²] [ENTER]	K=²	DEG K
	5 [ENTER]	5²	25. DEG K
	20 [ENTER]	20²	400. DEG K
	[2nd] [K] 1 [+] 1 [ENTER]	1+1	2. DEG

[2nd] [CLRVAR] [STO►] [2nd] [RCL] [MEMVAR]

	Keys	Display	Result
CLRVAR	[2nd] [CLRVAR]		DEG
STO►	15 [STO►]	→A B C D E→	DEG
	[ENTER]	15→A	15. DEG
	[π]	π	DEG
RCL	[2nd] [RCL]	A B C D E	15. DEG
	[ENTER] [x²] [ENTER]	π15²	706.8583471 DEG
	[STO►] [►]	→A B C D E→	DEG
	[ENTER]	Ans→B	706.8583471 DEG
MEM VAR	[MEMVAR] [►]	A B C D E	706.8583471 DEG
	[ENTER] [÷] 4 [ENTER]	B/4	176.7145868 DEG

[2nd] [FIX] [2nd] [SCI/ENG] [2nd] [EE]

	Keys	Display	Result
FIX	[π] [ENTER]	π	3.141592654 DEG
	[2nd] [FIX]	F0123456789	DEG
	2	π	3.14 FIX DEG
	[2nd] [FIX] [.]	π	3.141592654 DEG
SCI/ENG	12345	12345	DEG
	[2nd] [SCI/ENG] [►]	FLO SCI ENG	DEG
	[ENTER] [ENTER]	12345	1.2345 x10 04 SCI DEG
	[2nd] [SCI/ENG] [►]	FLO SCI ENG	DEG
	[ENTER]	12345	12.345 x10 03 ENG DEG
EE	1.234 [2nd] [EE]	1.234 E-65	DEG
	[⊝] 65 [ENTER]	12.34 x10-66	ENG DEG

Column 4

[2nd] [STAT] [DATA] [STATVAR] [2nd] [EXIT STAT]

1-VAR: {45, 55, 55, 55}

	Keys	Display	Result
STAT	[2nd] [STAT]	1-VAR 2-VAR→	
DATA	[ENTER] [DATA] 45	X_1=45	STAT DEG
	[⊝]	FRQ=1	STAT DEG
	[⊝] 55 [⊝]	X_2=55	STAT DEG
	[⊝] 3 [ENTER]	FRQ=3	3. STAT DEG
STAT VAR	[STATVAR] [►] [►] [►]	n x̄ Sx σx	4.330127019 STAT DEG
	[×] 2 [ENTER]	σx*2	8.660254038 STAT DEG
STAT	[2nd] [STAT] [◄]	← CLRDATA	STAT DEG
	[ENTER]		STAT DEG

2-VAR: (45,30); (55,25); x'(45)

	Keys	Display	Result
STAT	[2nd] [STAT] [►]	1-VAR 2-VAR→	DEG
DATA	[ENTER] [DATA] 45	X_1=45	STAT DEG
	[⊝] 30	Y_1=30	STAT DEG
	[⊝] 55	X_2=55	STAT DEG
	[⊝] 25	Y_2=25	STAT DEG
STAT VAR	[⊝] [STATVAR] [◄] [◄] [►]	← x' y'	STAT DEG
	45 [)] [ENTER]	x'(45)	15. STAT DEG
EXIT STAT	[2nd] [EXIT STAT]	EXIT ST: Y N	STAT DEG
	[ENTER]		DEG

[PRB]

	Keys	Display	Result
nPr	8	8	DEG
	[PRB]	nPr nCr ! →	DEG
	3 [ENTER]	8 nPr 3	336. DEG
nCr	52	52	DEG
	[PRB] [►]	nPr nCr ! →	DEG
	5 [ENTER]	52 nCr 5	2598960. DEG
!	4	4	DEG
	[PRB] [►] [►]	nPr nCr ! →	DEG
	[ENTER] [ENTER]	4!	24. DEG
STO►rand	5 [STO►]	← rand	660000. DEG
	[ENTER]	5→rand	5. DEG
RAND	[PRB] [◄] [◄]	← RAND RANDI	DEG
	[ENTER] [ENTER]	RAND	.000093165 DEG
RANDI	[PRB] [◄]	← RAND RANDI	DEG
	3 [2nd] [,] 5 [)] [ENTER]	RANDI(3,5)	4. DEG

TI-30X IIS and TI-30X IIB

2-Line Display: The first line displays an entry of up to 88 digits. Scroll the line with $⟨$ and $⟩$. The second line displays the result after you press $\boxed{\text{ENTER}}$.

Previous Entries: After an expression is evaluated, press $⊘$ and $⊙$ to scroll previous entries.

Menus: Some keys access menus. Press $⟨$ and $⟩$ to underline a menu item; press $\boxed{\text{ENTER}}$ to select it.

▦	1 2 3 4 5 $\boxed{\text{2nd}}$ $\boxed{\text{FIX}}$		**F**0123456789
	2 $\boxed{\text{ENTER}}$	12345	12345.00
	$\boxed{\text{2nd}}$ $\boxed{\text{FIX}}$ $\boxed{\cdot}$	12345	12345.

Last Answer (Ans): Stores the last calculated result.

▦	2 $\boxed{+}$ 2 $\boxed{\text{ENTER}}$	2+2	4.
	$\boxed{\text{2nd}}$ $\boxed{\text{ANS}}$ $\boxed{x^2}$ $\boxed{\text{ENTER}}$	Ans^2	16.

Clearing and Editing:

$\boxed{\text{CLEAR}}$	Clears entry line or error message.
$\boxed{\text{DEL}}$	Deletes the character at the cursor.
$\boxed{\text{2nd}}$ $\boxed{\text{INS}}$	Inserts a character at the cursor.
$\boxed{\text{2nd}}$ $\boxed{\text{RESET}}$	Displays menu to reset the unit.
$\boxed{\text{ON}}$ & $\boxed{\text{CLEAR}}$	Resets unit without displaying a menu.
$\boxed{\text{2nd}}$ $\boxed{\text{STAT}}$ **CLRDATA**	Clears all data points without exiting **STAT** mode.
$\boxed{\text{2nd}}$ $\boxed{\text{EXIT STAT}}$ **Y**	Clears all data points and exits **STAT** mode.

Note: Resetting the unit clears all settings and memory.

Trigonometry

TAN 4 5) ENTER	tan(45)	1.

Memory

2 5 STO◆ ENTER	25→A	25.

Fractions

3 Ab⁄c 1 Ab⁄c 2 + 3 Ab⁄c 4 ENTER	3⌐1⌐2 + 3⌐4	4⌐1/4
2nd [Ab⁄c ↔ d⁄e] ENTER	Ans ▶ Ab⁄c ↔ d/e	17/4
2nd [F↔D] ENTER	Ans ▶ F◀▶D	4.25

Rectangular–Polar Conversions

2nd [R↔P] 5 2nd [,] 3) ENTER	R▶Pr(5,3)	5.830951895

Probability (Combinations)

5 2 PRB ▷ 5 ENTER	52 nCr 5	2598960.

Statistics

2nd [STAT]	1-VAR 2-VAR	
ENTER DATA 4 5 ENTER	x₁=45	45.
⊝ ENTER	FRQ=1	1.
⊝ 5 5 ENTER	X₂=55	55.
⊝ 3 ENTER	FRQ=3	3.
STATVAR ▷ ▷ ▷	n x̄ Sx σx	4.330127019
ENTER × 2 ENTER	σx * 2	8.660254038
2nd [EXIT STAT]	EXIT STAT: Y N	
ENTER		

Notation

1 2 3 4 2nd [SCI/ENG] ▷ ENTER ENTER	1234	1.234 x10 03