Calculator Tutorials Compiled by @mathequalslove from Texas Instruments TI-30XS MultiView™ Guide for Teachers (English) - PDF

TI-30XS Calculator

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Error Messages

Message	Meaning
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 $\sqrt[x]{}$ — x = 0 or y < 0 and x is not an odd integer. For y^x — y and x = 0; y < 0 and x is not an integer. For $\sqrt{}$ — 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 available space (80 digits for statistics entries or 47 for constant entries); for example, combining an entry with a constant that exceeds the limit.
FRQ DOMAIN	**FRQ** value (in 1-variable statistics) < 0 or >99.
OVERFLOW	|θ| ≥ 1x10^n, where θ is an angle in a trig, hyperbolic, or **R▶Pr** function.
STAT	Attempting to calculate 1-var or 2-var stats with no defined data points, or attempting to calculate 2-var stats when the data lists are not of equal length.
DIM MISMATCH	Attempting to create a formula when the lists are not of equal length.
FORMULA	The formula does not contain a list name (L1, L2, or L3), or the formula for a list contains its own name; for example, a formula for L1 contains L1.
SYNTAX	The command contains a syntax error—entering more than 23 pending operations, 8 pending values, or having misplaced functions, arguments, conversions, variables, parentheses, or commas. If using $\frac{a}{b}$, try using ÷.
INVALID FUNCTION	You entered an invalid function in the function table.
LOW BATTERY	Replace the battery. **Note**: This message displays briefly and then disappears. Pressing **clear** does not clear this message.

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Powers, Roots, & Reciprocals

Keys

1. [x^2] squares the value.
2. [2nd] [$\sqrt{}$] calculates the square root.
3. [2nd] [$x\sqrt{}$] calculates the specified root (x) of the value.
4. [x^{-1}] calculates the reciprocal.
5. [^] raises a value to a specified power.

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Basic Operations

Keys

1. [on] turns on the calculator.
2. [2nd] turns on the **2nd** indicator and accesses the function shown above the next key you press.
3. [2nd] [off] turns off the calculator and clears the display.
4. [enter] completes the operation or executes the command.
5. [2nd] [ans] recalls the most recently calculated result and displays it as **Ans**.
6. [◆▶] toggles the answer between fraction and decimal, exact square root and decimal, and exact pi and decimal formats.
7. ◀ and ▶ move the cursor left and right to scroll entries on the Home screen and to navigate in menus.
   [2nd] ◀ or [2nd] ▶ scrolls to the beginning or end of a current entry.
   ▲ and ▼ move the cursor up and down through menu items, previous entries on the Home screen, and entries in Data editor and Function table.
   [2nd] ▲ moves the cursor to the top entry of the active column in Data editor, or to the previous entry on the Home screen. Press [2nd] ▲ again to move the cursor to the oldest entry on the Home screen.
   In fractions, press [2nd] ▲ to paste a previous entry to the denominator. (See Chapter 6, Fractions, for more information.)
   [2nd] ▼ moves the cursor to the first blank row of the active column in Data editor, or below the last entry on the Home screen.
8. [mode] lets you set the angle, numeric, decimal, and display modes. Press ▼▲◀▶ to choose a mode, and [enter] to select it. Press [clear] or [2nd][quit] to exit the mode menu.

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Clearing and Correcting

Keys

1. clear clears characters and error messages. Press clear once to clear an uncompleted entry; press it again to clear the display. You can scroll up and use clear to clear entries in history. clear backs up one screen in applications.
2. 2nd [insert] lets you insert a character at the cursor.
3. delete deletes the character at the cursor. Then, each time you press delete, it deletes 1 character to the left of the cursor.

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Basic Math

Keys

1. [+] adds.
2. [−] subtracts.
3. [×] multiplies.
4. [÷] divides.
5. [enter] completes the operation or executes the command.
6. [(−)] lets you enter a negative number.
7. [2nd] [%] appends the % sign to a number.

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Fractions

Keys

1. [2nd][$U\frac{n}{d}$] lets you enter mixed numbers and fractions. The unit must be an integer. The numerator and denominator can contain decimals.

   To enter a mixed number, enter an integer for the unit, and then press [2nd][$U\frac{n}{d}$] to enter a numerator.

   In MathPrint™ mode, pressing [2nd][$U\frac{n}{d}$] before entering an integer displays a fraction template, and allows only one digit to be entered for the unit.

2. [$\frac{n}{d}$] lets you enter a simple fraction. Pressing [$\frac{n}{d}$] before or after a number can result in differing behavior. In MathPrint™ mode, entering a number before pressing [$\frac{n}{d}$] usually makes that number the numerator.

   [$\frac{n}{d}$] in MathPrint mode can also be used for more complex fractional or formula computations that include operators and other functions by pressing [$\frac{n}{d}$] before you enter the numerator.

   In MathPrint™ mode, press ▼ between the entry of the numerator and the denominator. In Classic mode, press [$\frac{n}{d}$] between the entry of the numerator and the denominator.

3. [2nd] [$\frac{n}{d}$◄►$U\frac{n}{d}$] converts a simple fraction to a mixed number or a mixed number to a simple fraction.

4. [2nd] [f◄►d] converts a fraction to its decimal equivalent or changes a decimal to its fractional equivalent, if possible.

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Memory and Stored Variables

Keys

1. [sto→] lets you store values to variables. Press [sto→] to store a variable, and press [x^{yzt}_{abc}] to select the variable to store. Press [enter] to store the value in the selected variable. If this variable already has a value, that value is replaced by the new one.
2. [x^{yzt}_{abc}] accesses variables. Press this key multiple times to choose **x**, **y**, **z**, **t**, **a**, **b**, or **c**. You can also use [x^{yzt}_{abc}] to recall the stored values for these variables.
3. [2nd] [clear var] clears all variables.
4. [2nd] [recall] displays a menu of the variables **x**, **y**, **z**, **t**, **a**, **b**, and **c**, and lets you view their stored values before pasting to the display.

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