TI-30 for students: an economical and powerful calculator from Texas Instruments

- **ACCURACY AND Rounding**
  While the display has a capacity of 8 digits, the internal calculating capacity of the TI-30 is 11 digits. The result within the calculator is automatically rounded to 8 digits for display purposes only (15 digits for scientific notation). The 5/4 rounding system adds one to the least significant displayed digit if the next non-displayed number is five or more (i.e. round up). When the digit is less than five, the calculator rounds down. As the calculator is capable of working internally with 11 digits, numbers with 9 to 11 digits may be entered by summing two numbers (12386912 – 87630 + 3881927.21). The calculator simply completes the operation and uses the 11 digit result for further calculations.

- **MINUS SIGN**
  Any negative number displays a minus sign immediately to the left of the number, the key negative numbers are ordinarily written.

- **ERROR INDICATION**
  The display shows the word "Error" when the limits of the calculator are violated or when an improper mathematical operation is requested. When this occurs, further entries from the keyboard are not accepted until the machine is cleared.

- **ECONOMICAL AUTOMATIC TURN-OFF FEATURE**
  The TI-30 display will automatically turn off after a period of time if no new keyboard entries are made (typically 25 to 50 seconds). A travelling decimal remains in the display to indicate that the calculator still retains the current calculation.

**TEXAS INSTRUMENTS' ALGEBRAIC OPERATING SYSTEM (AOS)**

- **WHAT IS AOS?**
  This is a unique system found in TI's new advanced calculators enabling the calculator to know numbers and functions as they are entered left to right . . . and automatically executes the problem according to the rules of algebra — just as it is taught in schools. In other words, you key in your problem as it is written.

  Example: 2 + 3 x (4 + 5 ÷ 7) is entered as it is written.

- **HOW CAN ONE MEASURE THE POWER OF AOS?**

  ![Figure 1](image)

- **WHY IS AOS SO POWERFUL?**

  ![Figure 2](image)

- **EXAMPLES:**

  - Sum of products and product of sums
    \[2 \times 3 + 4 \times 5 = 26\]
    \[(2 + 3) \times (4 + 5) = 45\]

  - Triangle of Pythagoras
    \[a = \sqrt{3^2 + 4^2} = 5\]

  - Evaluate \[a^2 + b^2\]
    \[a = 2\]
    \[b = 5\]

  - **POWER SOURCE**
    Battery saver. To increase the battery life, 1) the displayed number is turned off but still remembered (for 30 seconds), 2) the calculator is switched off after 10 minutes.

  Rechargeable pack RI2 (option). The TI-30 can be fitted with a rechargeable battery. Recharging is very quick (10 hours) and safe with the charger supplied.

  ![AC990XH](image)

- **SPECIFICATIONS**

  Display: 7-digit, light-emitting diodes. Decimal, negative sign, angular mode, error indication "Error".

  Electronics: Texas Instruments manufactured MOS/LSI integrated circuit.

  Calculations: Add, subtract, multiply, divide, percent, parentheses, constant, roots, powers, reciprocals, logarithms (natural and common), trigonometric functions with degree, grad or radian measurements, and t. Memory for storage and recall of numbers with sum to memory and memory/display exchange.

  Power source: One (9 Volt) alkaline or zinc-chloride battery (not included with calculator).

  Optional accessories: Rechargeable kit (RI2-2) to convert calculator from disposable battery power source to a rechargeable AC adapter.

  Size: 13.0 x 7.2 x 3.4cm (5.1 x 2.8 x 1.33 inch)

  Weight: Approximately 130 grams (4.6 ounces) without battery.

  Included: Calculator, owner's manual.

- **LIMITED WARRANTY**
  The Texas Instruments TI-30 calculator is warranted to the original purchaser for a period of one year from the original purchase date. Warranty covers defective materials and workmanship on return to a TI Service Centre together with proof-of-purchase date.
  Due to the difficulty of photographing calculator readouts, display represented in this brochure are simulated.
  Texas Instruments reserves the right to make changes in materials and specifications without notice.
KEY FEATURES

- Algebraic operating system
- All slide rule functions
- Battery saver
- Electronic angle mode selector
- Exponential shift
- Electronic switch
- Optional rechargeable pack

Special functions. Calculate the reciprocal, the square or the square root of a displayed number.

Trigonometric functions. Sine, cosine, tangent and inverses through INV key.

Programmable constant. Memorizes a constant factor in six operating modes (+, -, x, ÷, y^x, √y).

π (Pi). Permanently programmed in the TI-30 to 11 digits (3.1415926536) and displayed rounded to 0 (3.1415927).

Exponential shift. Shift the exponent up or down in scientific notation, providing direct reading in the desired units (kilos, mls ...).

Full flexible memory. 4 keys to store data. Recall them, add to the memory contents, exchange memory and display.

TI-30

Electronic switch. The ON/C key switches the calculator on, the OFF key switches it off. The ON/C key acts as a clear key once the calculator is on.

Electronic angle mode selector. Selects the unit for angular measurement. The unit selected is indicated in the left corner of the display.

Logarithmic functions. Calculates the common and natural logarithm. Calculates 10^x and e^x through the INV key.

Powers and roots. To raise any positive number to any power. Calculates roots through the INV key.

Change sign. Allows entry of negative numbers and for changes the sign of the displayed result.

Percent. For easy tax, discount and percentage calculations.

Parentheses. To put AOS at your fingertips.