TI-30Xa Calculator Tips

Calculator Memory

- To use the memory function, hit the STO key to store a number in either memory 1, 2, or 3.
  - To store the product of 15π, hit $15 \times \pi =$ STO 1; you will now have 47.1238898 ... stored in memory 1 (M1)
  - To recall the value that is being stored in memory 1 (M1), use the RCL button.
    - RCL 1
    - You do not need to hit the = key to recall a value
  - To clear out a memory, type STO followed by either 1, 2, or 3
    - To clear out the value being stored in memory 1 (M1), hit STO 1
    - When a value is being store in memory 1, you will see M1 in the upper left hand corner of the screen
    - When a memory is cleared, the M1 will disappear

Decimals, fractions, and mixed numbers

- To enter a fraction or a mixed number into the calculator, use the $a\,{}^{b}/_{c}$ key near the bottom left-hand corner (just above the ← key).
  - $\frac{1}{2}$ is entered 1 $a\,{}^{b}/_{c}$ 2
  - $3\frac{1}{2}$ is entered 3 $a\,{}^{b}/_{c}$ 1 $a\,{}^{b}/_{c}$ 2
- To change from a mixed number to an improper fraction, use the 2nd function on the $a\,{}^{b}/_{c}$ key $\left({}^{d}/_{c}\right)$.
  - To convert $3\frac{1}{2}$ to $\frac{7}{2}$, hit 2nd $a\,{}^{b}/_{c}$
  - $\frac{3}{2}+\frac{3}{4}=2\frac{1}{4}$; to convert this to an improper fraction, hit 2nd $a\,{}^{b}/_{c}$
  - You do not need to use the = key
- To change from a decimal to a mixed number or a fraction, use the 2nd function on the ← key in the bottom left-hand corner.
  - $14 \div 49 = 0.2857$ ...; to convert this to a fraction, hit 2nd ←
  - You do not need to use the = key
  - This will not work every time, because not every decimal can be written as a fraction

Exponents and Powers

- To raise any base to any power, use the y^x key located directly above the division key
  - 3^5 is entered 3 y^x 5 =
  - This will not work every time, because not every base can be raised to any power
    - -2 cannot be taken to the power of $\frac{1}{2}$ because the square root of -2 does not exist with real numbers
    - 0 cannot be taken to a negative power because division by zero is not possible
- To raise e to a power, use the 2nd function of the LN key (e^x) directly to the left of the OFF button.
  - e^3 is entered 3 2nd LN
  - You do not need to use the = when taking e to a power

- To raise 10 to a power, use the 2nd function of the LOG key (10^x) directly to the left of the LN key.
    - 10^4 is entered 4 2nd LOG
    - You do not need to use the = when taking 10 to a power
- To raise any base to a power, use the y^x key directly above the division (÷) key.
    - 5^5 is entered 5 y^x 5 =
    - $(-3)^4$ is entered -3 y^x 4 =

Logarithms

- To approximate a common logarithm (base 10), use the LOG key to the left of the OFF button. Keep in mind, you should only approximate when the directions say to do so; if the directions do not ask you to approximate, you should ALWAYS enter an exact answer.
    - log 3 is entered 3 LOG
    - You do not need to use the = when finding the logarithm of a value
    - This will not work every time, because the domains of logarithms are restricted
        - log a will not work if $a \leq 0$ because 10 to a power is **ALWAYS** positive
- To approximate a natural logarithm (base e), use the LN key directly to the left of the OFF button. Again, you should only approximate when the directions say to do so; if the directions do not ask you to approximate, you should ALWAYS enter an exact answer.
    - ln 3 is entered 3 LN
    - You do not need to use the = when finding the logarithm of a value
    - This will not work every time, because the domains of logarithms are restricted
        - ln a will not work if $a \leq 0$ because e to a power is **ALWAYS** positive