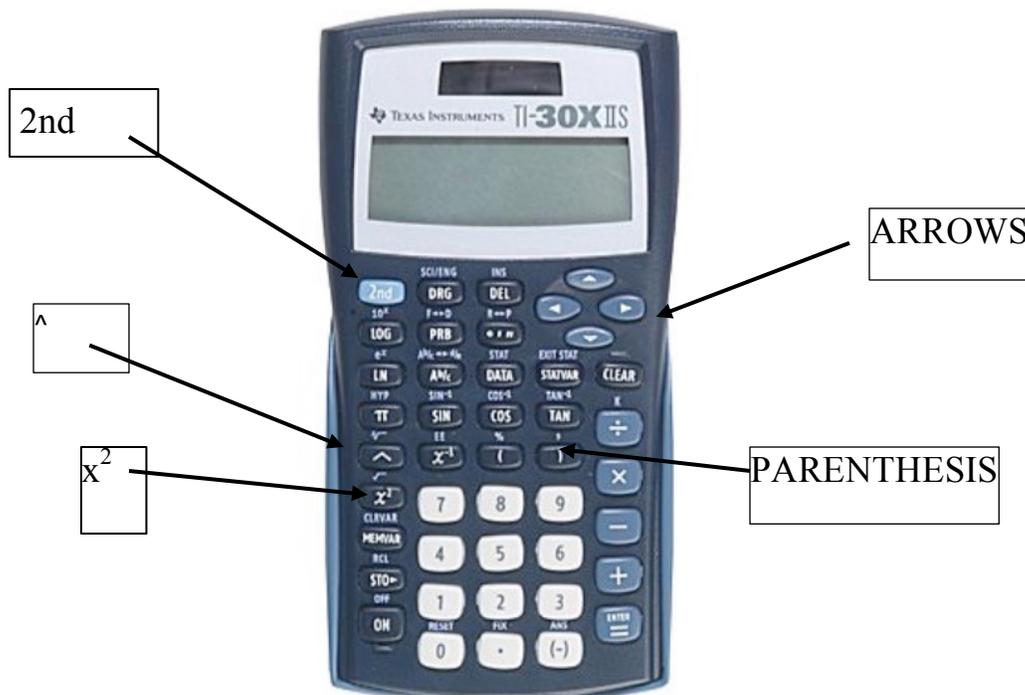


The TI-30X IIS Calculator and Exponents



Squaring a number can be done easily using a x^2 key. Cubing a number or raising it to any power can be achieved by using \wedge key followed by number 3.

- Squaring: input the number and then x^2 , 4^2 is found by inputting: $4 x^2 =$

You screen will look like: 4^2 16

- Cubing or raising a number to the third power: input the number and then $\wedge 3$, 4^3 is found by inputting: $4 \wedge 3 =$

You screen will look like: 4^3 64

- Raising a number to a power greater than 3: input the number and then \wedge (the power desired) =, $(-3)^4$ is found by inputting: $(-3) \wedge 4 =$

You screen will look like: $(-3)^4$ 81

Note: if you did not put the -3 in parentheses, the orders of operation raises the 3 to the fourth power and then makes it negative, hence the answer will be -81.

Be careful that you always put negative numbers in parentheses when raising them to powers.

➤ You can also take values to fractional exponents: $8^{2/3}$ can be found by inputting: $8 \left[\wedge \right] \left[\left(\frac{2}{3} \right) \right] =$

You screen will look like: $8^{(2/3)}$

4

Taking a root can be done easily using $\sqrt{\quad}$ option, which is achieved by pressing $\left[2\text{nd} \right] \left[x^2 \right]$.

Any other root (n-root), can be calculated by pressing (the root desired) $\left[2\text{nd} \right] \left[\wedge \right]$.

➤ **Square root:** $\sqrt{\quad}$ the number =, $\sqrt{36}$ is found by inputting: $\left[2\text{nd} \right] \left[x^2 \right] 36 =$

You screen will look like: $\sqrt{36}$

6

➤ **Cube root:** $\sqrt[3]{\quad}$ the number =, $\sqrt[3]{64}$ is found by inputting: $3 \left[2\text{nd} \right] \left[\wedge \right] 64 =$

You screen will look like: $3 \sqrt[3]{64}$

4

➤ **Taking a root higher than a cube root:** (the root desired) $\left[2\text{nd} \right] \left[\wedge \right]$ (the value) =, $\sqrt[4]{1296}$

is found by inputting: $4 \left[2\text{nd} \right] \left[\wedge \right] 1296 =$

You screen will look like: $4 \sqrt[4]{1296}$

6

Since the root symbol works like a grouping symbol, there is no need to use parentheses for negative values.

$\sqrt[5]{-32}$ is found by inputting: $5 \left[2\text{nd} \right] \left[\wedge \right] \left[(-) \right] 32 =$

You screen will look like: $5 \sqrt[5]{-32}$

-2

Remember that you can't take an even root of a negative number.

If you do you will get an error message.