The Casio FX 115ES Calculator and Exponents

[](http://www.google.com/url?sa=i&rct=j&q=&esrc=s&source=images&cd=&cad=rja&uact=8&ved=0ahUKEwixhYbL96TLAhVE2WMKHX06BVMQjRwIBw&url=http://www.amazon.com/Casio-fx-115ES-Engineering-Scientific-Calculator/dp/B007W7SGLO&psig=AFQjCNHgAKZOI_oGX9Yhi3flD5pErXKncA&ust=1457108830052272)

SHIFT

SQUARING AND CUBING

ARROWS

HIGHER POWERS

Raising a number to a power can be done easily, however the buttons used differ depending on the power:

* Squaring: input the number and then x2 =, 42 is found by inputting: 4 x2 =

**You screen will look like: 42 16**

* Cubing or raising a number to the third power: input the number and then SHIFT x2 =, 43 is found by inputting: 4 SHIFT x2 =

You screen will look like: 43 64

* Raising a number to a power greater than 3: input the number and then (the power desired) =, (-3)4 is found by inputting: ((-)3) 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: 82/3 can be found by inputting:

8   2 down arrow 3 =

You screen will look like: 4

The Casio FX 115ES Calculator and Roots

[](http://www.google.com/url?sa=i&rct=j&q=&esrc=s&source=images&cd=&cad=rja&uact=8&ved=0ahUKEwixhYbL96TLAhVE2WMKHX06BVMQjRwIBw&url=http://www.amazon.com/Casio-fx-115ES-Engineering-Scientific-Calculator/dp/B007W7SGLO&psig=AFQjCNHgAKZOI_oGX9Yhi3flD5pErXKncA&ust=1457108830052272)

SHIFT

HIGHER ROOTS

SQUARE AND CUBE ROOTS

ARROWS

Taking a root can be done easily, however the buttons used differ depending on the root:

* **Square root**:  the number=, is found by inputting: 36=

You screen will look like: 6

* **Cube root**: SHIFT the number=, is found by inputting: SHIFT 64=

You screen will look like: 4

* **Taking a root higher than a cube root**: SHIFT (the power desired) right arrow (the value) =,

is found by inputting: SHIFT 4 right arrow 1296 =

You screen will look like: 6

Since the root symbol works like a grouping symbol, there is no need to use parentheses for negative values. is found by inputting: : SHIFT 5 right arrow -32 =

You screen will look like: -2

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

If you do you will get an error message.