Scientific Notation

Non-exponential Quantity --> Scientific Notation:

- Multiply the number by 10^0 ($10^0 = 1$)

- Move the decimal point to give a number between 1 and 10

- Every time we shift the decimal point to the <u>left</u> by one place we <u>increase</u> the value of the exponent by one

- Every time we shift the decimal point to the <u>right</u> by one place we <u>reduce</u> the value of the exponent by one

Scientific Notation --> Non-exponential Quantity:

- Move the decimal point the same number of places as the value of the exponent and eliminate the exponential part of the number.

- If the exponent is <u>positive</u>, we move the decimal to the <u>right</u> to the same number of places as the value of the exponent.
  The result should be a number *greater than* 1 (***unless*** the original number is negative!)

- If the exponent is <u>negative</u>, we move the decimal to the <u>left</u> to the same number of places as the value of the exponent. The result should be a number *less than* 1 (***unless*** the original number is negative!)