STANDARD AND EXPANDED FORMS OF NUMBERS

Standard forms of numbers are used to express very large and very small number, e.g. 327,800,000 or 0.000096. The standard form is written as $a \times 10^n$ where a is the number between 1 and 10, and n is a positive (+ve) or negative (–ve) integer.

Example: The number 327800000 quoted above is the same as $3.278 \times 100000000 = 3.278 \times 10^8$.

This is its standard form, i.e. in the format:

$$\boldsymbol{a \times 10^n} --Standard\ Form$$

Expanded Form

In this form, the place values are emphasized like in the abacus, e.g.

$23 = (2 \times 10) + 3$

$469 = (4 \times 100) + (6 \times 10) + 9$

$$= \mathbf{4 \times 10^2 + 6 \times 10^1 + 9 \times 10^0} -- Expanded\ Form$$