

CUBES

The cube of a number is that number raised to the power 3 i.e., cube of $a = a^3$ (read cube of a) .

Clearly, $a^3 = a \times a \times a$

Example

$2^3 = 8$, $3^3 = 27$, etc.

PROPERTIES OF CUBE

i) Cube of an even number is even.

e.g $4^3 = 64$

ii) Cube of an odd number is odd

e.g $5^3 = 125$

iii) Cube of a positive number is positive.

e.g $3^3 = 27$

iv) Cube of a negative number is negative.

e.g $(-2)^3 = -8$

v) Cubes of the numbers ending in 0, 1, 4, 5, 6 and 9 end in 0, 1, 4, 5, 6 and 9 respectively .

$$(10)^3 = 1000$$

$$(11)^3 = 1331$$

$$(14)^3 = 2744$$

$$(16)^3 = 4096$$

$$(25)^3 = 15625$$

$$(29)^3 = 24389$$

PERFECT CUBE

A number is said to be a perfect cube, if it is the cube of some number.

e.g. 343 is a perfect cube as $343 = 7 \times 7 \times 7 = 7^3$

CUBE ROOT

The Cube root of a given number is that number which when raised to the power three gives the given number.

The symbol used for cube root is $\sqrt[3]{b}$.