

Pg-1

## VIII- Mathematics Assignment - Cubes and cube Roots

Basic Concepts: - A natural number 'a' is Called a perfect Cube if there Exists another natural number 'b' such that  $a = b \times b \times b = b$ 8 Can be re written on 2x2x2 or 2 27 " " 3 X 3 X 3 or 3 etc. In a simple language, if we multiply a number by itself three times, we get the cube of that number. eg if we multiply a by itself 3 times ie, 2x2x2, we get 2° or 8. Properties of Cubes of numbers: (a) Cubes of all odd numbers are odd.

Eg, Cube of 5 =  $5 \times 5 \times 5 \times 5 = 125 - 0 dd$ Cube of 7 =  $7 \times 7 \times 7 \times 7 = 343 - 0 dd$ 

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## Method of finding a perfect Cube

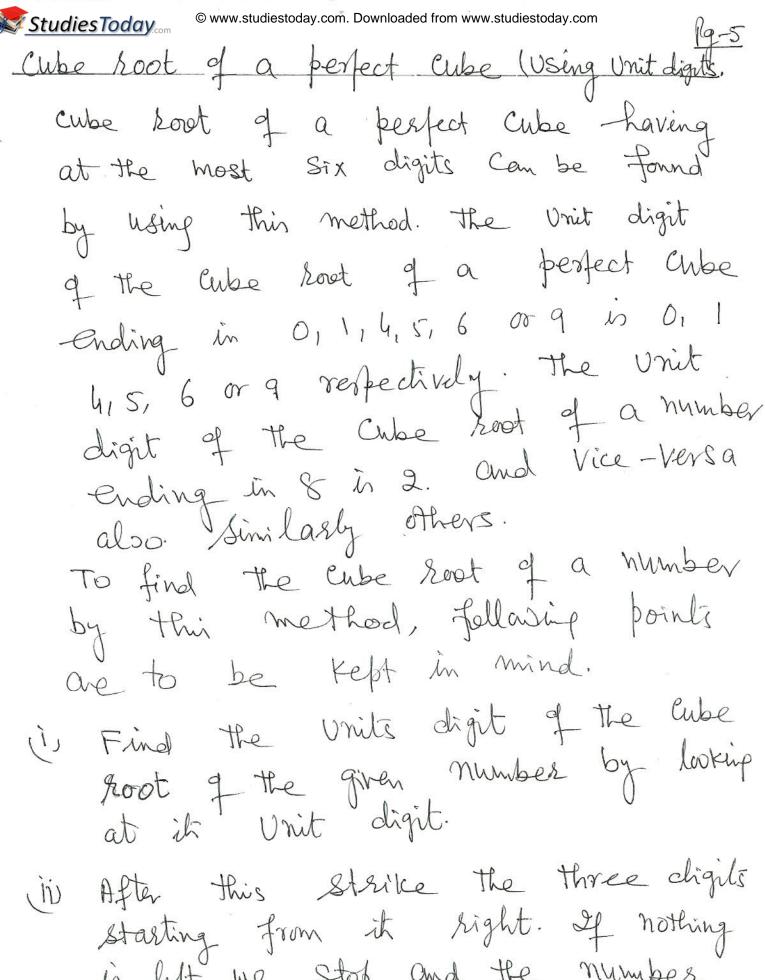
Following points must be Kept in mind to check whether the given number in a perfect cube or not.

- (a) Resolve the given number into prime factors.
- (b) Form the groups by taking three Similar factors.
- (c) If no factor is left Ungrouped then the given number is a perfect cube, otherwise not.

If we have to find the <u>Cube Root</u>
of a number then,
Refeat the above steps then the
required cube Root is obtained by

taking one number from each group and then multiply them to find the Cube root.

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is left we stop and the number obtained in step is in it cube root

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