

CLASS –VIII

Maths

Date:-24/04/2020

CHAPTER 4 - CUBES AND CUBE ROOTS

- Watch the online videos “Squares and Square roots -Lecture 1 & 2” from Optimum Online E-Learning Platform and try to comprehend the concepts of Cubes and cube roots. After that try to solve the questions given in your assignment.
- Lecture No. 1
- Lecture No. 2

1. Find the cubes of the following numbers:

- (i) 7
- (ii) 12
- (iii) 16
- (iv) 21
- (v) 40
- (vi) 55
- (vii) 100

2. Write the cubes of all natural numbers between 1 and 10 and verify the following statements:

- (i) Cubes of all odd natural numbers are odd.
- (ii) Cubes of all even natural numbers are even.

3. Observe the following pattern:

I. $1^3 = 1$

II. $1^3 + 2^3 = (1 + 2)^2$

III. $1^3 + 2^3 + 3^3 = (1 + 2 + 3)^2$

Write the next three rows and calculate the value of $1^3 + 2^3 + 3^3 + \dots + 9^3$ by the above pattern.

4. Write the cubes of 5 natural numbers which are multiples of 3 and verify the followings:

“The cube of a natural number which is a multiple of 3 is a multiple of 27”

5. Write the cubes of 5 natural numbers which are of the form $3n + 1$ (e.g. 4, 7, 10, ...) and verify the following: 'The cube of a natural number of the form $3n+1$ is a natural number of the same form i.e. when divided by 3 it leaves the remainder 1'
6. Evaluate:
- $(4/7)^3$
 - $(10/11)^3$
 - $(1/15)^3$
 - $(0.005)^3$
 - $(3.5)^3$
7. Which of the following numbers are perfect cubes? In case of perfect cube, find the number whose cube is the given number.
- 125
 - 243
 - 343
 - 256
 - 8000
8. Which of the following are the cubes of even numbers?
- 216
 - 729
 - 512
 - 3375
 - 1000

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