

Cube & cube roots

Choose the correct option (Question No. 1 – 4)

- Q.1 The cube root of -64 is
(a) 2 (b) -2 (c) -4 (d) 4
- Q.2 36 is multiplied by x to get a perfect cube. The value of x is
(a) 32 (b) 2 (c) 6 (d) 4
- Q.3 Which of the following is a square number and also a perfect cube?
(a) 144 (b) 125 (c) 16 (d) 64
- Q.4 The cube root of 1.331 is
(a) 1.1 (b) 0.011 (c) 0.11 (d) 1.01
- Q.5 Fill in the blanks
(a) The cube of an _____ natural number is odd.
(b) The cube of a _____ integer is negative.
(c) Cube of a natural number along with one zero ends with _____.
- Q.6 Find the cube of
(a) 0.8 (b) 4.3 (c) -5.1 (d) $-\frac{1}{8}$ (e) $-\frac{3}{2}$
- Q.7 Find by using Prime factorization whether the following are perfect cubes?
(a) 13284 (b) 91125 (c) 10648 (d) 17576 (e) 39304
- Q.8 Find the least number by which the following must be multiplied to make them perfect cubes.
(a) 1323 (b) 5400 (c) 14400 (d) 2560
- Q.9 Find the least number by which the following must be divided to make them perfect cubes.
(a) 53240 (b) 1024 (c) 2187 (d) 5400
- Q.10 Find the cube root of
(a) 1331 (b) 3375 (c) 15625 (d) 35937
(e) 42875 (f) 13824 (g) $18\frac{26}{27}$ (h) $-\frac{343}{729}$
(i) -0.001331 (j) 0.002197

Q.11 Evaluate

(i) $\sqrt[3]{\frac{-9261}{-15625}}$

Q.12 What is the edge of a cube whose volume is 46656 cm^3 ?

Q.13 Find the cube root of 216×1331 .

Q.14 A rectangular cubical piece of metal of dimensions $2\text{cm} \times 3 \text{ cm} \times 4 \text{ cm}$ is melted. Some more of the metal is added and it is made into a cube. The cube has integral measures for its sides. What is the minimum amount of metal that is added and what is the size of this cube.

Q.15 To collect rain water, Maria made a cubical tank which can hold 91125 m^3 water. She uses this water for watering the plants of her garden.

(i) What is the height of the tank

(ii) How long this tank is she