

## CUBES AND CUBE ROOTS

1. Which of the following numbers are perfect cubes?  
(iii) 243 (viii) 456533
2. Find the volume of a cube, each of whose edges measures 3.8 cm.
3. Find the smallest number by which 1323 must be multiplied so that the product is a perfect cube.
4. Find the smallest number by which 2560 must be multiplied so that the product is a perfect cube.
5. What is the smallest number by which 1600 must be divided so that the quotient is a perfect cube?
6. Find the smallest number by which 8788 must be divided so that the quotient is a perfect cube?

Find the cube root of

7.  $4\sqrt[4]{\frac{473}{2197}}$

8. 0.001

9. 0.003375

10. 0.001728

11. -9261

12. Show that

$$\sqrt[3]{343} \times \sqrt[3]{-64} = \sqrt[3]{343 \times -64} \quad \text{(iii) } \frac{\sqrt[3]{720}}{\sqrt[3]{1000}} = \sqrt[3]{\frac{720}{1000}}$$

13. The volume of a cubical box is 13.824 cubic meters. Find the length of each side of the box.
14. Multiply 26244 by the smallest number so that the product is a perfect cube. What is that number? Also find the cube root of the product.
15. Divide 88209 by the smallest number so that the quotient is a perfect cube. What is that number? Also find the cube root of the quotient.

**Answers**

1. (iii)no, yes
2.  $54.872 \text{ cm}^3$
3. 7
4. 25
5. 25
6. 4
7.  $1\frac{8}{13}$
8. 0.1
9. 0.15
10. 0.12
11. -21
13. 2.4 m
14. 6.54
15. 121.9

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