Cubes & Cube Roots Worksheet – 3

1. $\sqrt[3]{729 + 216}$ = $\sqrt[3]{729}$ + $\sqrt[3]{216}$. Mark True / False.

a) True b) False

2. Write the cube of first three multiples of 6.

a) 3446, 2364, and 216

b) 216, 1728, and 5,832

c) 2466, 1728, and 216

d) 4366, 216, and 5832

3. Three numbers are in the ratio 1 : 2 : 3 and the sum of their cubes are 12,348. Find the number.

a) 2, 3, 4 b) 6,12,18

c) 10, 15, 20 d) 7, 14, 21

4. Find the length of each side of cube, if its volume is 2,197 cm^3.

a) 21 cm b) 31 cm

c) 51 cm d) 13 cm

5. Difference of two perfect cubes is 448. If the cube root of smaller of the two numbers is 4, then find the cube root of the larger number.

a) 8 b) 10

c) 6 d) 11

6. Evaluate $\sqrt[3]{8}$ +$\sqrt[3]{0.027}$ +$\sqrt[3]{0.216}$.

a) 2.9 b) 3.6

c) 2.5 d) 2.04

7. Evaluate $\{3^2 + \sqrt[2]{(15)^2}\}^3$.

a) 378 b) 126

c) 13,824 c) 13,782

8. Evaluate $\sqrt[3]{35937 \times (-24{,}389)}$.

a) -957 b) -126

c) -698 c) -256

9. The smallest number by which 1152 should be multiplied to make it a perfect cube is _____.

a) 9 b) 12

c) 6 d) 18

10. The smallest number by which 23625 should be multiplied to make it perfect cube is _____.

a) 11 b) 7

c) 49 c) 10

11. Divide the number 8748 by smallest number so that the quotient is a perfect cube. Also find the cube root of quotient.

a) 12, 6 b) 12, 9

c) 12, 36 d) 6, 9

12. Find the cube root of 35,937 and get _____.

a) 23 b) 13

c) 27 d) 33

13. Find the cube root of $\frac{-24,389}{8000}$.

a) $\frac{-19}{20}$ b) $\frac{29}{20}$

c) $\frac{19}{20}$ d) $\frac{-29}{20}$

14. Find cube root of 37.8181.

a) 3.35 b) 4.29

c) 3.03 d) 1.09

15. Three numbers are in the ratio 1: 3 : 4. The sum of their cubes is 5,888. Find the numbers.

a) 5, 15, 20 b) 10, 30 ,40

c) 4, 12, 16 d) 3, 6, 18

16. Find the smallest number by which 15,552 should be multiplied so that product is a perfect cube. Also find the cube root of the product.

a) 6 and 26 b) 3 and 36

b) 9 and 33 d) None of these

17. Find the side of cube whose volume is 59,319.

a) 29 b) 19

c) 39 d) 43

18. Find cube root of $1\frac{218}{125}$ is _____.

a) $\frac{-7}{5}$ b) $\frac{-5}{7}$

c) $\frac{5}{7}$ d) $1\frac{2}{5}$

19. Two numbers are in the ratio 4:5. If difference of their cube is 1647, find the numbers.

a) 4 and 5 b) 12 and 15

c) 8 and 12 d) None of these

20. Difference of two perfect cube is 513. If the cube root of the greater of two numbers is 9, find the cube root of the smaller number.

a) 5 b) 6

c) 8 d) 3