

INDIAN SCHOOL AL WADI AL KABIR

Class VIII, Mathematics (2022-23)

Worksheet DTQ – CUBES AND CUBEROOTS

SHORT ANSWER TYPE QUESTIONS- 7 QUESTIONS.							
Q1.	Check whether 3375 is a perfect cube (show proper working).						
Q2.	Estimate the cube root of 68921.						
Q3.	Find the value of smallest positive integers n for which 135 x n is a perfect cube.						
Q4.	Which letter best represents the location of $\sqrt[3]{343}$ on a number line?						
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Q5.	Find the one's digit of the cube of each of the following: (a) 207 (b) 84						
Q6.	Find the cube of $4 - \frac{1}{3}$.						
Q7.	Rahul makes a cuboid of plasticine of sides 2 cm, 7 cm, 7 cm. How many such cuboids will he need to form a cube?						
SHORT ANSWER TYPE- 5 QUESTIONS. (3 Marks each)							
Q8.	The volume of a cube is 2197 m^3 . Find the length of the side of the cube.						
Q9.	Find $\frac{\sqrt[3]{729}}{\sqrt[3]{1728}}$						
Q10.	Find the value of $\sqrt[3]{\sqrt{441} + \sqrt{16} + \sqrt{4}}$						
Q11.	Find the smallest number by which 68600 should be multiplied to get a perfect cube. Also find the cube root of the product so obtained.						
Q12.	If $91125 = 3 \times 3 \times 3 \times 3 \times 3 \times 3 \times 5 \times 5 \times 5$, then find $\sqrt[3]{\frac{91125}{125}}$						

LONG ANSWER TYPE- 3 QUESTIONS. (4 Marks each)						
Q.13	Evaluate $\sqrt[3]{27} + \sqrt[3]{0.008} + \sqrt[3]{0.064}$					
Q14.	Find the smallest number by which 120393 is divided so that the quotient is a					
	perfect cube. Also find the cube root of the quotient.					
Q15.	Three numbers are in the ratio 2:3:5. Sum of their cubes is 54880. Find the					
	numbers (HOTS)					

ANSWERS								
Q1.	Yes	Q2.	41	Q3.	25			
Q4.	D	Q5.	a) 3 b) 4	Q6.	$\frac{1000}{27}$			
Q7.	28	Q8.	13 m	Q9.	$\frac{9}{12}$			
Q10.		Q11.	5, 70	Q12.	9			
Q13.	3.6	Q14.	13, 21	Q15.	14,21,35			