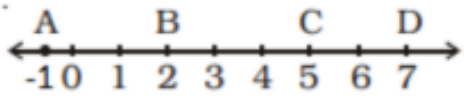
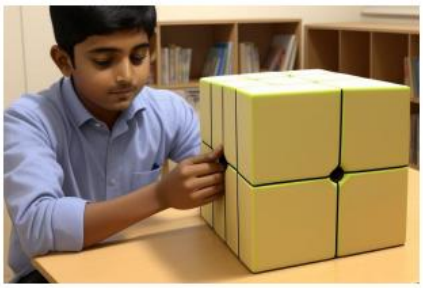
INDIAN SCHOOL AL WADI AL KABIR
Class VIII, Mathematics
WORKSHEET-CUBES AND CUBEROOTS (2025-26)

Multiple Choice Questions

Q.1.	Which of the following is equal to its own cube?						
	A	-1	B	-2	C	-3	D	-9
Q.2.	How many digits will be there in the cube root of 46656?						
	A	5	B	4	C	3	D	2
Q.3.	If $\sqrt[3]{185193} = 57$, then the value of $\sqrt[3]{185193} + \sqrt[3]{185.193} + \sqrt[3]{0.000185193}$ is						
	A	6.327	B	63.275	C	632.75	D	62.757
Q.4.	The value of $\frac{\sqrt[3]{125}+\sqrt[3]{216}}{\sqrt[3]{1331}}$ is						
	A	1	B	5	C	6	D	11
Q.5.	Which letter best represents the location of $\sqrt[3]{343}$ on a number line? 						
	A	A	B	B	C	C	D	D
Q.6.	The smallest number which is to be added to 725 to make it a perfect cube is:						
	A	4	B	5	C	6	D	9
Q.7.	The prime factorization of a number is given as 2 × 2 × 2 × 3 × 3 × 3 × 7 × 7. What would be smallest number by which the given factors should be divided so that the result obtained is a perfect cube?						
	A	7	B	8	C	49	D	27
Q.8.	If $\sqrt[3]{\frac{x}{y}} = \frac{7}{9}$, then $\frac{x}{y} =$						
	A	$\frac{49}{81}$	B	$\frac{343}{729}$	C	$\frac{49}{729}$	D	$\frac{343}{81}$

Q.9	The digit in the ones place of the cube of a number having 7 at its one's place is							
	A	9	B	3	C	7	D	4
Q10	Which of the following is a perfect cube?							
	A	10000	B	243	C	343	D	270000
	LONG ANSWER QUESTIONS:							
Q.11	Sujatha makes a cuboid of plasticine of sides 5 cm, 2 cm, 5 cm. How many minimum such cuboids will she need to form a cube?							
Q.12	Evaluate: $\sqrt[3]{1000} + \sqrt[3]{0.125} - \sqrt[3]{0.008}$							
Q.13	The volume of a cube is 9261000m^3. Find the side of the cube.							
Q.14	Find the value of $\sqrt[3]{27 \times 2744}$							
Q.15	Evaluate the cube root of $\frac{686}{1024}$							
Q16	Find the cube root of 5832 by the method of prime factorization.							
Q.17	Find the smallest natural number by which 53240 must be divided so that the quotient obtained is a perfect cube.							
Q.18	Find the smallest number by which 3645 must be multiplied so that the product obtained is a perfect cube.							
Q.19	Three numbers are in the ratio 2:3:4. If the sum of their cubes is 33957, find the numbers.							
Q.20	**CASE STUDY-1:** Mohan has to prepare a physics project in form of a cubical box for a social work campaign but he had a cuboidal box of sides 4 cm, 3 cm, 4 cm. Now he has to change it in the form of cube so that he can complete his project. For this, he needed more cuboids so that he can make his project in form of cube.  (a) What is the volume of the cuboidal box? (b) How many cuboids are more needed? (c) Find value of $(0.02)^3$.							

ANSWERS							
Q.1	A	**Q.2**	D	**Q.3**	D	**Q.4**	A
Q.5	D	**Q.6**	A	**Q.7**	C	**Q.8**	B
Q.9	B	**Q.10**	C	**Q.11**	20	**Q.12**	10.7
Q.13	210m	**Q.14**	42	**Q.15**	$\frac{7}{8}$	**Q.16**	18
Q.17	5	**Q.18**	25	**Q.19**	14, 21, 28	**Q.20**	$48cm^2$,36, 0.000008