



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

Multiple Choice questions

Q.1.	Which of the following is not a perfect cube?							
	A	512	B	4096	C	216	D	367
Q.2.	Find the smallest number by which 6561 should be multiplied to obtain a perfect cube?							
	A	4	B	3	C	8	D	2
Q.3.	The cube root of the number -258847							
	A	Is always negative.	B	May be positive.	C	Is always positive.	D	Cannot be determined.
Q.4.	The prime factorization of a number is $3 \times 3 \times 3 \times 3 \times 3 \times 5 \times 5 \times 5 \times 7 \times 7 \times 2$. The smallest number by which it should be multiplied to obtain a perfect cube is							
	A	84	B	34	C	23	D	56
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 side of the cube whose volume is 17576 m^3 is							
	A	24m	B	26m	C	28m	D	36m
Q.7.	The smallest number which is to be subtracted from 221 to make it a perfect cube is:							
	A	5	B	6	C	9	D	4
Q8.	How many perfect cube numbers are there between 1 and 1000?							
	A	998	B	10	C	8	D	9
Q9	The value of smallest positive integers n for which $864 \times n$ is a perfect cube is							
	A	4	B	2	C	3	D	12

Q10	$\sqrt[3]{729} \div \sqrt[3]{27}$							
A	1	B	2	C	3	D	4	

SOURCE BASED QUESTION

Tomsy and Jay were playing number cards. Each one in turns need to select a card and the other person need to ask questions based on the number on the number card selected.



Based on the information answer the following questions.

Q11	Jay wrote the prime factorization of a number as $2 \times 2 \times 2 \times 3 \times 3 \times 3 \times 7 \times 7$. What would be smallest number by which the given factors should be divided so that the result obtained is a perfect cube?
Q12	The digit in the ones place of the cube of a number having 7 at its ones place is _____.
Q13	The smallest three-digit number which is a perfect cube is _____.
Q14	The dimensions of a cuboid are 7 cm, 2 cm and 7 cm respectively. The number of identical cuboids required to form a cube is _____.
Q15	Tomsy asks Jay, "Think of a number". If the cube of that number is 157464, find the number.

CASE STUDY:

Marina was extremely afraid of darkness. When the lights went out, everything and every shadow appeared to her as the most terrible of monsters. Her parents with great patience explained to her every day that these things were not monsters.

Marina was diagonised to suffer from Nyctophobia.

Aunt Veronica tried to install a solar cuboidal lamp in the room.

Based on the above context, answer the following questions.



Q 16	The length, breadth and height of the cuboid are in the ratio 3:4:5. If the sum of their cubes is 27000, then the dimensions are							
A	30, 40, 50	B	60, 80, 100	C	5, 10, 15	D	15, 20, 25	

Q 17	If $\sqrt[3]{\frac{x}{y}} = \frac{2}{3}$, then $\frac{x}{y} =$							
	A	$\frac{8}{27}$	B	$\frac{8}{9}$	C	$\frac{4}{9}$	D	$\frac{4}{27}$
Q 18	$\sqrt[3]{\sqrt[3]{8000} + \sqrt[3]{343}} =$							
	A	20	B	3	C	7	D	27
Q 19	If one side of a cube is 18 m in length, its volume is							
	A	$2186m^3$	B	$1459m^3$	C	$1728m^3$	D	$5832m^3$
Q 20	The cube of $\frac{-6}{11}$ is							
	A	$\frac{36}{121}$	B	$\frac{-36}{121}$	C	$\frac{-216}{1331}$	D	$\frac{216}{1331}$

ANSWERS

1.	D	2.	B	3.	A	4.	A
5.	D	6.	B	7.	A	8.	C
9.	B	10.	C	11.	49	12.	3
13.	125	14.	28	15.	54	16.	D
17.	A	18.	B	19.	D	20.	C