

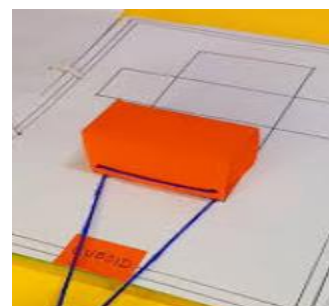
INDIAN SCHOOL AL WADI AL KABIR
Class VIII, Mathematics
WORKSHEET-1(MENSURATION) (2025-26)

Multiple Choice Questions

Q.1.	One diagonal of a rhombus is 16 cm and its area is 96 cm^2 . Find the other diagonal.							
	A	12 cm	B	2 cm	C	10 cm	D	9 cm
Q.2.	The lengths of the parallel sides of a trapezium are 12 cm and 8 cm, and the distance between them is 6 cm. Find its area.							
	A	60 sq.cm	B	40sq.cm	C	30sq.cm	D	20 sq.cm
Q.3.	A cuboid has dimensions $12 \text{ cm} \times 8 \text{ cm} \times 6 \text{ cm}$. Find its total surface area.							
	A	6.327 sq.cm	B	432 sq.cm	C	432.75 sq.cm	D	400 sq.cm
Q.4.	Find the total surface area of a cube of side 5 cm							
	A	100 sq.cm	B	150 sq.cm	C	600 sq.cm	D	110 sq.cm
Q.5.	The area of a trapezium is 120 cm^2 . If one of the parallel sides is 10 cm, the other parallel side is 14 cm, find the distance between them.							
	A	9 cm	B	11 cm	C	10cm	D	12cm
Q.6.	Find the volume of a cube whose side is 7 cm.							
	A	49 cm^3	B	50 cm^3	C	343 cm^3	D	21 cm^3
Q.7.	One of the parallel sides of a trapezium is twice the other. If the distance between them is 10 cm and the area is 450 cm^2 , find the lengths of the parallel sides. (CBQ)							
	A	10 and 30 cm	B	8 and 9 cm	C	49 and 50 cm	D	30 and 60cm
Q.8.	The parallel sides of a trapezium are 18 cm and 12 cm, and the height is 10 cm. Find its area.							
	A	100 sq.cm	B	600 sq.cm	C	110 sq.cm	D	150sq.cm
Q.9	A cube has a volume of 343 cm^3 . Find its surface area							
	A	942 sq.cm	B	294 sq.cm	C	742 sq.cm	D	400 sq.cm
Q10	The area of a rhombus is 120 cm^2 . If one diagonal is 15 cm, find the other diagonal.							
	A	30 cm	B	60 cm	C	16 cm	D	6 cm

LONG ANSWER QUESTIONS:

Q.11	A box is in the shape of a cuboid of dimensions $12\text{ cm} \times 10\text{ cm} \times 8\text{ cm}$. How many $2\text{ cm} \times 2\text{ cm} \times 2\text{ cm}$ cubes can fit inside it?
Q.12	A trapezium has parallel sides of 25 cm and 15 cm . If its area is 400 cm^2 , find the height.
Q.13	A cuboid has dimensions $15\text{ cm} \times 10\text{ cm} \times 8\text{ cm}$. Find its total surface area and volume.
Q.14	A cuboid box measures $21\text{ cm} \times 15\text{ cm} \times 12\text{ cm}$. How many small cubes of side 3 cm can be stored inside it (without gaps)?
Q.15	The parallel sides of a trapezium are 20 cm and 12 cm , and the height is 10 cm . Find its area.
Q.16	A cuboid has dimensions $10\text{ cm} \times 18\text{ cm} \times 16\text{ cm}$. Find its volume and total surface area.
Q.17	A cylindrical water tank has a radius of 3.5 m and a height of 7 m . Find its curved surface area
Q.18	A solid cube has a side of 6 cm . If the cube is painted on all its faces, find the area to be painted.
Q.19	<p>CASE STUDY-1: A school is planning to paint a cylindrical water tank placed on its terrace. The tank has a radius of 4.2 m and a height of 5 m. The school wants to paint the curved surface area and the top circular surface, as the bottom is fixed on the platform. To estimate the cost of painting, the school needs to find the total area to be painted.</p> <p>a) Write the formula for the curved surface area (C.S.A.) of a cylinder. (b) Write the formula for the total area to be painted. (c) Find the total area to be painted. (d) If the cost of painting is $\text{₹}25\text{ per m}^2$, find the total cost of painting the tank.</p>
Q.20	<p>CASE STUDY-2: Deepthi has to prepare a mathematics still model in form of a cubical box for a competition. But she had a cuboidal box of sides 10 cm, 2 cm, 8 cm. She has 7 such cuboids.</p> <p>(a) What is the volume each cuboidal box? (b) What is the total volume?</p>



ANSWERS

Q1	A	Q2	A	Q3	B	Q4	B
Q5	C	Q6	C	Q7	D	Q8	D
Q9	B	Q10	C	Q11	120	Q12	20 cm
Q13	1200 cm ³	Q14	100	Q15	160 cm ²	Q16	Volume=2880 cm³ Total Surface Area=1256 cm²
Q17	154 m ²	Q18	216 cm ²	Q19	Curved Surface Area formula: $2\pi rh$ Total area to be painted formula: $\pi(2rh + r^2)$ Total area to be painted: 187.34 m ² Total cost of painting: ₹4683.50	Q20	(a) 160 cm ³ (b) 1120 cm ³
