



INDIAN SCHOOL AL WADI AL KABIR

Class VIII, Mathematics (2022-23)

Worksheet DTQ – Mensuration

SHORT ANSWER TYPE QUESTIONS- 7 QUESTIONS. (2 Marks each)

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| Q1. | The surface area of a cube is 384cm^2 . Find its edge length. |
| Q2. | The area of rhombus is 176cm^2 . If one of the diagonals is 16 cm, find the length of the other diagonal. |
| Q3. | Three cubes each of side 5 cm are joined end to end. What is surface area of resulting cuboid? |
| Q4. | A lawn roller 1 m wide and 80cm high. What area is covered in each revolution? |
| Q5. | A closed cylindrical tank of diameter 7cm and height 4cm is made from a sheet of metal. How much sheet of metal is required? (use $\pi = 3.14$) |
| Q6. | The radius of a semi-circular plot is 7m. what is the cost of planting grass at the rate of ₹15 per m^2 . |
| Q7. | Find the area of quadrilateral whose diagonal is 60.5cm and altitudes on the diagonal 4cm and 5cm? |

SHORT ANSWER TYPE- 5 QUESTIONS. (3 Marks each)

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| Q8. | The perimeter of one face of cube is 20 cm. Find the lateral surface area and volume. |
| Q9. | The area a trapezium is 384cm^2 . Its parallel sides are in the ratio 3:5 and the perpendicular distance between them 12cm. Find the length of each of the parallel sides. |
| Q10. | A birthday gift is 55cm long, 40 cm wide and 5cm high. The sheet of paper you want to use to wrap it measures 75cm by 100 cm. Is the paper large enough to wrap the gift? |
| Q11. | A barrel contains 39.6 litres of lemon juice. How cylindrical glasses 16 cm tall and diameter 6cm can be filled with juice to a height of 14cm. |
| Q12. | A closed metal box of internal dimensions $25\text{cm} \times 18\text{cm} \times 15\text{cm}$ lined with paper. Find the area of the paper required. |

LONG ANSWER TYPE- 3 QUESTIONS. (4 Marks each)

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| Q.13 | The diameter of a roller is 80cm and its length 126cm. It takes 750 complete revolutions moving over once to level a playground. Find the area of the playground. |
| Q14. | Find the cost of white washing the four walls of with length 8m, breadth 6m and height 4m at the rate of ₹ 25 per sq.m. Also find the cost of polishing the floor at the rate of ₹12 per sq.m. |

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| Q15. | The dimensions of the floor of a room is $8\text{m} \times 4.8\text{m}$. To tile the floor with rhombus-shaped tiles of diagonals $16\text{cm} \times 12\text{cm}$ costing ₹24 Used. Find the cost of tiles needed. |
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ANSWERS

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| Q1. | 8cm | Q2. | 22 cm | Q3. | 350cm^2 |
| Q4. | 17.6m^2 | Q5. | 164.85cm^2 | Q6. | ₹1155 |
| Q7. | 272.25cm^2 | Q8. | $100\text{cm}^2, 125\text{cm}^3$ | Q9. | 28cm, 40cm |
| Q10. | $5350\text{cm}^2, \text{yes}$ | Q11. | 10 | Q12. | 2190cm^2 |
| Q13. | 2376m^2 | Q14. | ₹2800, ₹576 | Q15. | ₹96000 |