International Indian School, Riyadh
worksheet for SA2
Subject: Mathematics   Std: VIII
Chapter 11. Mensuration

Note: Revise all "Try These" Exercises and Solved examples given before each exercise of this chapter in the text book.

Q1: A flooring tile has the shape of a parallelogram whose base is 28cm and the corresponding height is 20cm. How many such tiles are required to cover a floor of area 2800 cm² (Ans: 50,000 tiles)

Q2. If the perimeter of a trapezium is 52cm, its non-parallel sides are equal to 10cm each and its altitude is 8cm, find the area of the trapezium. (Ans: 128 cm²)

Q3. One side of a rhombus is 6.5cm and the altitude is 4cm. Find the area of the rhombus? (Ans: 26 cm²)

Q4. The diagonals of a rhombus are 15cm and 20cm. What is its area? Find also its perimeter. (Ans: A = 150 cm², P = 50 cm)

Q5. The parallel sides of a trapezium are 15cm and 8cm, and the distance between them is 12cm. What is the area of the trapezium? (Ans: 138 cm²)

Q6. The area of a trapezium of height 3cm is 12 cm². If one of the parallel sides is 3cm, what is length of the other? (Ans: 5cm)

Q7. A diagonal of a quadrilateral is 20 m in length and the perpendiculars dropped on it from the remaining opposite vertices are 8.5m and 11m. Find the area of the quadrilateral (Ans: 110 m²)

Q8. The area of a rhombus is 28 cm² and its perimeter is 28cm. Find its altitude? (Ans: 4cm)

Q9. Find the area of a rhombus, one of whose sides is 25m and one of whose diagonals is 48m. (Ans: 336 m²)

Q10. The area of a rhombus is 216 cm². If one diagonal is 18cm, find the other. (Ans: 24 cm)

Q11. The cross-section of a canal is a trapezium in shape. If the canal is 10m wide at the top and 6m wide at the bottom and the area of cross-section is 72 m² determine its depth. (Ans: 9m)

Q12. A garden is in the form of a rhombus whose side is 30 m and the corresponding altitude is 16m. Find the cost of levelling the garden at the rate of Rs 2 per m². (Ans: Rs 960)

Q13. Find the side of a cube whose surface area is 2400 cm². (Ans: 20 cm)

Q14. A cuboid has total surface area 50m² and lateral surface area 30m². Find the area of its base. (Ans: 10m²)

Q15. A swimming pool is 20m long 15m wide and 3m deep. Find the cost of repairing the floor and walls at the rate of Rs 25 per square metre. (Ans: Rs 12750)

Q16. Find the Volume of a cylinder whose height is 2m and area of the base is 250 m²? (Ans: 500 m²)

Q17. Find the volume of a cuboid whose height is 5m and base area is 28 m². (Ans: 140 m³)

Q18. In a building there are 20 cylindrical pillars. The radius of each pillar is 28cm and height is 4m. Find the total cost of painting the curved surface area of all pillars at the rate of Rs 10 per m². (Ans: Rs 1408)

Q19. The radius and height of a cylinder are 14 cm and 51 cm respectively. Find the Volume, curved surface area and total surface area of the cylinder. (Ans: V = 31416 cm³, C.S.A = 4488 cm², T.S.A = 5720 cm²)

Q20. A rectangular sheet of paper, 44 cm x 20 cm, is rolled along its length to form a cylinder. Find the volume of the cylinder so formed. (Ans: 3080 cm³)

Q21. Find the capacity in litres of a cylindrical vessel open at the top whose internal diameter is 8.4 cm and depth is 20 cm. (Ans: 1.1 L)

Q22. How many cubes each of side 3cm can be made from a cuboid whose dimensions are 21cm x 27cm x 8cm (Ans: 168)

Q23. Find the cost of painting a closed cylindrical drum whose radius is 49cm and height is 2m, if the cost of painting is Rs 2 per cm². (Ans: Rs 153384)

Q24. The radius of a roller is 0.7m and it is 2m long. How much area will it cover in 10 revolutions? (Ans: 88m²)

Q25. The volume of a cylinder is 6358 cm³ and its height is 28cm. Find its radius and curved surface area. (Ans: r=8.5cm, C.S.A = 1496 cm²)

Q26. The area of four walls of a room is 91m². If the room is 13m long and 4.5m broad, find its height. (Ans: 2.6m)

Q27. The floor of a rectangular hall has a perimeter of 250m. If its height is 6m, find the cost of painting its four walls at the rate of Rs20 per m². (Ans: Rs 30,000)

Q28. Find the height of a cylinder whose radius is 14 cm and the total surface area is 968 cm². (Ans: 25cm)

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