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MENSURATION

2D MENSURATION

- 1. A room is half as long again as it is wide. The cost of carpeting it at 62 paise per square metre is Rs. 2916.48. Find the cost of white washing the ceiling at 30 paise per metre :
 - a) Rs. 2211.5 b) Rs. 1114.2
 - c) Rs. 1411.2 d) can't be determined
- 2. A path of uniform width runs all around the inside of rectangular field 116 m by 68 m and occupies 720 sq. m. Find the width of the path :
 - a) 1 m b) 1.5 m
 - c) 2 m d) 4 m
- The integral base of an isosceles triangle can be whose area is 60 cm² and the length of one of the equal sides Is
 13 cm :
 - a) 20 cm b) 10 cm
 - c) 16 cm d) data insufficient
- 4. If the altitude of an equilateral triangle is $2\sqrt{3}$, then its area is :
 - a) $4\sqrt{3}$ cm² b) $12\sqrt{3}$ cm²
 - c) $8/\sqrt{3}$ cm² d) none of these
- 5. The ratio of the lengths of the diagonal of a rhombus is 2:5. Then, the ratio of the area of the rhombus to the square of the shorter diagonal:
 - a) 5 : 4 b) 5 : 2
 - c) 2 : 5 d) none of these
- 6. The area of a hexagon whose one side is 4 m, is :
 - a) $6\sqrt{3} \text{ m}^2$ b) $24\sqrt{3} \text{ m}^2$ c) $42\sqrt{3} \text{ m}^2$ d) 24 m^2
- 7. The area of a trapezium is 441 cm² and the ratio of parallel sides is 5:9. Also, the perpendicular distance between them is 21 cm, the length of parallel sides is:
 - a) 36 cm b) 27 cm
 - c) 18 cm d) 28 cm
- 8. The area of a minor sector subtending the central angle at the centre 40° is 8.25 cm². What is the area of the remaining part (i.e., major sector) of the circle?
 - a) 82.5 cm² b) 74.25 cm²
 - c) 66 cm² d) none of these
- 9. The area of a rhombus having one side 10 cm and one diagonal 12 cm is
 - a) 48 cm² b) 96 cm²
 - c) 144 cm² d) 192 cm²
- 10. In a trapezium ABCD, AB and DC are parallel sides and \angle ADC = 90°. If AB = 15 cm, CD = 40 cm and diagonal AC = 41 cm. Then the area of the trapezium ABCD is
 - a) 245 cm² b) 240 cm²
 - c) 247.5 cm² d) 250 cm²
- 11. Two adjacent sides of a parallelogram are of lengths 15 cm and 18 cm. If the distance between two smaller sides is 12 cm, then the distance between two bigger sides is
 - a) 8 cm b) 10 cm
 - c) 12 cm d) 15 cm

3D MENSURATION

- 12. Three cubes of metal, whose edges are 3 cm, 4 cm and 5 cm respectively are melted to form a new cube. What is the surface area of the new cube?
 - a) 216 cm² b) 56 cm²
 - c) 36 cm² d) none of these



- 13. The length of longest pole that can be placed on the floor of a room is 12 m and the length of longest pole that can be placed in the room is 15 m. The height of the room is :
 - a) 3 m b) 6 m
 - c) 9 m d) none of these
- 14. If the areas of 3 adjacent sides of a cuboid are x, y, z respectively, then the volume of the cuboid is :
 - a) xyz b) xyz
 - c) 3xyz d) none of these
- 15. The lateral surface area of a cylinder is 1056 cm² and its height is 16 cm. What is its volume?
 - a) 5566 cm³ b) 4455 cm³
 - c) 5544 cm³ d) none of these
- 16. The amount of concrete required to build a cylindrical pillar whose base has a perimeter of 8.8 m and whose curved surface area is 17.6 m².
 - a) 12.32 m³ b) 12.23 m³
 - c) 9.235 m³ d) 8.88 m³
- 17. The radii of two cylinders are in the ratio of 3 : 5 and their heights are in the ratio 4 : 3. The ratio of their volumes is :
 - a) 12 : 25 b) 13 : 25
 - c) 4 : 5 d) 5 : 4
- 18. How many metres of cloth 10 m wide will be required to make a conical tent with base radius of 14 m and height is 48 m?
 - a) 110 m c) 55 m
 - b) 77 m d) 220 m
- Three cubes of iron whose edges are 6cm, 8cm and 10cm respectively are melted and formed into a single cube. The edge of the new cube formed is
 - a) 12 cm b) 14 cm
 - c) 16 cm d) 18 cm

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