EduSahara™ Worksheet

Name : Chapter Based Worksheet

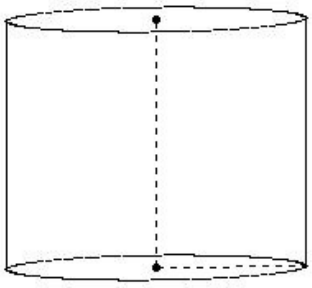
Chapter : Surface Areas and Volumes

Grade : CBSE Grade X

1. An ice cream container has the shape of a right circular cylinder having inner diameter 32.00 cm and height 39.00 cm . The ice cream is filled into cones of diameter 19.00 cm and height 13.00 cm , having a hemispherical shape on the top. Find the number of such complete cones which can be filled with ice cream

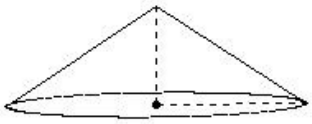
   (i) 13 (ii) 15 (iii) 5 (iv) 10 (v) 7

2. If the radius of a cylinder is 9.00 cm and volume is 3818.57 cu.cm, its base area is



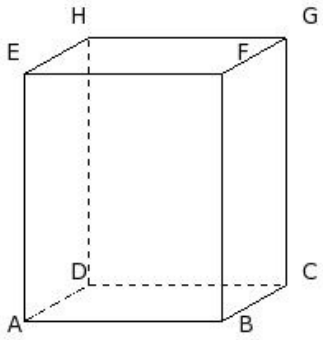
   (i) 230.57 sq.cm (ii) 238.57 sq.cm (iii) 254.57 sq.cm (iv) 261.57 sq.cm (v) 272.57 sq.cm

3. If the base radius of a cone is 9.00 cm and slant height is 10.82 cm, its volume is



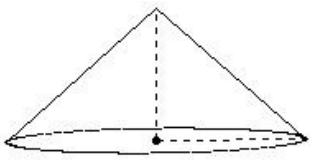
   (i) 497.14 cu.cm (ii) 513.14 cu.cm (iii) 509.14 cu.cm (iv) 533.14 cu.cm

4. If the length, breadth and L.S.A of a cuboid are 12.00 cm, 9.00 cm and 630.00 sq.cm respectively, its height is



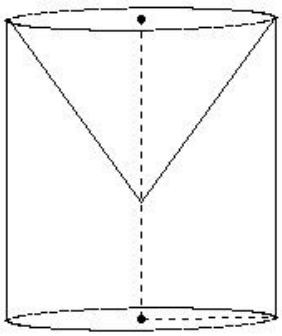
   (i) 12.00 cm (ii) 20.00 cm (iii) 18.00 cm (iv) 10.00 cm (v) 15.00 cm

5. If the base radius of a cone is 9.00 cm and T.S.A is 595.13 sq.cm, its volume is



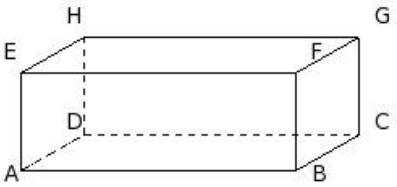
   (i) 678.86 cu.cm (ii) 692.86 cu.cm (iii) 705.86 cu.cm (iv) 656.86 cu.cm (v) 662.86 cu.cm

6. From a solid cylinder of height 18.00 cm and base radius 8.00 cm, a conical cavity of height 11.00 cm and base radius 8.00 cm is drilled out. Find the volume of the resulting solid



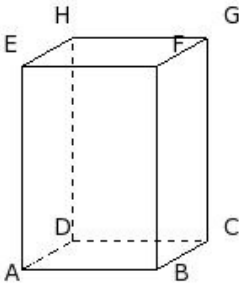
(i) 3053.05 cu.cm (ii) 2763.05 cu.cm (iii) 2883.05 cu.cm

7. If the length, height and volume of a cuboid are 17.00 cm, 6.00 cm and 918.00 cu.cm respectively, its breadth is



(i) 8.00 cm (ii) 7.00 cm (iii) 10.00 cm (iv) 11.00 cm (v) 9.00 cm

8. If the length, breadth and T.S.A of a cuboid are 8.00 cm, 7.00 cm and 472.00 sq.cm respectively, its height is

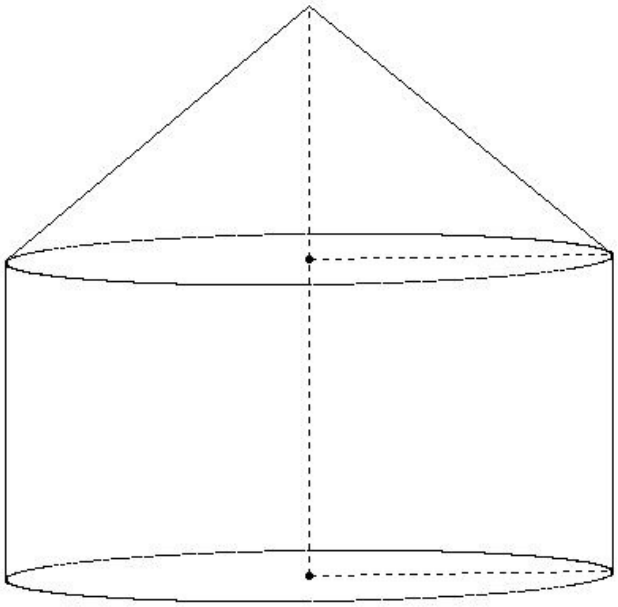


(i) 12.00 cm (ii) 17.00 cm (iii) 9.00 cm (iv) 15.00 cm (v) 7.00 cm

9. A cone of maximum volume is carved out of a cube of edge 20.00 cm. Find the volume of the cone

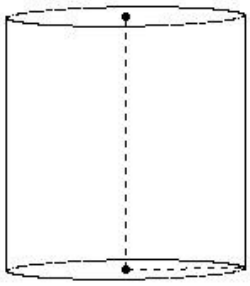
(i) 2035.24 cu.cm (ii) 1945.24 cu.cm (iii) 2315.24 cu.cm (iv) 2135.24 cu.cm (v) 2095.24 cu.cm

10. A tent is in the form of a cylinder surmounted by a cone., The height of the tent above the ground is 36 m and the height of the cylindrical part is 20.00 m. If the diameter of the base is 38.00 m, find the quantity of canvas required to make the tent. Allow 16% extra for folds and for stitching.



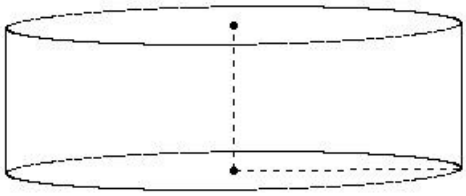
(i) 4361.37 sq.m (ii) 4491.37 sq.m (iii) 4531.37 sq.m (iv) 4251.37 sq.m (v) 4611.37 sq.m

11. If the radius of a cylinder is 7.00 cm and height is 15.00 cm, its L.S.A. is



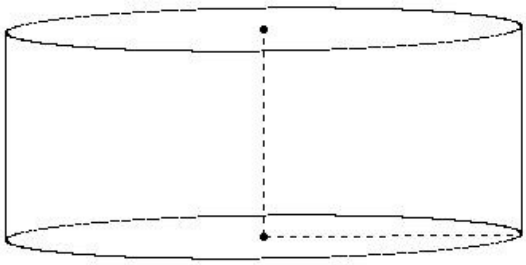
(i) 676.00 sq.cm (ii) 672.00 sq.cm (iii) 647.00 sq.cm (iv) 660.00 sq.cm (v) 646.00 sq.cm

12. If the height of a cylinder is 9.00 cm and L.S.A is 792.00 sq.cm, its radius is



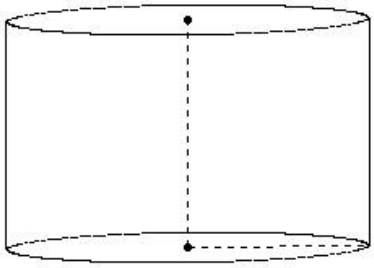
(i) 9.00 cm (ii) 19.00 cm (iii) 11.00 cm (iv) 14.00 cm (v) 17.00 cm

13. If the radius of a cylinder is 16.00 cm and L.S.A is 1307.43 sq.cm, its T.S.A is



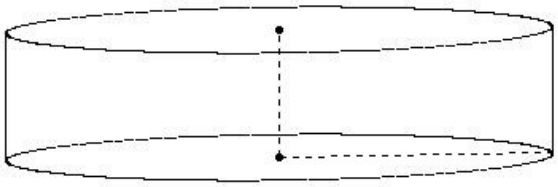
(i) 3066.57 sq.cm (ii) 2696.57 sq.cm (iii) 2896.57 sq.cm (iv) 2916.57 sq.cm (v) 3056.57 sq.cm

14. If the height of a cylinder is 14.00 cm and base area is 380.29 sq.cm, its L.S.A. is



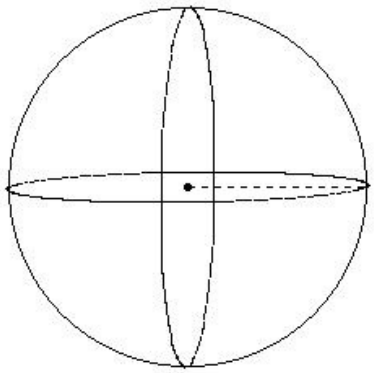
(i) 981.00 sq.cm (ii) 968.00 sq.cm (iii) 952.00 sq.cm (iv) 953.00 sq.cm (v) 976.00 sq.cm

15. If the height of a cylinder is 8.00 cm and base area is 908.29 sq.cm, its volume is



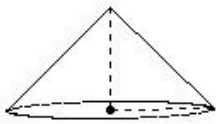
(i) 7386.29 cu.cm (ii) 7296.29 cu.cm (iii) 7036.29 cu.cm (iv) 7266.29 cu.cm (v) 7116.29 cu.cm

16. If the volume of a sphere is 5577.52 cu.cm, its radius is



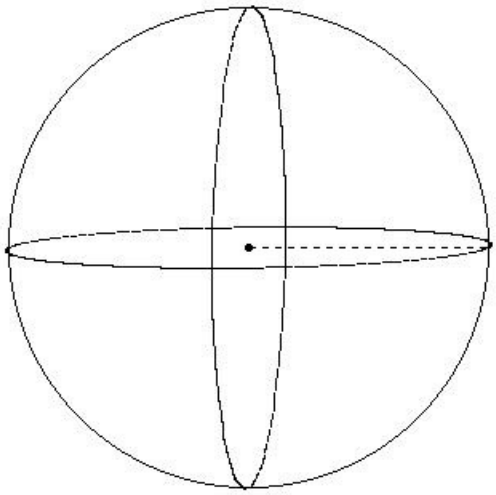
(i) 14.00 cm (ii) 11.00 cm (iii) 6.00 cm (iv) 8.00 cm (v) 16.00 cm

17. If the base radius of a cone is 6.00 cm and vertical height is 6.00 cm, its T.S.A is



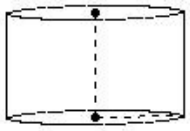
(i) 273.24 sq.cm (ii) 259.24 sq.cm (iii) 286.24 sq.cm (iv) 255.24 sq.cm

18. If the T.S.A of a sphere is 2828.57 sq.cm, its L.S.A is



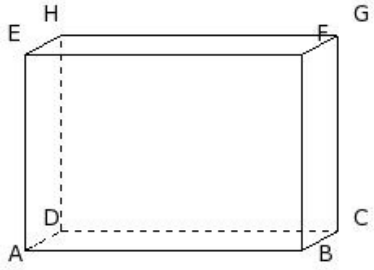
(i) 3108.57 sq.cm (ii) 2828.57 sq.cm (iii) 2588.57 sq.cm (iv) 2788.57 sq.cm (v) 2948.57 sq.cm

19. If the height of a cylinder is 6.00 cm and L.S.A is 188.57 sq.cm, its T.S.A is



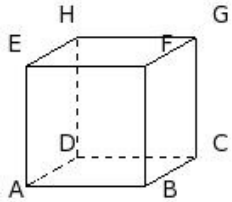
(i) 320.71 sq.cm (ii) 367.71 sq.cm (iii) 359.71 sq.cm (iv) 345.71 sq.cm (v) 342.71 sq.cm

20. If the length, breadth and height of a cuboid are 17.00 cm, 5.00 cm and 12.00 cm respectively, its volume is



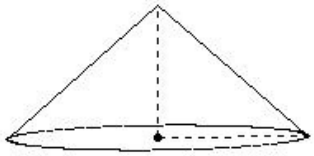
(i) 1020.00 cu.cm (ii) 1150.00 cu.cm (iii) 1280.00 cu.cm (iv) 840.00 cu.cm (v) 870.00 cu.cm

21. If the volume of a cube is 343.00 cu.cm, its L.S.A is



(i) 183.00 sq.cm (ii) 196.00 sq.cm (iii) 181.00 sq.cm (iv) 210.00 sq.cm (v) 209.00 sq.cm

22. If the base radius of a cone is 9.00 cm and volume is 678.86 cu.cm, its L.S.A. is



(i) 340.56 sq.cm (ii) 333.56 sq.cm (iii) 366.56 sq.cm (iv) 327.56 sq.cm (v) 354.56 sq.cm

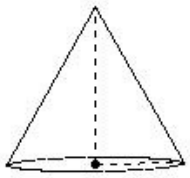
23. The height of a right circular cone is 30.00 cm and the radius of its base is 7.50 cm. It is melted and recast into a right circular cone with base radius 6.00 cm. Find the new height

(i) 51.88 cm (ii) 49.88 cm (iii) 43.88 cm (iv) 41.88 cm (v) 46.88 cm

24. An open cylindrical vessel of internal diameter 25.00 cm and height 18.00 cm stands on a horizontal table. Inside this is placed a solid metallic right circular cone, the diameter of whose base is 12.50 cm and height 18.00 cm and filled with water. If the cone is replaced by another cone whose height is 9.00 cm and base radius is 1.88 cm, find the drop in the water level.

(i) 9.43 cm (ii) 1.43 cm (iii) 0.43 cm (iv) 3.43 cm (v) 2.43 cm

25. If the base radius of a cone is 5.00 cm and volume is 235.71 cu.cm, its slant height is



(i) 10.30 cm (ii) 13.30 cm (iii) 7.30 cm (iv) 5.30 cm (v) 15.30 cm

Assignment Key

1) (iv)	2) (iii)	3) (iii)	4) (v)	5) (i)	6) (iii)
7) (v)	8) (i)	9) (v)	10) (ii)	11) (iv)	12) (iv)
13) (iv)	14) (ii)	15) (iv)	16) (ii)	17) (i)	18) (ii)
19) (iv)	20) (i)	21) (ii)	22) (i)	23) (v)	24) (ii)
25) (i)					