

Name: Chapter Based Worksheet

Chapter: Cone and Sphere

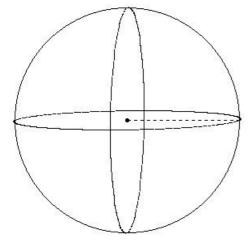
Grade: ICSE Grade X

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A conical vessel, whose internal radius is 5.50 cm and height 28.00 cm, is full of liquid. Its contents are emptied 1. into a cylindrical vessel with internal radius 3.00 cm. Find the height to which the liquid rises in the cylindrical vessel.

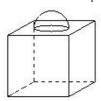
(i) 26.37 cm (ii) 28.37 cm (iii) 34.37 cm (iv) 36.37 cm (v) 31.37 cm

2. If the radius of a sphere is 14.00 cm, its T.S.A is



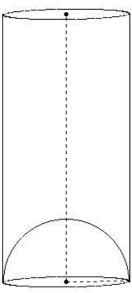
(i) 2414.00 sq.cm (ii) 2224.00 sq.cm (iii) 2594.00 sq.cm (iv) 2464.00 sq.cm (v) 2734.00 sq.cm

3. If two solids, a cube and a hemisphere are combined such that the base of the block is a cube with edge 7.00 cm and the hemisphere fixed on the top has a diameter of 4.00 cm, find the total surface area of the block.



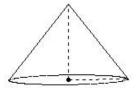
(i) 283.57 sq.cm (ii) 306.57 sq.cm (iii) 291.57 sq.cm (iv) 320.57 sq.cm (v) 334.57 sq.cm

4. A hemispherical depression is cut out from one face of a cylinder. The height of the cylinder is 32.00 cm and its radius is 7.50 cm. Find the total surface area of the solid



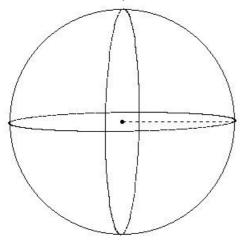
(i) 2298.93 sq.cm (ii) 2118.93 sq.cm (iii) 2038.93 sq.cm (iv) 1808.93 sq.cm (v) 1978.93 sq.cm

5. If the vertical height of a cone is 9.00 cm and volume is 462.00 cu.cm, its slant height is



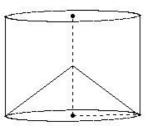
(i) 16.40 cm (ii) 8.40 cm (iii) 6.40 cm (iv) 14.40 cm (v) 11.40 cm

6. If the volume of a sphere is 11498.67 cu.cm, its T.S.A is



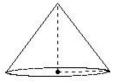
(i) 2314.00 sq.cm (ii) 2644.00 sq.cm (iii) 2464.00 sq.cm (iv) 2624.00 sq.cm (v) 2284.00 sq.cm

7. From a solid cylinder of height 12.00 cm and base radius 8.00 cm, a conical cavity of height 6.00 cm and base radius 8.00 cm is drilled out. Find the volume of the resulting solid



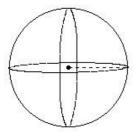
(i) 2261.43 cu.cm (ii) 2011.43 cu.cm (iii) 2171.43 cu.cm (iv) 1991.43 cu.cm (v) 1771.43 cu.cm

8. If the base radius of a cone is 6.00 cm and L.S.A is 188.57 sq.cm, its T.S.A is



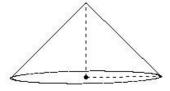
(i) 277.71 sq.cm (ii) 296.71 sq.cm (iii) 313.71 sq.cm (iv) 301.71 sq.cm (v) 328.71 sq.cm

9. If the T.S.A of a sphere is 616.00 sq.cm, its volume is



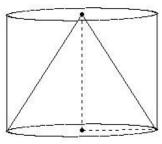
(i) 1437.33 cu.cm (ii) 1297.33 cu.cm (iii) 1607.33 cu.cm (iv) 1557.33 cu.cm (v) 1287.33 cu.cm

10. If the slant height of a cone is 12.73 cm and vertical height is 9.00 cm, its T.S.A is



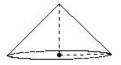
(i) 614.65 sq.cm (ii) 629.65 sq.cm (iii) 601.65 sq.cm (iv) 627.65 sq.cm (v) 606.65 sq.cm

11. From a circular cylinder of diameter 18.00 cm and height 14.00 cm, a conical cavity of the same base radius and of the same height is hollowed out. Find the total surface area of the remaining solid.



(i) 1657.25 sq.cm (ii) 1387.25 sq.cm (iii) 1437.25 sq.cm (iv) 1517.25 sq.cm (v) 1697.25 sq.cm

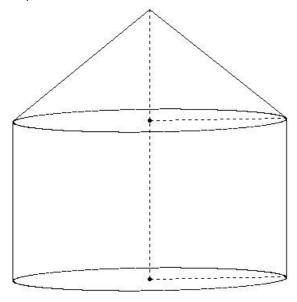
12. If the base radius of a cone is 6.00 cm and vertical height is 6.00 cm, its L.S.A. is



(i) 175.10 sq.cm (ii) 177.10 sq.cm (iii) 154.10 sq.cm (iv) 138.10 sq.cm (v) 160.10 sq.cm

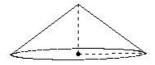
A tent is in the form of a cylinder surmounted by a cone., The height of the tent above the ground is 34 m and

13. the height of the cylindrical part is 20.00 m. If the diameter of the base is 34.00 m, find the quantity of canvas required to make the tent. Allow 16% extra for folds and for stitching.



(i) 4063.82 sq.m (ii) 4023.82 sq.m (iii) 3843.82 sq.m (iv) 3583.82 sq.m (v) 3813.82 sq.m

14. If the base radius of a cone is 8.00 cm and volume is 402.29 cu.cm, its base area is

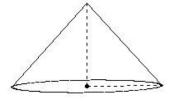


(i) 215.14 sq.cm (ii) 201.14 sq.cm (iii) 189.14 sq.cm (iv) 208.14 sq.cm (v) 184.14 sq.cm

An ice cream container has the shape of a right circular cylinder having inner diameter 36.00 cm and height 15. 42.00 cm . The ice cream is filled into cones of diameter 14.00 cm and height 19.00 cm , having a hemispherical shape on the top. Find the number of such complete cones which can be filled with ice cream

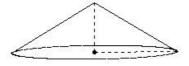
(i) 22 (ii) 25 (iii) 20 (iv) 28 (v) 30

16. If the slant height of a cone is 13.45 cm and vertical height is 10.00 cm, its volume is



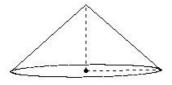
(i) 872.57 cu.cm (ii) 832.57 cu.cm (iii) 825.57 cu.cm (iv) 848.57 cu.cm (v) 860.57 cu.cm

17. If the slant height of a cone is 11.66 cm and T.S.A is 680.74 sq.cm, its volume is



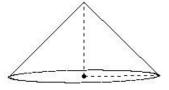
(i) 641.57 cu.cm (ii) 612.57 cu.cm (iii) 642.57 cu.cm (iv) 616.57 cu.cm (v) 628.57 cu.cm

18. If the base radius of a cone is 9.00 cm and L.S.A is 340.56 sq.cm, its vertical height is



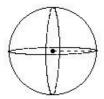
(i) 10.00 cm (ii) 9.00 cm (iii) 6.00 cm (iv) 8.00 cm (v) 7.00 cm

19. If the slant height of a cone is 12.73 cm and vertical height is 9.00 cm, its base area is



(i) 267.57 sq.cm (ii) 226.57 sq.cm (iii) 260.57 sq.cm (iv) 250.57 sq.cm (v) 254.57 sq.cm

20. If the L.S.A of a sphere is 314.29 sq.cm, its T.S.A is



(i) 314.29 sq.cm (ii) 341.29 sq.cm (iii) 319.29 sq.cm (iv) 302.29 sq.cm (v) 288.29 sq.cm

A hollow metallic cylindrical tube has an internal radius of 7.00 cm and height 20.00 cm. The thickness of the 21. metal is 2.5 cm .The tube is melted to cast into a right circular cone of height 14.00 cm. Find the radius of the cone.

(i) 10.30 cm (ii) 8.30 cm (iii) 18.30 cm (iv) 13.30 cm (v) 16.30 cm

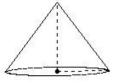
22. A hollow sphere of internal and external diameters 36.00 cm and 44.00 cm respectively is melted into a cone of base diameter 14.00 cm. Find the height of the cone

(i) 393.14 cm (ii) 367.14 cm (iii) 416.14 cm (iv) 381.14 cm (v) 395.14 cm

Marbles of diameter 1.00 cm are dropped into a cylindrical beaker containing some water. When they are fully 23. submerged, the water level rises by 2 cm. If the diameter of the beaker is 12.00 cm, find the number of marbles that are dropped in it

(i) 430 (ii) 432 (iii) 457 (iv) 448 (v) 415

24. If the base radius of a cone is 6.00 cm and slant height is 10.00 cm, its volume is



(i) 306.71 cu.cm (ii) 293.71 cu.cm (iii) 274.71 cu.cm (iv) 325.71 cu.cm (v) 301.71 cu.cm

A solid metallic cylinder of base radius 4.00 cm and height 30.00 cm is melted to form cones each of height 1.00 cm and radius 1.00 cm . Find the number of complete cones formed

(i) 1300 (ii) 1690 (iii) 1440 (iv) 1370 (v) 1470

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

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