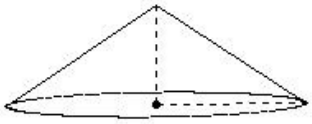
EduSahara™ Worksheet

Name : Chapter Based Worksheet

Chapter : Cone and Sphere

Grade : ICSE Grade X

1. If the slant height of a cone is 10.82 cm and T.S.A is 560.62 sq.cm, its L.S.A. is

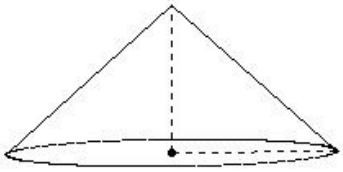


(i) 292.05 sq.cm (ii) 308.05 sq.cm (iii) 329.05 sq.cm (iv) 301.05 sq.cm (v) 306.05 sq.cm

2. The surface area of a solid metallic sphere is 4538.29 sq.cm. It is melted and recasted into solid right circular cones of radius 7.60 cm and height 5.70 cm . Find the number of complete cones that can be made

(i) 88 (ii) 78 (iii) 80 (iv) 86 (v) 83

3. If the base radius of a cone is 10.00 cm and volume is 942.86 cu.cm, its T.S.A is

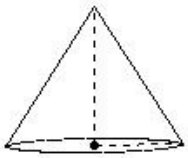


(i) 725.00 sq.cm (ii) 753.00 sq.cm (iii) 737.00 sq.cm (iv) 750.00 sq.cm

4. Metallic spheres of radii 15.00 cm, 14.00 cm are melted to form a single solid sphere. Find the radius of the resulting sphere.

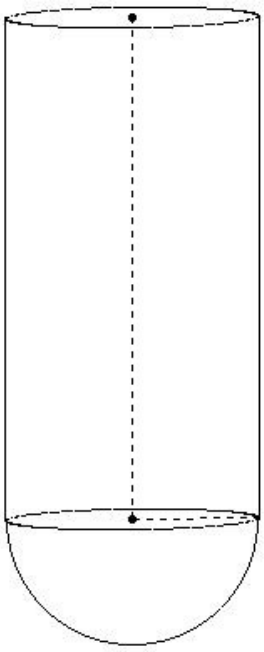
(i) $\sqrt[3]{6119}$ cm (ii) $\sqrt[3]{6116}$ cm (iii) 6119 cm (iv) $\sqrt[3]{6122}$ cm (v) $\sqrt[5]{6119}$ cm

5. If the base radius of a cone is 5.00 cm and slant height is 9.43 cm, its L.S.A. is



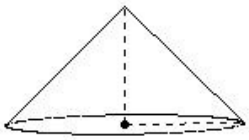
(i) 146.19 sq.cm (ii) 131.19 sq.cm (iii) 164.19 sq.cm (iv) 163.19 sq.cm (v) 148.19 sq.cm

6. A solid consists of a cylinder with one hemispherical end with length 30.00 cm and diameter 15.00 cm. Find the total surface area of the solid



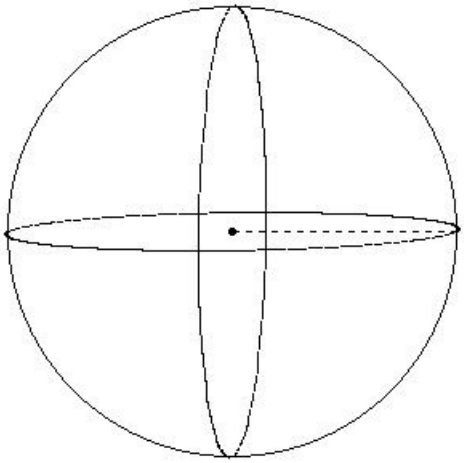
(i) 2094.64 sq.cm (ii) 1964.64 sq.cm (iii) 1764.64 sq.cm (iv) 1944.64 sq.cm (v) 1914.64 sq.cm

7. If the base radius of a cone is 7.00 cm and vertical height is 7.00 cm, its slant height is



(i) 8.90 cm (ii) 10.90 cm (iii) 9.90 cm (iv) 11.90 cm (v) 7.90 cm

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

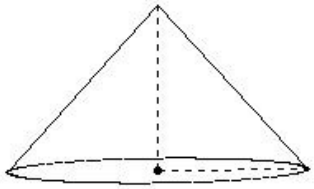


(i) 2534.00 sq.cm (ii) 2704.00 sq.cm (iii) 2344.00 sq.cm (iv) 2384.00 sq.cm (v) 2464.00 sq.cm

9. A metallic sphere of radius 17.00 cm is melted to recast into the shape of a cylinder of radius 18.00 cm . Find the height of the cylinder.

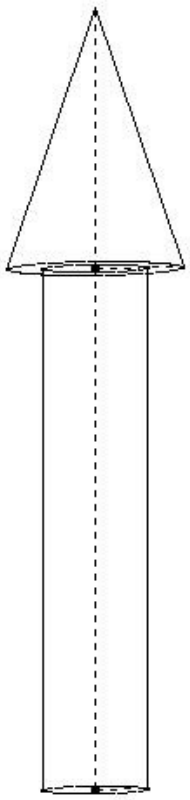
(i) 17.22 cm (ii) 20.22 cm (iii) 25.22 cm (iv) 15.22 cm (v) 23.22 cm

10. If the base radius of a cone is 9.00 cm and vertical height is 10.00 cm, its volume is



(i) 866.57 cu.cm (ii) 848.57 cu.cm (iii) 850.57 cu.cm (iv) 831.57 cu.cm (v) 825.57 cu.cm

11. A wooden toy rocket is in the shape of a cone mounted on a cylinder. The height of the conical part is 15.00 cm , while the height of the cylindrical part is 30.00 cm. The base of the conical portion has a diameter of 10.00 cm while the base diameter of the cylindrical portion is 6.00 cm. If the conical portion is painted with white and cylindrical portion with black, find the area of the rocket painted with each of these colors



(i) $\text{white area} = 300.73 \text{ sq.cm}, \text{black area} = 596.00 \text{ sq.cm}$

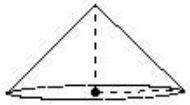
(ii) $\text{white area} = 296.73 \text{ sq.cm}, \text{black area} = 592.00 \text{ sq.cm}$

(iii) $\text{white area} = 298.73 \text{ sq.cm}, \text{black area} = 594.00 \text{ sq.cm}$

(iv) $\text{white area} = 299.73 \text{ sq.cm}, \text{black area} = 595.00 \text{ sq.cm}$

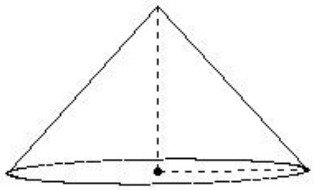
(v) $\text{white area} = 297.73 \text{ sq.cm}, \text{black area} = 593.00 \text{ sq.cm}$

12. If the vertical height of a cone is 5.00 cm and volume is 130.95 cu.cm, its L.S.A. is



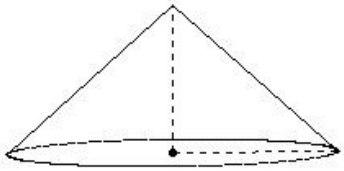
(i) 114.10 sq.cm (ii) 85.10 sq.cm (iii) 126.10 sq.cm (iv) 111.10 sq.cm (v) 109.10 sq.cm

13. If the slant height of a cone is 13.45 cm and T.S.A is 635.01 sq.cm, its vertical height is



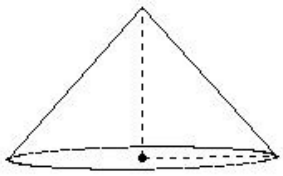
(i) 5.00 cm (ii) 7.00 cm (iii) 10.00 cm (iv) 15.00 cm (v) 13.00 cm

14. If the slant height of a cone is 13.45 cm and L.S.A is 422.71 sq.cm, its base radius is



(i) 5.00 cm (ii) 15.00 cm (iii) 13.00 cm (iv) 10.00 cm (v) 7.00 cm

15. If the base radius of a cone is 8.00 cm and volume is 603.43 cu.cm, its slant height is



(i) 7.04 cm (ii) 15.04 cm (iii) 9.04 cm (iv) 12.04 cm (v) 17.04 cm

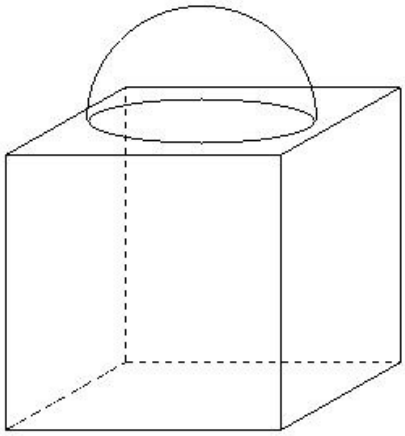
16. A cone of maximum volume is carved out of a cube of edge 9.00 cm. Find the volume of the cone

(i) 190.93 cu.cm (ii) 183.93 cu.cm (iii) 218.93 cu.cm (iv) 172.93 cu.cm (v) 205.93 cu.cm

17. A cylindrical vessel of base radius 11.00 cm contains water . A solid sphere of radius 5.00 cm is immersed completely in the water. Find the rise in the water level in the vessel

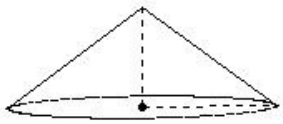
(i) 0.38 cm (ii) 9.38 cm (iii) 3.38 cm (iv) 2.38 cm (v) 1.38 cm

18. If two solids, a cube and a hemisphere are combined such that the base of the block is a cube with edge 17.00 cm and the hemisphere fixed on the top has a diameter of 14.00 cm, find the total surface area of the block.



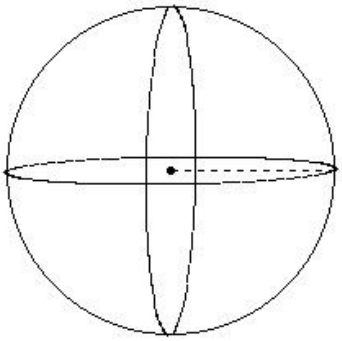
(i) 1608.00 sq.cm (ii) 1808.00 sq.cm (iii) 2028.00 sq.cm (iv) 1888.00 sq.cm

19. If the vertical height of a cone is 6.00 cm and volume is 402.29 cu.cm, its slant height is



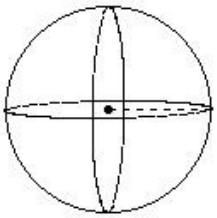
(i) 15.00 cm (ii) 10.00 cm (iii) 13.00 cm (iv) 5.00 cm (v) 7.00 cm

20. If the radius of a sphere is 10.00 cm, its L.S.A is



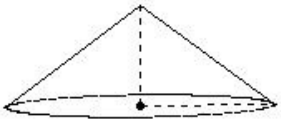
(i) 977.14 sq.cm (ii) 1207.14 sq.cm (iii) 1527.14 sq.cm (iv) 1257.14 sq.cm (v) 1417.14 sq.cm

21. If the T.S.A of a sphere is 452.57 sq.cm, its radius is



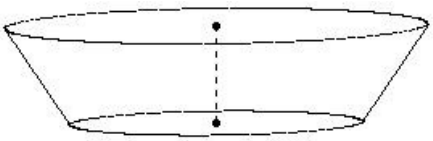
(i) 6.00 cm (ii) 7.00 cm (iii) 5.00 cm (iv) 8.00 cm (v) 4.00 cm

22. If the base radius of a cone is 8.00 cm and L.S.A is 251.43 sq.cm, its volume is



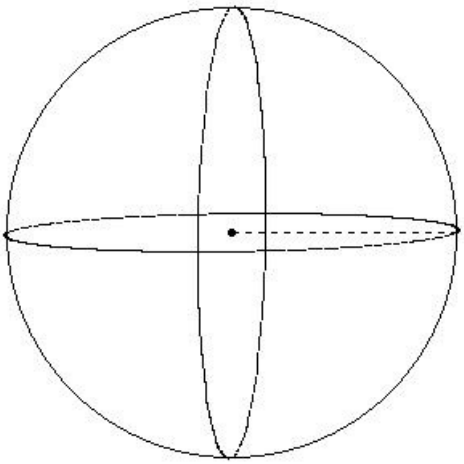
(i) 398.29 cu.cm (ii) 420.29 cu.cm (iii) 402.29 cu.cm (iv) 419.29 cu.cm (v) 378.29 cu.cm

23. The radii of the ends of a frustum of a right circular cone 6.00 cm high are 13.00 cm and 9.00 cm. Its volume is



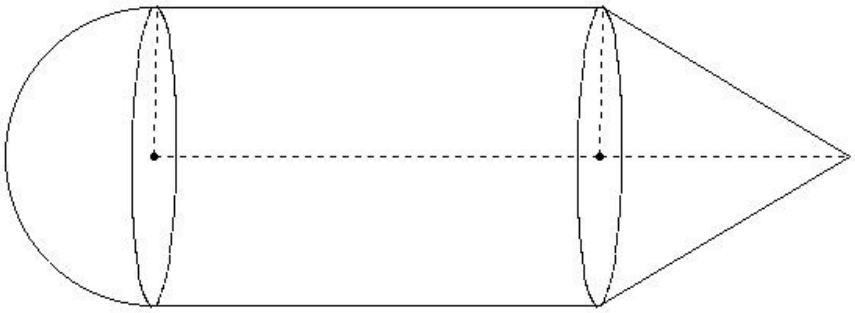
(i) 2236.86 cu.cm (ii) 2306.86 cu.cm (iii) 2356.86 cu.cm (iv) 2126.86 cu.cm (v) 2426.86 cu.cm

24. If the radius of a sphere is 14.00 cm, its volume is



(i) 12898.67 cu.cm (ii) 12198.67 cu.cm (iii) 11498.67 cu.cm (iv) 9798.67 cu.cm (v) 9998.67 cu.cm

25. A solid consists of a right circular cylinder with a hemisphere on one end and a cone on the other . The radius and height of the cylindrical part are 9.50 cm and 28.50 cm respectively. The radii of the hemispherical and conical parts are the same as that of the cylindrical part. Calculate the volume of the solid, if the height of the conical part is 16.00 cm



(i) 10092.99 cu.cm (ii) 11392.99 cu.cm (iii) 13192.99 cu.cm (iv) 11992.99 cu.cm

Assignment Key

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