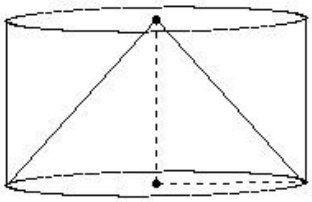
EduSahara™ Worksheet

Name : Chapter Based Worksheet

Chapter : Surface Areas and Volumes

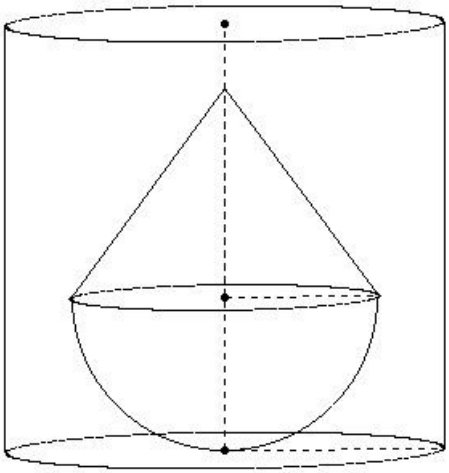
Grade : CBSE Grade X

1. From a circular cylinder of diameter 18.00 cm and height 10.00 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.



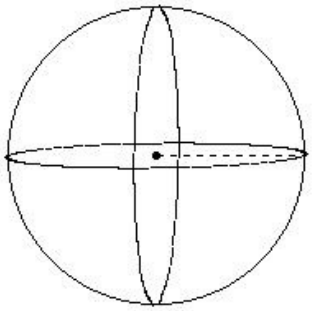
(i) 1130.73 sq.cm (ii) 980.73 sq.cm (iii) 1360.73 sq.cm (iv) 1470.73 sq.cm (v) 1200.73 sq.cm

2. A solid consisting of a right circular cone, standing on a hemisphere is placed upright, in a right circular cylinder full of water and touches the bottom. The radius of the cylinder is 13.50 cm and height is 26.50 cm. The radius of the hemisphere is 9.50 cm and the height of the cone is 13.00 cm. Find the volume of water left in the cylinder.



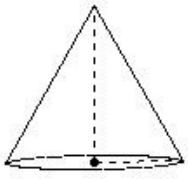
(i) 12153.30 cu.cm (ii) 9653.30 cu.cm (iii) 14453.30 cu.cm (iv) 11353.30 cu.cm (v) 12553.30 cu.cm

3. If the radius of a sphere is 9.00 cm, its T.S.A is



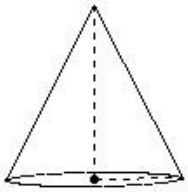
(i) 1018.29 sq.cm (ii) 998.29 sq.cm (iii) 1238.29 sq.cm (iv) 888.29 sq.cm (v) 1088.29 sq.cm

4. If the base radius of a cone is 5.00 cm and L.S.A is 161.86 sq.cm, its T.S.A is



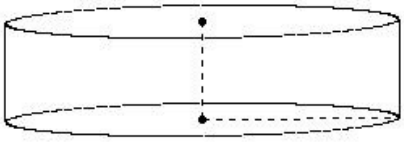
(i) 228.43 sq.cm (ii) 232.43 sq.cm (iii) 245.43 sq.cm (iv) 240.43 sq.cm (v) 253.43 sq.cm

5. If the base radius of a cone is 5.00 cm and slant height is 11.18 cm, its L.S.A. is



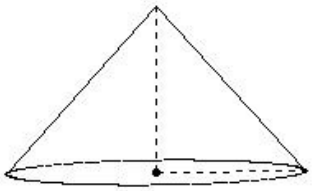
(i) 175.69 sq.cm (ii) 147.69 sq.cm (iii) 161.69 sq.cm (iv) 193.69 sq.cm (v) 192.69 sq.cm

6. If the height of a cylinder is 6.00 cm and base area is 452.57 sq.cm, its radius is



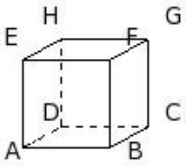
(i) 17.00 cm (ii) 7.00 cm (iii) 12.00 cm (iv) 15.00 cm (v) 9.00 cm

7. If the base radius of a cone is 9.00 cm and volume is 848.57 cu.cm, its vertical height is



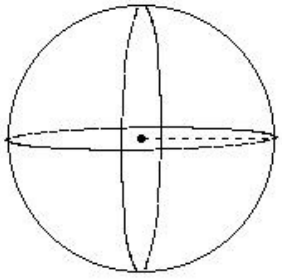
(i) 13.00 cm (ii) 5.00 cm (iii) 15.00 cm (iv) 10.00 cm (v) 7.00 cm

8. If the T.S.A of a cube is 150.00 sq.cm, its L.S.A is



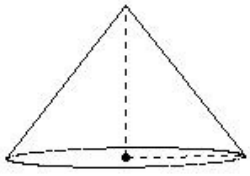
(i) 94.00 sq.cm (ii) 72.00 sq.cm (iii) 125.00 sq.cm (iv) 107.00 sq.cm (v) 100.00 sq.cm

9. If the L.S.A of a sphere is 804.57 sq.cm, its volume is



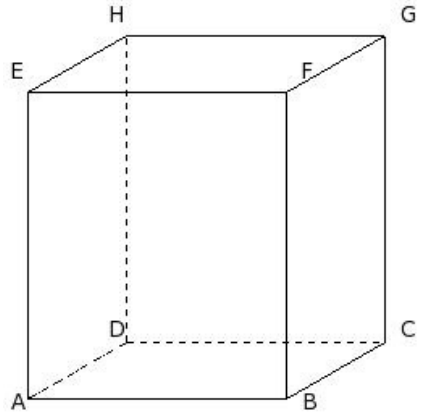
(i) 2385.52 cu.cm (ii) 1895.52 cu.cm (iii) 2105.52 cu.cm (iv) 2175.52 cu.cm (v) 2145.52 cu.cm

10. If the base radius of a cone is 7.00 cm and T.S.A is 404.80 sq.cm, its vertical height is



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

11. If the breadth, height and L.S.A of a cuboid are 14.00 cm, 19.00 cm and 1140.00 sq.cm respectively, its T.S.A is

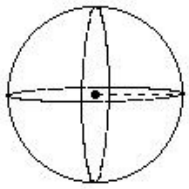


(i) 1368.00 sq.cm (ii) 1518.00 sq.cm (iii) 1728.00 sq.cm (iv) 1588.00 sq.cm (v) 1648.00 sq.cm

12. A copper rod of diameter 1.80 cm and length 4.00 cm is drawn into a wire of length 116.64 m of uniform thickness. Find the thickness of the wire.

(i) $\frac{1}{20}$ cm (ii) $\frac{1}{15}$ cm (iii) $\frac{1}{60}$ cm (iv) 0 cm (v) $\frac{1}{30}$ cm

13. If the volume of a sphere is 523.81 cu.cm, its T.S.A is

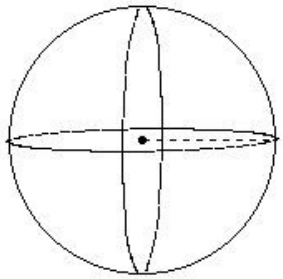


(i) 289.29 sq.cm (ii) 314.29 sq.cm (iii) 327.29 sq.cm (iv) 306.29 sq.cm (v) 338.29 sq.cm

14. A cone of maximum volume is carved out of a cube of edge 22.00 cm. Find the volume of the cone

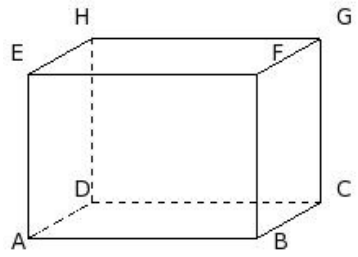
(i) 2788.76 cu.cm (ii) 2968.76 cu.cm (iii) 2838.76 cu.cm (iv) 2608.76 cu.cm (v) 2618.76 cu.cm

15. If the L.S.A of a sphere is 804.57 sq.cm, its radius is



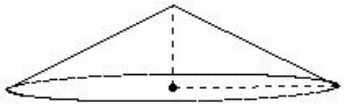
(i) 10.00 cm (ii) 7.00 cm (iii) 6.00 cm (iv) 8.00 cm (v) 9.00 cm

16. If the length, height and volume of a cuboid are 14.00 cm, 10.00 cm and 1260.00 cu.cm respectively, its T.S.A is



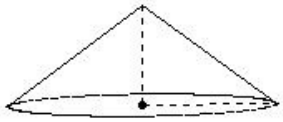
(i) 699.00 sq.cm (ii) 685.00 sq.cm (iii) 712.00 sq.cm (iv) 724.00 sq.cm (v) 740.00 sq.cm

17. If the base radius of a cone is 10.00 cm and vertical height is 5.00 cm, its T.S.A is



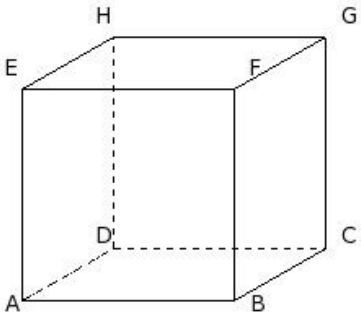
(i) 679.66 sq.cm (ii) 665.66 sq.cm (iii) 652.66 sq.cm (iv) 659.66 sq.cm (v) 673.66 sq.cm

18. If the slant height of a cone is 10.00 cm and L.S.A is 251.43 sq.cm, its base area is



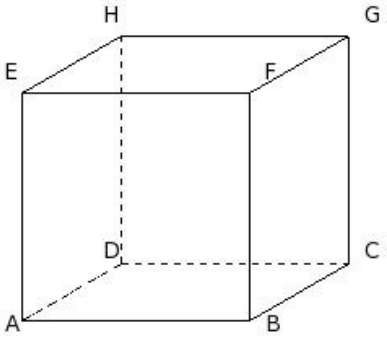
(i) 175.14 sq.cm (ii) 226.14 sq.cm (iii) 201.14 sq.cm (iv) 218.14 sq.cm (v) 187.14 sq.cm

19. If the volume of a cube is 2197.00 cu.cm, its side is



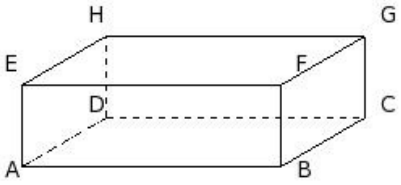
(i) 16.00 cm (ii) 13.00 cm (iii) 8.00 cm (iv) 10.00 cm (v) 18.00 cm

20. If the volume of a cube is 2744.00 cu.cm, its L.S.A is



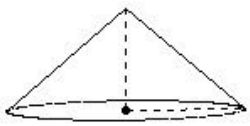
(i) 801.00 sq.cm (ii) 784.00 sq.cm (iii) 756.00 sq.cm (iv) 809.00 sq.cm (v) 768.00 sq.cm

21. If the length, height and T.S.A of a cuboid are 16.00 cm, 5.00 cm and 664.00 sq.cm respectively, its L.S.A is



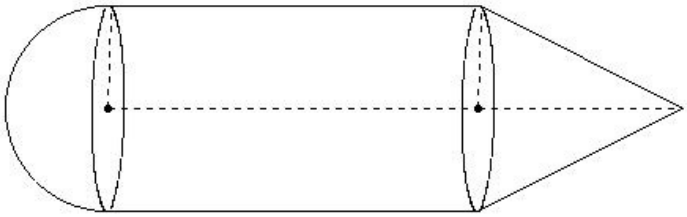
(i) 275.00 sq.cm (ii) 257.00 sq.cm (iii) 280.00 sq.cm (iv) 283.00 sq.cm (v) 304.00 sq.cm

22. If the base radius of a cone is 7.00 cm and T.S.A is 356.84 sq.cm, its base area is



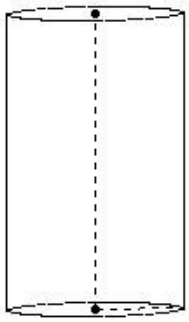
(i) 154.00 sq.cm (ii) 137.00 sq.cm (iii) 138.00 sq.cm (iv) 169.00 sq.cm (v) 166.00 sq.cm

23. 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 6.50 cm and 23.50 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 13.00 cm



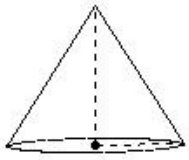
(i) 4271.27 cu.cm (ii) 4291.27 cu.cm (iii) 4401.27 cu.cm (iv) 4211.27 cu.cm (v) 4041.27 cu.cm

24. If the height of a cylinder is 17.00 cm and base area is 78.57 sq.cm, its L.S.A. is



(i) 519.29 sq.cm (ii) 537.29 sq.cm (iii) 506.29 sq.cm (iv) 534.29 sq.cm (v) 551.29 sq.cm

25. If the base radius of a cone is 5.00 cm and slant height is 9.43 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

Assignment Key

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