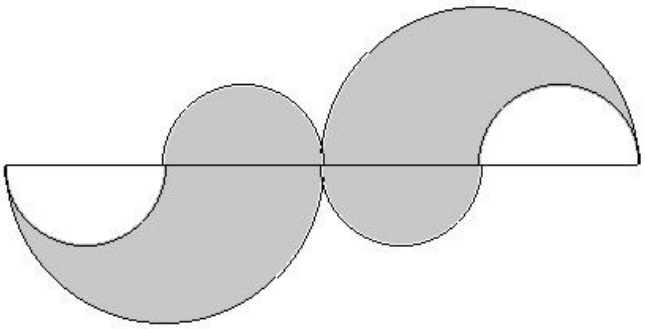
EduSahara™ Worksheet

Name : Chapter Based Worksheet

Chapter : Circumference and Area of a Circle

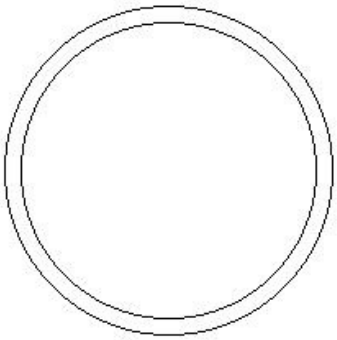
Grade : ICSE Grade X

1. The given figure consists of four small semi-circles of equal radii and two big semi-circles of equal radii. The radius of each big semi-circle is 10.00 cm which is the same as the diameter of the small semi-circle. Find the area of the shaded region



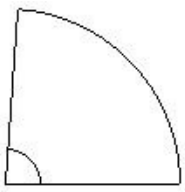
(i) 329.29 sq.cm (ii) 301.29 sq.cm (iii) 332.29 sq.cm (iv) 308.29 sq.cm (v) 314.29 sq.cm

2. If the width of the ring is 1.00 cm and outer radius is 10.00 cm, the outer circle area is



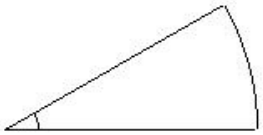
(i) 314.29 sq.cm (ii) 292.29 sq.cm (iii) 316.29 sq.cm (iv) 330.29 sq.cm (v) 301.29 sq.cm

3. If the length of the arc of a sector is 15.02 cm and the area of the circle is 314.29 sq.cm, the angle subtended at the center by the arc of the sector is



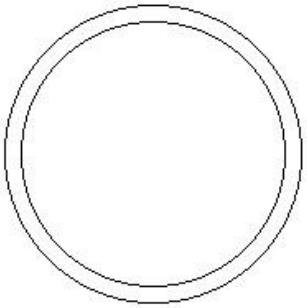
(i) 83.00° (ii) 91.00° (iii) 81.00° (iv) 86.00° (v) 89.00°

4. If the area of a sector of a circle is 58.93 sq.cm and the length of the arc of the sector is 7.86 cm, the angle subtended at the center by the arc of the sector is



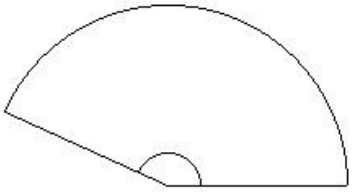
(i) 30.00° (ii) 33.00° (iii) 35.00° (iv) 25.00° (v) 27.00°

5. If the inner and outer radii of a ring are 8.00 cm and 9.00 cm respectively, the width of the ring is



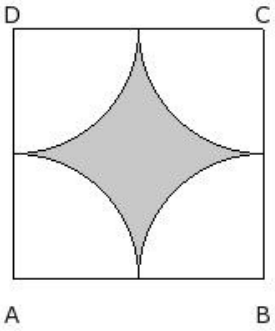
(i) 3.00 cm (ii) 2.00 cm (iii) 9.00 cm (iv) 0.00 cm (v) 1.00 cm

6. If the length of the arc of a sector is 29.96 cm and the angle subtended at the center by the arc of the sector is 156.00°, the area of the circle is



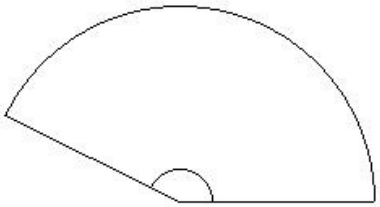
(i) 356.29 sq.cm (ii) 387.29 sq.cm (iii) 393.29 sq.cm (iv) 362.29 sq.cm (v) 380.29 sq.cm

7. In the given figure, ABCD is a square of side 15.00 cm and A, B, C, D are the centres of circular arcs, each of radius 7.50 cm. Find the area of the shaded region



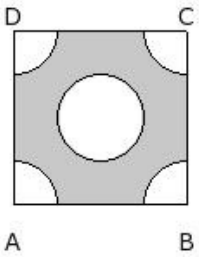
(i) 45.21 sq.cm (ii) 51.21 sq.cm (iii) 53.21 sq.cm (iv) 48.21 sq.cm (v) 43.21 sq.cm

8. If the length of the arc of a sector is 32.27 cm and the angle subtended at the center by the arc of the sector is 154.00°, the perimeter of the sector is



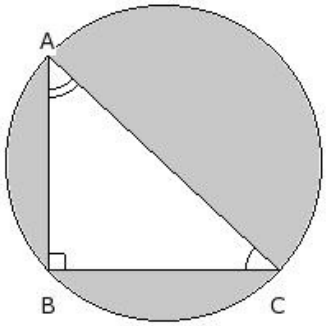
(i) 61.27 cm (ii) 56.27 cm (iii) 53.27 cm (iv) 51.27 cm (v) 59.27 cm

9. In the given figure, ABCD is a square of side 10.00 cm . At the centre there is a circle with radius 2.50 cm and the same circle quadrants are at the four corners. Find the area of the shaded region.



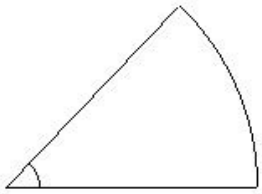
(i) 63.71 sq.cm (ii) 60.71 sq.cm (iii) 57.71 sq.cm (iv) 65.71 sq.cm (v) 55.71 sq.cm

10. In the given figure, BC = 14 cm and AB = 13 cm. Find the area of the shaded region



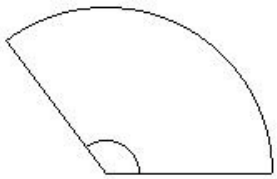
(i) 195.79 sq.cm (ii) 179.79 sq.cm (iii) 213.79 sq.cm (iv) 171.79 sq.cm (v) 212.79 sq.cm

11. If the radius of a circle is 15.00 cm and the perimeter of a sector is 42.05 cm, the angle subtended at the center by the arc of the sector is



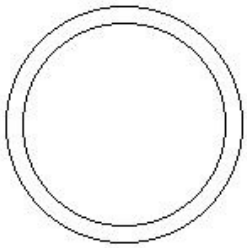
(i) 49.00° (ii) 51.00° (iii) 43.00° (iv) 46.00° (v) 41.00°

12. If the area of a sector of a circle is 110.87 sq.cm and the area of the circle is 314.29 sq.cm, the length of the arc of the sector is



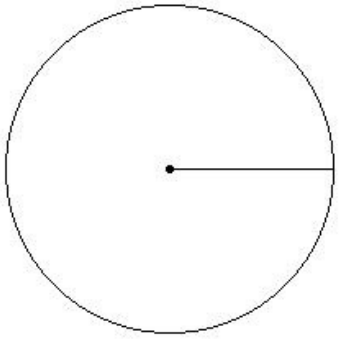
(i) 22.18 cm (ii) 19.18 cm (iii) 25.18 cm (iv) 27.18 cm (v) 17.18 cm

13. If the inner radius of the ring is 6.00 cm and area of the ring is 40.86 sq.cm, the inner circle area is



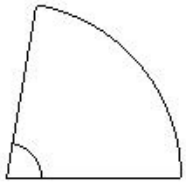
(i) 91.14 sq.cm (ii) 115.14 sq.cm (iii) 138.14 sq.cm (iv) 113.14 sq.cm (v) 96.14 sq.cm

14. If circumference of the circle is 62.86 cm, the radius of the circle is



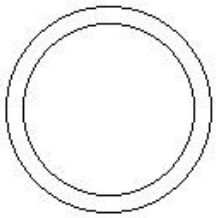
(i) 15.00 cm (ii) 7.00 cm (iii) 13.00 cm (iv) 10.00 cm (v) 5.00 cm

15. If the length of the arc of a sector is 13.97 cm and the area of the circle is 314.29 sq.cm, the perimeter of the circle is



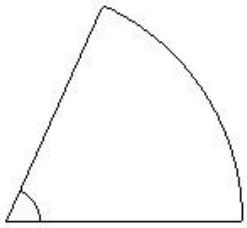
(i) 59.86 cm (ii) 62.86 cm (iii) 65.86 cm (iv) 67.86 cm (v) 57.86 cm

16. If the area of the inner circle of the ring is 78.57 sq.cm and area of outer circle is 113.14 sq.cm, the outer circle radius is



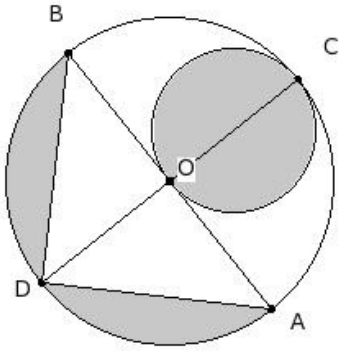
(i) 8.00 cm (ii) 7.00 cm (iii) 4.00 cm (iv) 6.00 cm (v) 5.00 cm

17. If the area of a sector of a circle is 112.93 sq.cm and the length of the arc of the sector is 16.13 cm, the perimeter of the sector is



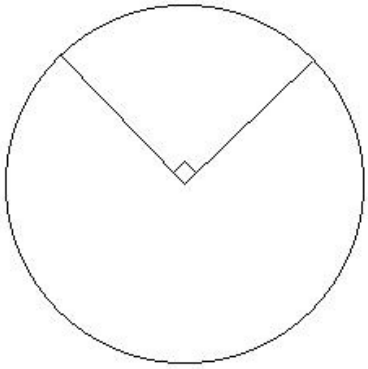
(i) 39.13 cm (ii) 41.13 cm (iii) 44.13 cm (iv) 47.13 cm (v) 49.13 cm

18. In the below figure, AB is the diameter of a circle with center O and OA = 10.00 cm . Find the area of the shaded region



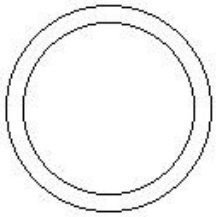
(i) 139.71 sq.cm (ii) 117.71 sq.cm (iii) 128.71 sq.cm (iv) 135.71 sq.cm (v) 162.71 sq.cm

19. In the given figure, the radius of the circle is 11 cm. Find the area of the minor sector



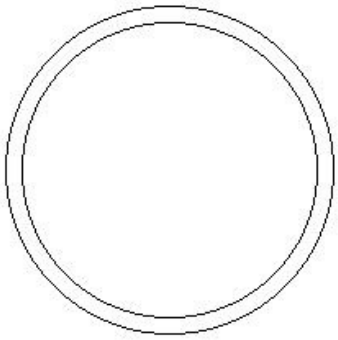
(i) 90.07 sq.cm (ii) 98.07 sq.cm (iii) 100.07 sq.cm (iv) 95.07 sq.cm (v) 92.07 sq.cm

20. If the area of the inner circle of the ring is 78.57 sq.cm and area of outer circle is 113.14 sq.cm, the area of the ring is



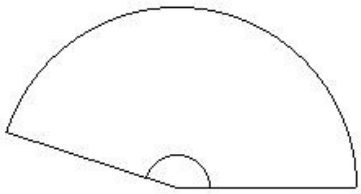
(i) 34.57 sq.cm (ii) 29.57 sq.cm (iii) 31.57 sq.cm (iv) 37.57 sq.cm (v) 39.57 sq.cm

21. If the width of the ring is 1.00 cm and inner radius is 9.00 cm, the outer circle area is



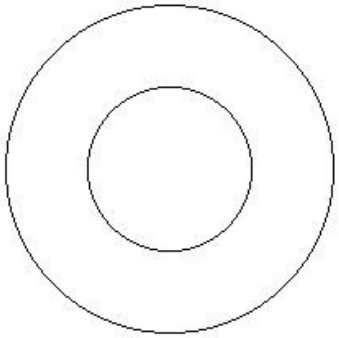
(i) 314.29 sq.cm (ii) 297.29 sq.cm (iii) 290.29 sq.cm (iv) 328.29 sq.cm (v) 321.29 sq.cm

22. If the length of the arc of a sector is 31.11 cm and the perimeter of the circle is 69.14 cm, the area of the circle is



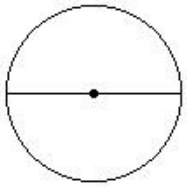
(i) 395.29 sq.cm (ii) 380.29 sq.cm (iii) 383.29 sq.cm (iv) 364.29 sq.cm (v) 373.29 sq.cm

23. If the width of the ring is 5.00 cm and inner radius is 5.00 cm, the outer circle radius is



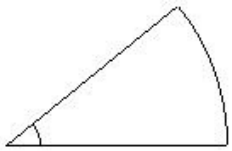
(i) 15.00 cm (ii) 5.00 cm (iii) 13.00 cm (iv) 7.00 cm (v) 10.00 cm

24. If diameter of the circle is 10.00 cm, the area of the circle is



(i) 83.57 sq.cm (ii) 75.57 sq.cm (iii) 78.57 sq.cm (iv) 73.57 sq.cm (v) 81.57 sq.cm

25. If the length of the arc of a sector is 8.85 cm and the angle subtended at the center by the arc of the sector is 39.00°, the area of the sector is



(i) 57.54 sq.cm (ii) 62.54 sq.cm (iii) 60.54 sq.cm (iv) 54.54 sq.cm (v) 52.54 sq.cm

Assignment Key

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