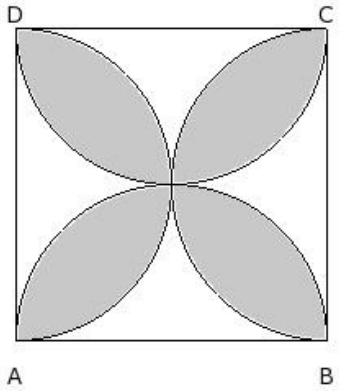
EduSahara™ Worksheet

Name : Chapter Based Worksheet

Chapter : Area Related to Circles

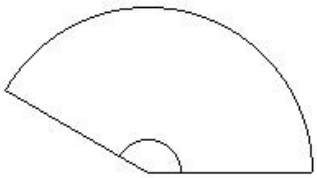
Grade : CBSE Grade X

1. In the given figure, ABCD is a square with side 19.00 cm. Find the area of the shaded region



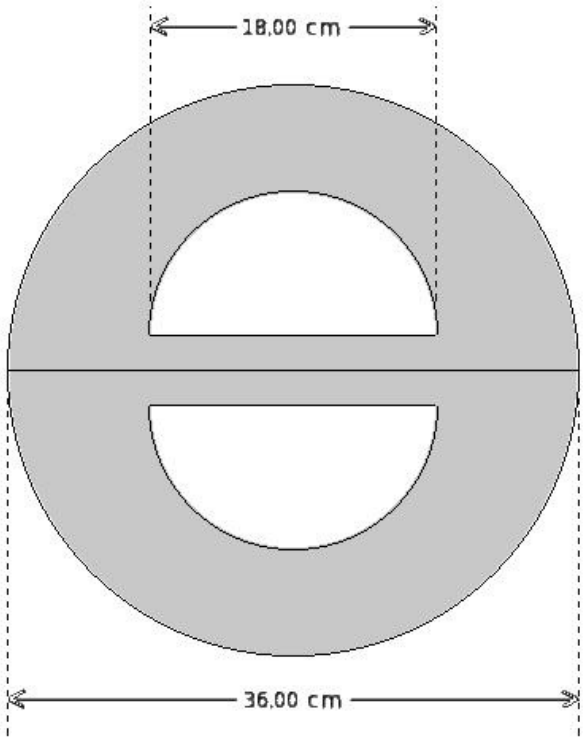
(i) 192.29 sq.cm (ii) 221.29 sq.cm (iii) 203.29 sq.cm (iv) 206.29 sq.cm (v) 234.29 sq.cm

2. If the radius of a circle is 10.00 cm and the perimeter of a sector is 46.19 cm, the area of the sector is



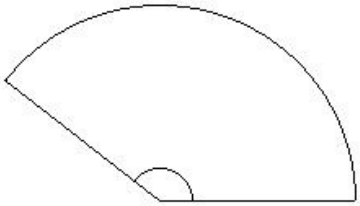
(i) 114.95 sq.cm (ii) 130.95 sq.cm (iii) 117.95 sq.cm (iv) 154.95 sq.cm (v) 138.95 sq.cm

3. In the given figure, find the area of the shaded region



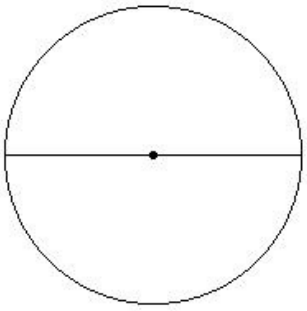
(i) 760.71 sq.cm (ii) 746.71 sq.cm (iii) 769.71 sq.cm (iv) 763.71 sq.cm (v) 778.71 sq.cm

4. If the radius of a circle is 12.00 cm and the area of a sector is 178.51 sq.cm, the perimeter of the sector is



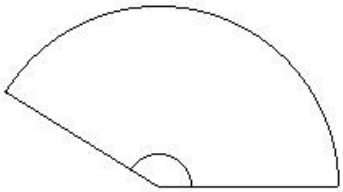
(i) 50.75 cm (ii) 56.75 cm (iii) 53.75 cm (iv) 48.75 cm (v) 58.75 cm

5. If circumference of the circle is 56.57 cm, the diameter of the circle is



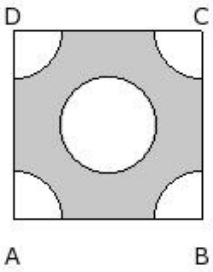
(i) 21.00 cm (ii) 23.00 cm (iii) 18.00 cm (iv) 15.00 cm (v) 13.00 cm

6. If the length of the arc of a sector is 28.42 cm and the perimeter of the circle is 69.14 cm, the perimeter of the sector is



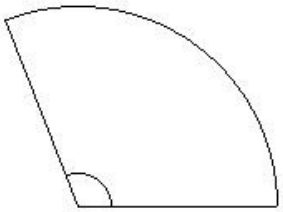
(i) 45.42 cm (ii) 55.42 cm (iii) 50.42 cm (iv) 53.42 cm (v) 47.42 cm

7. In the given figure, ABCD is a square of side 11.00 cm . At the centre there is a circle with radius 2.75 cm and the same circle quadrants are at the four corners. Find the area of the shaded region.



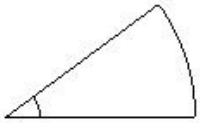
(i) 68.46 sq.cm (ii) 73.46 sq.cm (iii) 70.46 sq.cm (iv) 76.46 sq.cm (v) 78.46 sq.cm

8. If the area of a sector of a circle is 140.80 sq.cm and the area of the circle is 452.57 sq.cm, the perimeter of the sector is



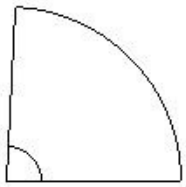
(i) 50.47 cm (ii) 47.47 cm (iii) 44.47 cm (iv) 52.47 cm (v) 42.47 cm

9. If the area of a sector of a circle is 38.03 sq.cm and the length of the arc of the sector is 6.91 cm, the perimeter of the sector is



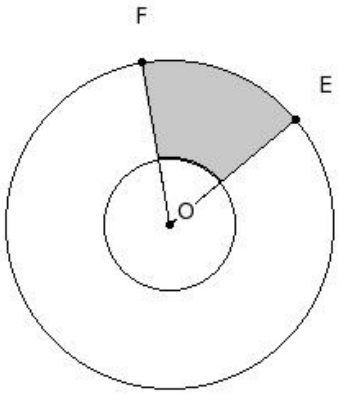
(i) 33.91 cm (ii) 25.91 cm (iii) 31.91 cm (iv) 28.91 cm (v) 23.91 cm

10. If the radius of a circle is 10.00 cm and the perimeter of a sector is 35.19 cm, the perimeter of the circle is



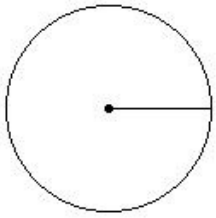
(i) 67.86 cm (ii) 62.86 cm (iii) 65.86 cm (iv) 57.86 cm (v) 59.86 cm

11. In the given figure, arcs of two concentric circles of radii 10.00 cm and 4.00 cm are drawn with center O. If ∠EOF = 60°, find the area of the shaded region



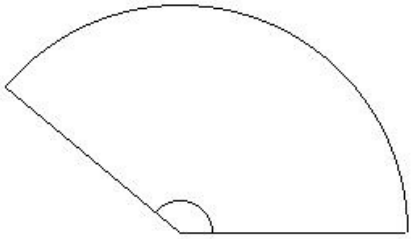
(i) 44.00 sq.cm (ii) 39.00 sq.cm (iii) 49.00 sq.cm (iv) 47.00 sq.cm (v) 41.00 sq.cm

12. If area of the circle is 113.14 sq.cm, the radius of the circle is



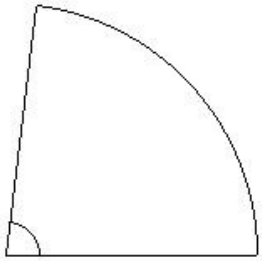
(i) 4.00 cm (ii) 5.00 cm (iii) 8.00 cm (iv) 6.00 cm (v) 7.00 cm

13. If the area of a sector of a circle is 239.56 sq.cm and the angle subtended at the center by the arc of the sector is 140.00°, the perimeter of the sector is



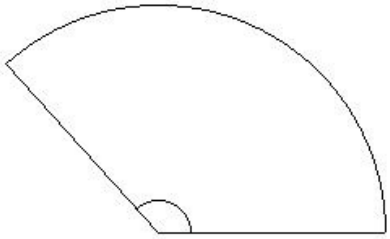
(i) 65.22 cm (ii) 57.22 cm (iii) 62.22 cm (iv) 59.22 cm (v) 67.22 cm

14. If the radius of a circle is 15.00 cm and the area of a sector is 163.04 sq.cm, the area of the circle is



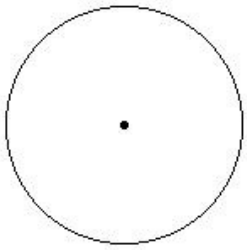
(i) 681.14 sq.cm (ii) 722.14 sq.cm (iii) 734.14 sq.cm (iv) 707.14 sq.cm (v) 689.14 sq.cm

15. If the radius of a circle is 14.00 cm and the angle subtended at the center by the arc of a sector is 132.00°, the length of the arc of the sector is



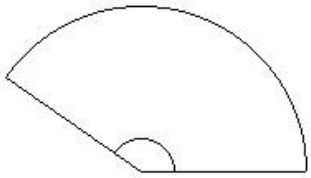
(i) 37.27 cm (ii) 29.27 cm (iii) 35.27 cm (iv) 27.27 cm (v) 32.27 cm

16. If area of the circle is 154.00 sq.cm, the area of the semicircle is



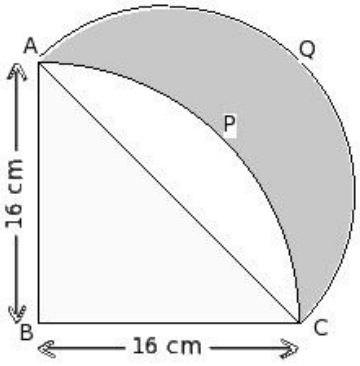
(i) 77.00 sq.cm (ii) 74.00 sq.cm (iii) 82.00 sq.cm (iv) 72.00 sq.cm (v) 80.00 sq.cm

17. If the radius of a circle is 10.00 cm and the angle subtended at the center by the arc of a sector is 145.00°, the area of the circle is



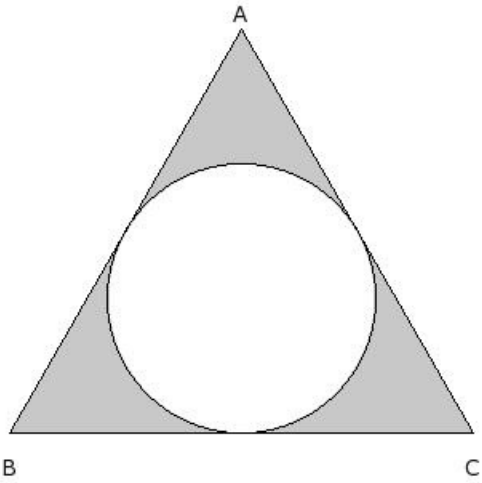
(i) 329.29 sq.cm (ii) 326.29 sq.cm (iii) 302.29 sq.cm (iv) 314.29 sq.cm (v) 301.29 sq.cm

18. In the below figure, BCPA is a quadrant of a circle. BC = 16.00 cm and CQA is a semicircle with CA as the diameter. Find the area of the shaded region



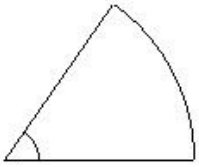
(i) 143.00 sq.cm (ii) 141.00 sq.cm (iii) 110.00 sq.cm (iv) 128.00 sq.cm

19. In the given figure, a circle is inscribed touching the sides of an equilateral triangle of side 29 cm. Find the area of the shaded region



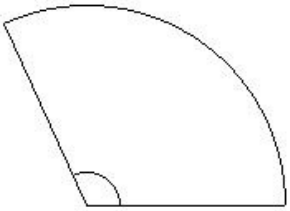
(i) 156.90 sq.cm (ii) 143.90 sq.cm (iii) 129.90 sq.cm (iv) 135.90 sq.cm (v) 145.90 sq.cm

20. If the length of the arc of a sector is 10.56 cm and the area of the circle is 380.29 sq.cm, the perimeter of the sector is



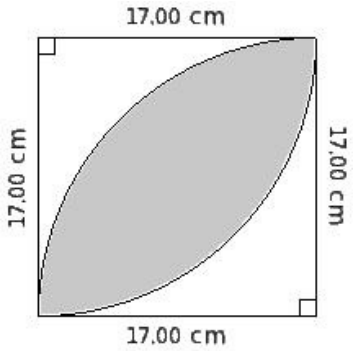
(i) 27.56 cm (ii) 32.56 cm (iii) 35.56 cm (iv) 37.56 cm (v) 29.56 cm

21. If the radius of a circle is 12.00 cm and the length of the arc of a sector is 24.10 cm, the area of the circle is



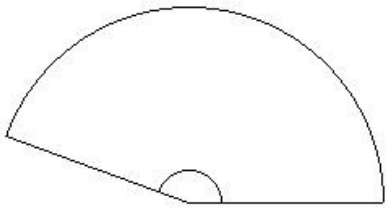
(i) 452.57 sq.cm (ii) 460.57 sq.cm (iii) 426.57 sq.cm (iv) 437.57 sq.cm (v) 480.57 sq.cm

22. Find the area of the shaded region in the given figure common between the two quadrants of circles of radius 17.00 cm each



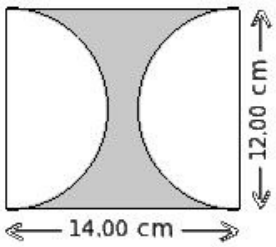
(i) 192.14 sq.cm (ii) 148.14 sq.cm (iii) 147.14 sq.cm (iv) 181.14 sq.cm (v) 165.14 sq.cm

23. If the length of the arc of a sector is 33.52 cm and the perimeter of the circle is 75.43 cm, the angle subtended at the center by the arc of the sector is



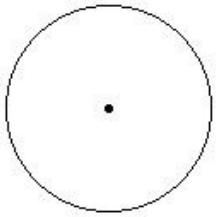
(i) 135.00° (ii) 142.00° (iii) 178.00° (iv) 163.00° (v) 160.00°

24. Find the area of the shaded region



(i) 54.86 sq.cm (ii) 49.86 sq.cm (iii) 59.86 sq.cm (iv) 51.86 sq.cm (v) 57.86 sq.cm

25. If circumference of the circle is 37.71 cm, the area of the circle is



(i) 90.14 sq.cm (ii) 128.14 sq.cm (iii) 109.14 sq.cm (iv) 137.14 sq.cm (v) 113.14 sq.cm

Assignment Key

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