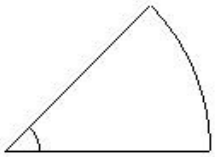
EduSahara™ Worksheet

Name : Chapter Based Worksheet

Chapter : Area Related to Circles

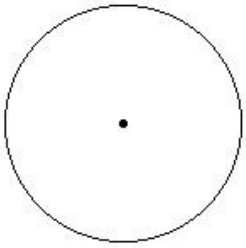
Grade : CBSE Grade X

1. If the length of the arc of a sector is 9.43 cm and the angle subtended at the center by the arc of the sector is 45.00°, the perimeter of the circle is



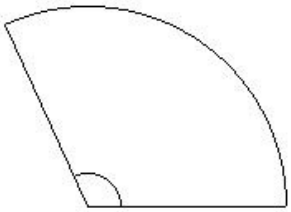
(i) 75.43 cm (ii) 70.43 cm (iii) 80.43 cm (iv) 72.43 cm (v) 78.43 cm

2. If area of the circle is 154.00 sq.cm, the circumference of the circle is



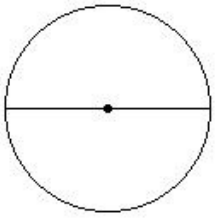
(i) 39.00 cm (ii) 49.00 cm (iii) 41.00 cm (iv) 44.00 cm (v) 47.00 cm

3. If the length of the arc of a sector is 24.10 cm and the perimeter of the circle is 75.43 cm, the radius of the circle is



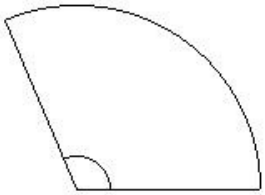
(i) 15.00 cm (ii) 9.00 cm (iii) 7.00 cm (iv) 17.00 cm (v) 12.00 cm

4. If circumference of the circle is 37.71 cm, the diameter of the circle is



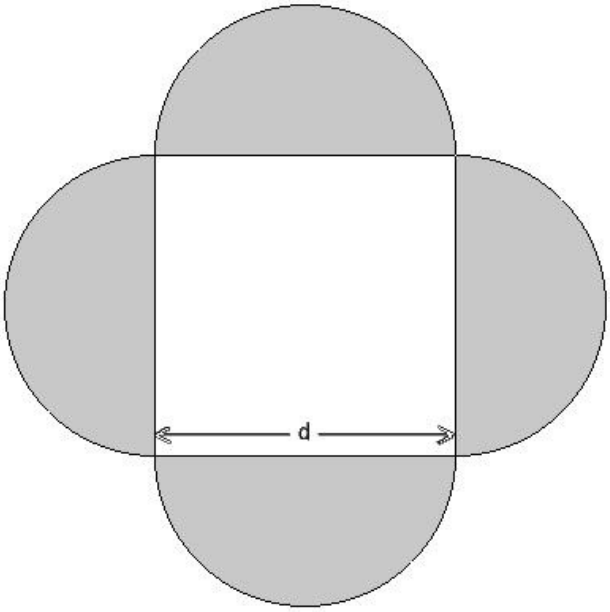
(i) 7.00 cm (ii) 9.00 cm (iii) 17.00 cm (iv) 15.00 cm (v) 12.00 cm

5. If the length of the arc of a sector is 21.70 cm and the area of the circle is 380.29 sq.cm, the perimeter of the sector is



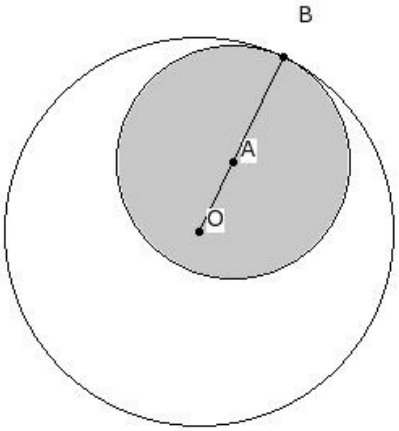
(i) 46.70 cm (ii) 38.70 cm (iii) 48.70 cm (iv) 40.70 cm (v) 43.70 cm

6. In the given figure, d = 19.00 cm is the diameter of the semi-circles. Find the area of the shaded region



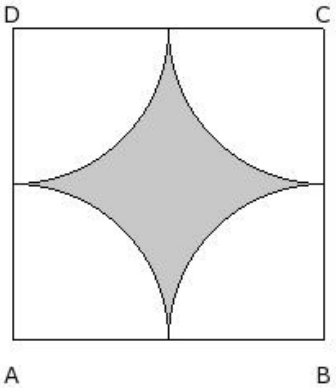
(i) 553.29 sq.cm (ii) 575.29 sq.cm (iii) 567.29 sq.cm (iv) 590.29 sq.cm (v) 555.29 sq.cm

7. In the below figure, two circles with centers O and A touch internally at B. If OB = 12.00 cm and OA = 4.8 cm, find the area of the unshaded region



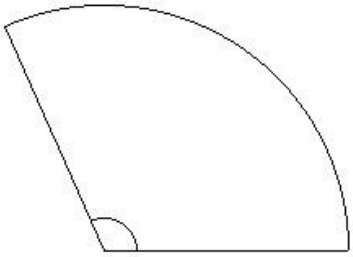
(i) 303.65 sq.cm (ii) 292.65 sq.cm (iii) 289.65 sq.cm (iv) 287.65 sq.cm (v) 265.65 sq.cm

8. In the given figure, ABCD is a square of side 19.00 cm and A, B, C, D are the centres of circular arcs, each of radius 9.50 cm. Find the area of the shaded region



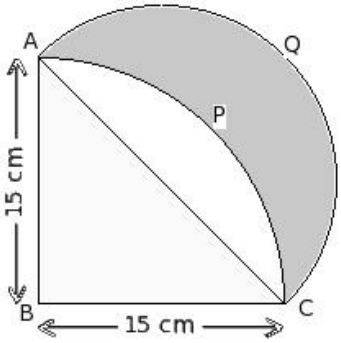
(i) 72.36 sq.cm (ii) 74.36 sq.cm (iii) 80.36 sq.cm (iv) 77.36 sq.cm (v) 82.36 sq.cm

9. If the area of a sector of a circle is 223.93 sq.cm and the length of the arc of the sector is 29.86 cm, the radius of the circle is



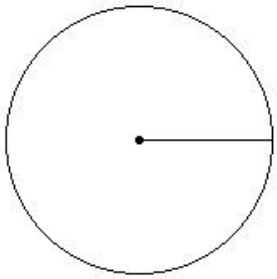
(i) 12.00 cm (ii) 15.00 cm (iii) 20.00 cm (iv) 10.00 cm (v) 18.00 cm

10. In the below figure, BCPA is a quadrant of a circle. BC = 15.00 cm and CQA is a semicircle with CA as the diameter. Find the area of the shaded region



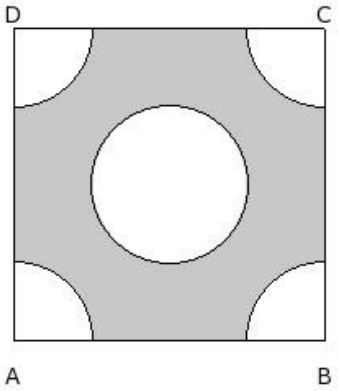
(i) 90.50 sq.cm (ii) 112.50 sq.cm (iii) 130.50 sq.cm (iv) 109.50 sq.cm (v) 126.50 sq.cm

11. If radius of the circle is 8.00 cm, the area of the semicircle is



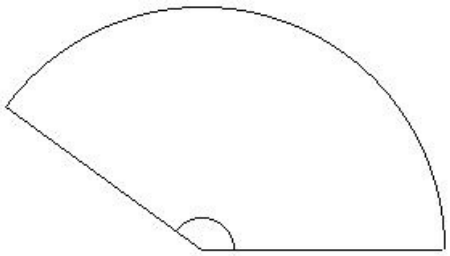
(i) 113.57 sq.cm (ii) 83.57 sq.cm (iii) 100.57 sq.cm (iv) 114.57 sq.cm (v) 98.57 sq.cm

12. In the given figure, ABCD is a square of side 19.00 cm . At the centre there is a circle with radius 4.75 cm and the same circle quadrants are at the four corners. Find the perimeter of the shaded region.



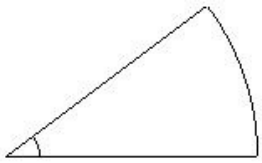
(i) 100.71 cm (ii) 92.71 cm (iii) 102.71 cm (iv) 97.71 cm (v) 94.71 cm

13. If the radius of a circle is 15.00 cm and the area of a sector is 282.86 sq.cm, the angle subtended at the center by the arc of the sector is



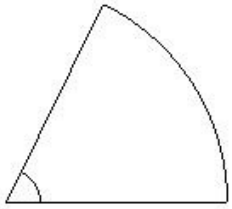
(i) 138.00° (ii) 149.00° (iii) 144.00° (iv) 118.00° (v) 171.00°

14. If the radius of a circle is 15.00 cm and the perimeter of a sector is 39.69 cm, the area of the sector is



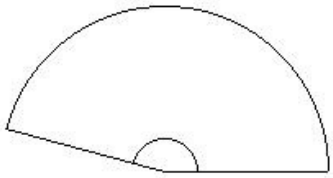
(i) 77.68 sq.cm (ii) 67.68 sq.cm (iii) 72.68 sq.cm (iv) 69.68 sq.cm (v) 75.68 sq.cm

15. If the area of a sector of a circle is 94.42 sq.cm and the area of the circle is 531.14 sq.cm, the radius of the circle is



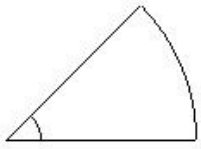
(i) 10.00 cm (ii) 8.00 cm (iii) 18.00 cm (iv) 16.00 cm (v) 13.00 cm

16. If the radius of a circle is 10.00 cm and the area of a sector is 144.05 sq.cm, the perimeter of the circle is



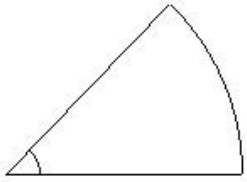
(i) 62.86 cm (ii) 65.86 cm (iii) 59.86 cm (iv) 57.86 cm (v) 67.86 cm

17. If the radius of a circle is 11.00 cm and the area of a sector is 47.54 sq.cm, the area of the circle is



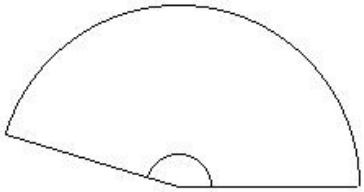
(i) 407.29 sq.cm (ii) 398.29 sq.cm (iii) 357.29 sq.cm (iv) 380.29 sq.cm (v) 366.29 sq.cm

18. If the radius of a circle is 14.00 cm and the angle subtended at the center by the arc of a sector is 46.00°, the perimeter of the circle is



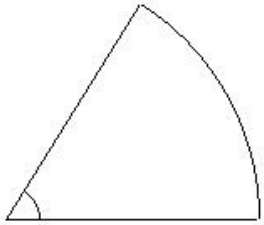
(i) 85.00 cm (ii) 83.00 cm (iii) 91.00 cm (iv) 88.00 cm (v) 93.00 cm

19. If the radius of a circle is 11.00 cm and the perimeter of a sector is 53.31 cm, the length of the arc of the sector is



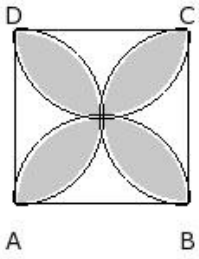
(i) 36.31 cm (ii) 34.31 cm (iii) 28.31 cm (iv) 31.31 cm (v) 26.31 cm

20. If the radius of a circle is 15.00 cm and the area of a sector is 113.93 sq.cm, the length of the arc of the sector is



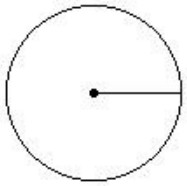
(i) 10.19 cm (ii) 12.19 cm (iii) 18.19 cm (iv) 15.19 cm (v) 20.19 cm

21. In the given figure, ABCD is a square with side 10.00 cm. Find the area of the shaded region



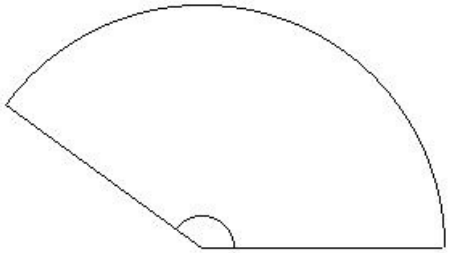
(i) 62.14 sq.cm (ii) 52.14 sq.cm (iii) 60.14 sq.cm (iv) 57.14 sq.cm (v) 54.14 sq.cm

22. If radius of the circle is 5.00 cm, the perimeter of the semicircle is



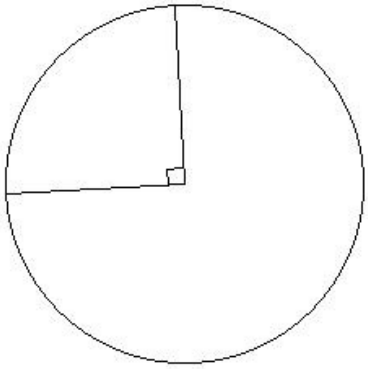
(i) 28.71 cm (ii) 20.71 cm (iii) 25.71 cm (iv) 22.71 cm (v) 30.71 cm

23. If the length of the arc of a sector is 37.72 cm and the area of the circle is 707.14 sq.cm, the angle subtended at the center by the arc of the sector is



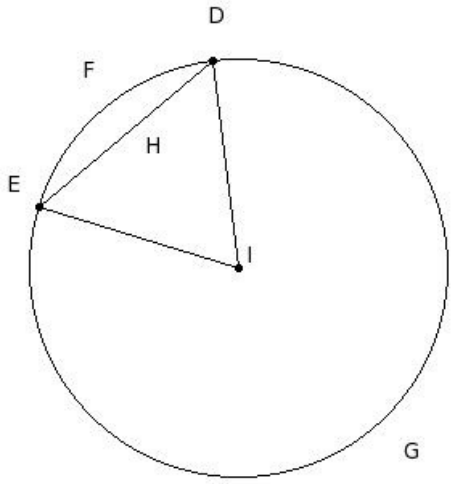
(i) 144.00° (ii) 128.00° (iii) 159.00° (iv) 121.00° (v) 172.00°

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



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

25. The minor arc of the circle is



(i) DFEHD (ii) DGEHD (iii) IDFEI (iv) DFE (v) DGE

Assignment Key

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