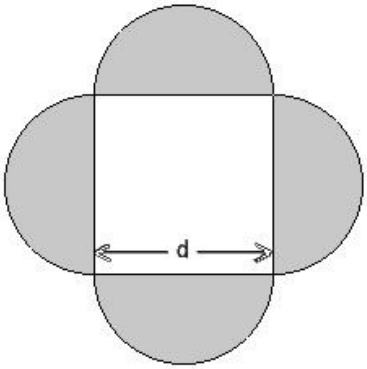
EduSahara™ Worksheet

Name : Chapter Based Worksheet

Chapter : Circumference and Area of a Circle

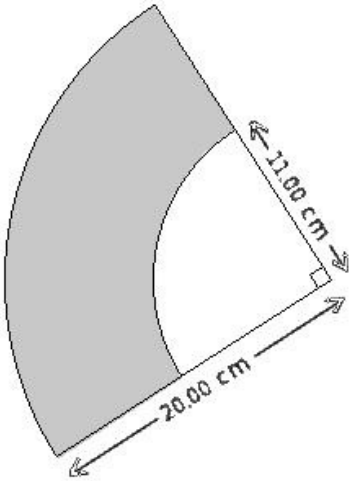
Grade : ICSE Grade X

1. In the given figure, d = 11.00 cm is the diameter of the semi-circles. Find the area of the shaded region



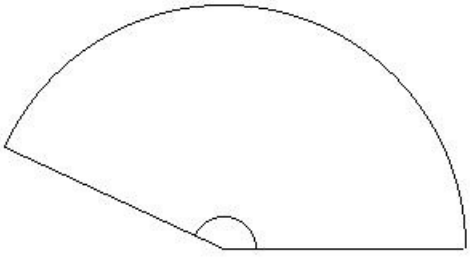
(i) 164.14 sq.cm (ii) 172.14 sq.cm (iii) 190.14 sq.cm (iv) 207.14 sq.cm (v) 213.14 sq.cm

2. Find the area of the shaded region



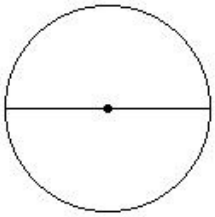
(i) 246.21 sq.cm (ii) 227.21 sq.cm (iii) 201.21 sq.cm (iv) 203.21 sq.cm (v) 219.21 sq.cm

3. If the length of the arc of a sector is 40.60 cm and the area of the circle is 707.14 sq.cm, the area of the sector is



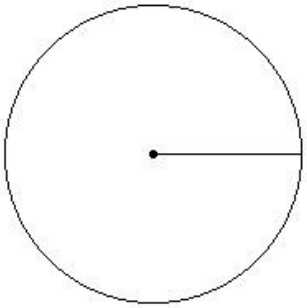
(i) 302.46 sq.cm (ii) 310.46 sq.cm (iii) 304.46 sq.cm (iv) 279.46 sq.cm (v) 327.46 sq.cm

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



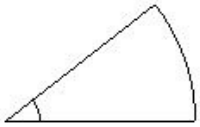
(i) 9.00 cm (ii) 15.00 cm (iii) 12.00 cm (iv) 7.00 cm (v) 17.00 cm

5. If radius of the circle is 9.00 cm, the area of the semicircle is



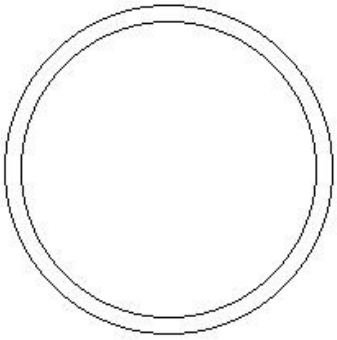
(i) 122.29 sq.cm (ii) 114.29 sq.cm (iii) 127.29 sq.cm (iv) 139.29 sq.cm (v) 141.29 sq.cm

6. If the radius of a circle is 11.00 cm and the area of a sector is 40.14 sq.cm, the area of the circle is



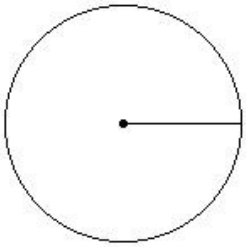
(i) 397.29 sq.cm (ii) 378.29 sq.cm (iii) 380.29 sq.cm (iv) 358.29 sq.cm

7. If the width of the ring is 1.00 cm and outer radius is 10.00 cm, the inner circle radius is



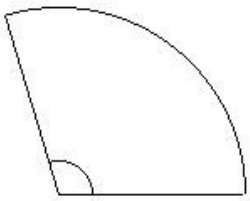
(i) 7.00 cm (ii) 8.00 cm (iii) 9.00 cm (iv) 11.00 cm (v) 10.00 cm

8. If circumference of the circle is 44.00 cm, the radius of the circle is



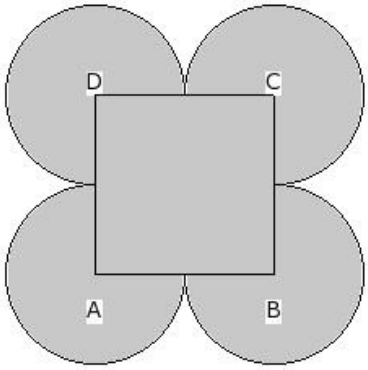
(i) 9.00 cm (ii) 8.00 cm (iii) 5.00 cm (iv) 6.00 cm (v) 7.00 cm

9. If the area of a sector of a circle is 113.03 sq.cm and the length of the arc of the sector is 20.55 cm, the perimeter of the circle is



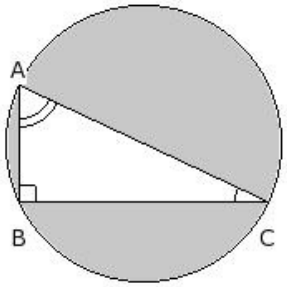
(i) 69.14 cm (ii) 72.14 cm (iii) 74.14 cm (iv) 64.14 cm (v) 66.14 cm

10. In the given figure, ABCD is a square of side 11.00 cm and A, B, C, D are centres of circles which touch externally in pairs. Find the area of the shaded region



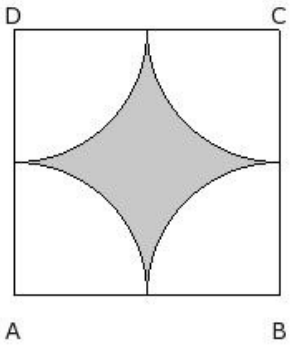
(i) 382.21 sq.cm (ii) 389.21 sq.cm (iii) 424.21 sq.cm (iv) 406.21 sq.cm

11. In the given figure, BC = 15 cm and AB = 7 cm. Find the perimeter of the shaded region



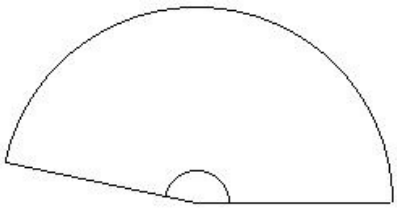
(i) 87.58 cm (ii) 85.58 cm (iii) 93.58 cm (iv) 95.58 cm (v) 90.58 cm

12. In the given figure, ABCD is a square of side 16.00 cm and A, B, C, D are the centres of circular arcs, each of radius 8.00 cm. Find the area of the shaded region



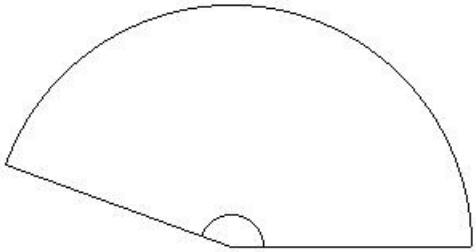
(i) 54.86 sq.cm (ii) 49.86 sq.cm (iii) 57.86 sq.cm (iv) 51.86 sq.cm (v) 59.86 sq.cm

13. If the area of a sector of a circle is 211.20 sq.cm and the area of the circle is 452.57 sq.cm, the perimeter of the sector is



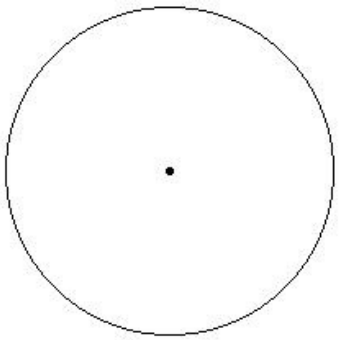
(i) 56.20 cm (ii) 59.20 cm (iii) 64.20 cm (iv) 62.20 cm (v) 54.20 cm

14. If the area of a sector of a circle is 314.28 sq.cm and the length of the arc of the sector is 41.91 cm, the perimeter of the sector is



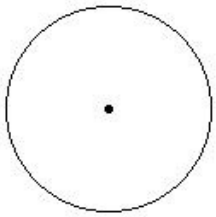
(i) 74.91 cm (ii) 76.91 cm (iii) 68.91 cm (iv) 66.91 cm (v) 71.91 cm

15. If area of the circle is 314.29 sq.cm, the area of the semicircle is



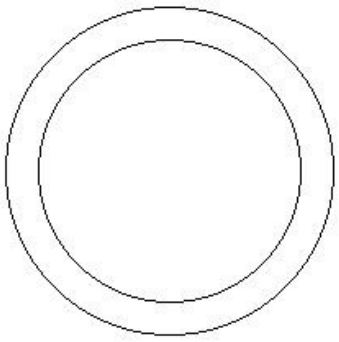
(i) 157.14 sq.cm (ii) 134.14 sq.cm (iii) 165.14 sq.cm (iv) 139.14 sq.cm (v) 184.14 sq.cm

16. If area of the circle is 113.14 sq.cm, the perimeter of the semicircle is



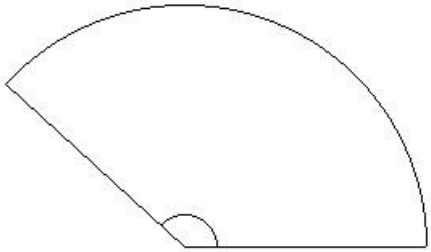
(i) 27.86 cm (ii) 30.86 cm (iii) 33.86 cm (iv) 35.86 cm (v) 25.86 cm

17. If the inner radius of the ring is 8.00 cm and area of the ring is 113.14 sq.cm, the outer circle area is



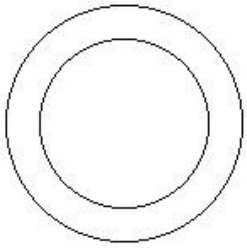
(i) 321.29 sq.cm (ii) 329.29 sq.cm (iii) 292.29 sq.cm (iv) 296.29 sq.cm (v) 314.29 sq.cm

18. If the radius of a circle is 15.00 cm and the length of the arc of a sector is 36.14 cm, the area of the circle is



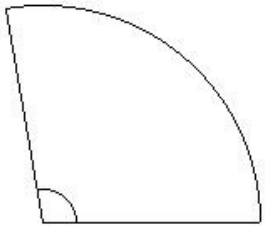
(i) 724.14 sq.cm (ii) 683.14 sq.cm (iii) 715.14 sq.cm (iv) 707.14 sq.cm (v) 690.14 sq.cm

19. If the inner radius of the ring is 5.00 cm and area of the ring is 75.43 sq.cm, the width of the ring is



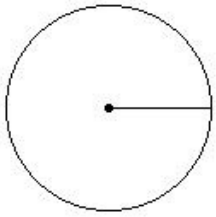
(i) 2.00 cm (ii) 0.00 cm (iii) 1.00 cm (iv) 4.00 cm (v) 3.00 cm

20. If the radius of a circle is 13.00 cm and the angle subtended at the center by the arc of a sector is 100.00°, the length of the arc of the sector is



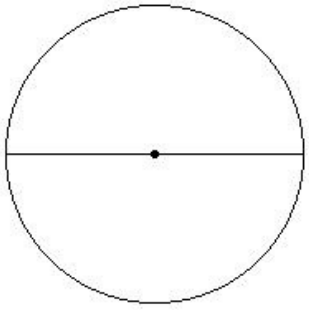
(i) 17.70 cm (ii) 27.70 cm (iii) 22.70 cm (iv) 19.70 cm (v) 25.70 cm

21. If radius of the circle is 6.00 cm, the area of the circle is



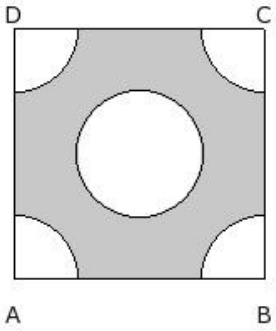
(i) 113.14 sq.cm (ii) 98.14 sq.cm (iii) 97.14 sq.cm (iv) 121.14 sq.cm (v) 127.14 sq.cm

22. If diameter of the circle is 18.00 cm, the circumference of the circle is



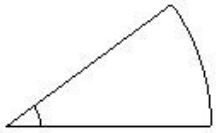
(i) 59.57 cm (ii) 51.57 cm (iii) 53.57 cm (iv) 61.57 cm (v) 56.57 cm

23. In the given figure, ABCD is a square of side 15.00 cm . At the centre there is a circle with radius 3.75 cm and the same circle quadrants are at the four corners. Find the area of the shaded region.



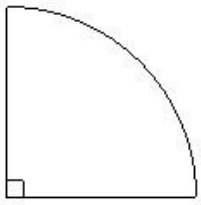
(i) 142.61 sq.cm (ii) 164.61 sq.cm (iii) 129.61 sq.cm (iv) 110.61 sq.cm (v) 136.61 sq.cm

24. If the length of the arc of a sector is 7.54 cm and the perimeter of the circle is 75.43 cm, the perimeter of the sector is



(i) 34.54 cm (ii) 28.54 cm (iii) 31.54 cm (iv) 26.54 cm (v) 36.54 cm

25. If the radius of a circle is 11.00 cm and the area of a sector is 95.07 sq.cm, the length of the arc of the sector is



(i) 14.29 cm (ii) 17.29 cm (iii) 22.29 cm (iv) 20.29 cm (v) 12.29 cm

Assignment Key

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