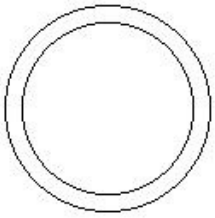
EduSahara™ Worksheet

Name : Chapter Based Worksheet

Chapter : Circumference and Area of a Circle

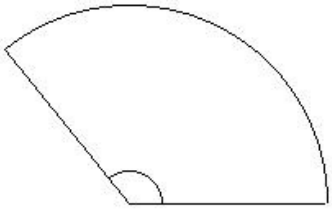
Grade : ICSE Grade X

1. If the width of the ring is 1.00 cm and inner radius is 5.00 cm, the outer circle area is



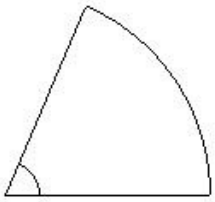
(i) 128.14 sq.cm (ii) 109.14 sq.cm (iii) 125.14 sq.cm (iv) 96.14 sq.cm (v) 113.14 sq.cm

2. If the length of the arc of a sector is 27.03 cm and the angle subtended at the center by the arc of the sector is 129.00°, the radius of the circle is



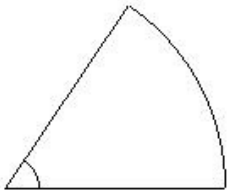
(i) 15.00 cm (ii) 7.00 cm (iii) 9.00 cm (iv) 17.00 cm (v) 12.00 cm

3. If the radius of a circle is 12.00 cm and the area of a sector is 84.23 sq.cm, the perimeter of the sector is



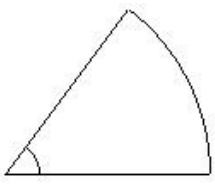
(i) 35.04 cm (ii) 38.04 cm (iii) 43.04 cm (iv) 41.04 cm (v) 33.04 cm

4. If the radius of a circle is 13.00 cm and the area of a sector is 82.62 sq.cm, the length of the arc of the sector is



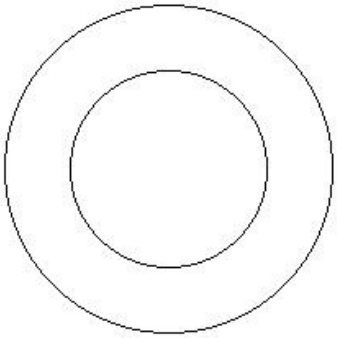
(i) 17.71 cm (ii) 15.71 cm (iii) 7.71 cm (iv) 9.71 cm (v) 12.71 cm

5. If the area of a sector of a circle is 66.63 sq.cm and the area of the circle is 452.57 sq.cm, the angle subtended at the center by the arc of the sector is



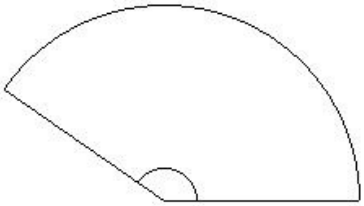
(i) 53.00° (ii) 58.00° (iii) 50.00° (iv) 48.00° (v) 56.00°

6. If the width of the ring is 4.00 cm and inner radius is 6.00 cm, the area of the ring is



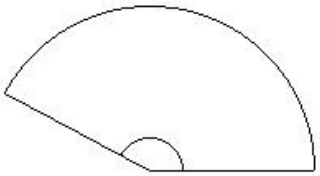
(i) 185.14 sq.cm (ii) 225.14 sq.cm (iii) 183.14 sq.cm (iv) 201.14 sq.cm (v) 204.14 sq.cm

7. If the radius of a circle is 12.00 cm and the length of the arc of a sector is 30.38 cm, the angle subtended at the center by the arc of the sector is



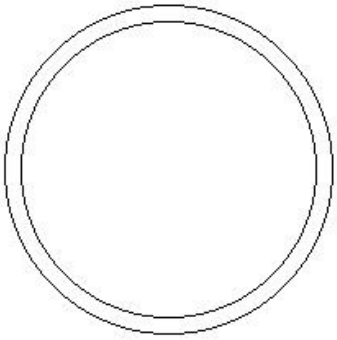
(i) 160.00° (ii) 145.00° (iii) 127.00° (iv) 131.00° (v) 162.00°

8. If the radius of a circle is 10.00 cm and the angle subtended at the center by the arc of a sector is 152.00°, the area of the sector is



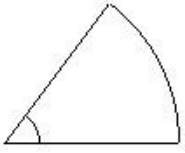
(i) 132.70 sq.cm (ii) 118.70 sq.cm (iii) 120.70 sq.cm (iv) 148.70 sq.cm (v) 155.70 sq.cm

9. If the inner radius of the ring is 9.00 cm and area of the ring is 59.71 sq.cm, the outer circle area is



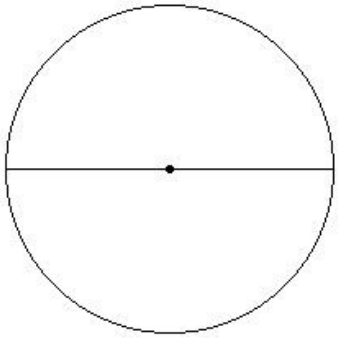
(i) 314.29 sq.cm (ii) 332.29 sq.cm (iii) 287.29 sq.cm (iv) 337.29 sq.cm (v) 298.29 sq.cm

10. If the area of a sector of a circle is 46.27 sq.cm and the angle subtended at the center by the arc of the sector is 53.00°, the length of the arc of the sector is



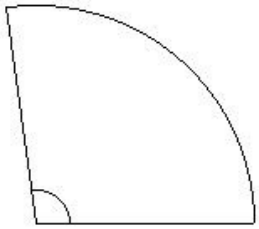
(i) 8.25 cm (ii) 7.25 cm (iii) 10.25 cm (iv) 11.25 cm (v) 9.25 cm

11. If diameter of the circle is 20.00 cm, the area of the circle is



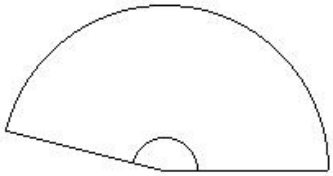
(i) 337.29 sq.cm (ii) 314.29 sq.cm (iii) 332.29 sq.cm (iv) 287.29 sq.cm (v) 299.29 sq.cm

12. If the radius of a circle is 13.00 cm and the perimeter of a sector is 48.24 cm, the area of the circle is



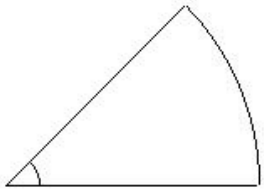
(i) 531.14 sq.cm (ii) 534.14 sq.cm (iii) 508.14 sq.cm (iv) 545.14 sq.cm (v) 526.14 sq.cm

13. If the area of a sector of a circle is 144.92 sq.cm and the length of the arc of the sector is 28.99 cm, the angle subtended at the center by the arc of the sector is



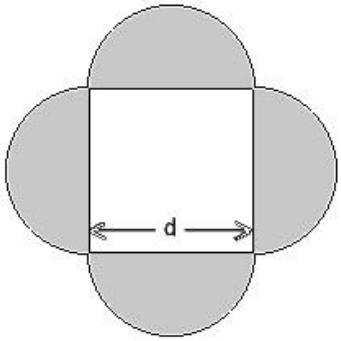
(i) 160.00° (ii) 166.00° (iii) 178.00° (iv) 183.00° (v) 154.00°

14. If the length of the arc of a sector is 11.79 cm and the perimeter of the circle is 94.29 cm, the angle subtended at the center by the arc of the sector is



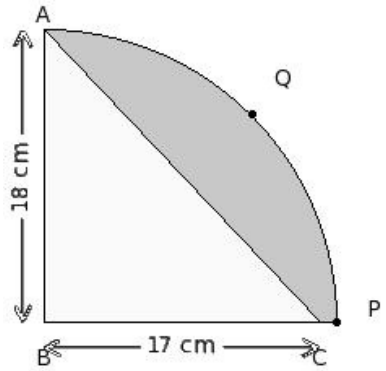
(i) 48.00° (ii) 42.00° (iii) 40.00° (iv) 50.00° (v) 45.00°

15. In the given figure, d = 10.00 cm is the diameter of the semi-circles. Find the area of the shaded region



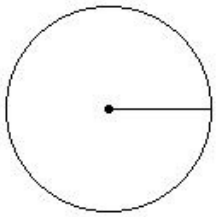
(i) 140.14 sq.cm (ii) 157.14 sq.cm (iii) 141.14 sq.cm (iv) 172.14 sq.cm (v) 173.14 sq.cm

16. In the below figure, BPQA is a quadrant of a circle. AB = 18.00 cm and BC = 17 cm . Find the area of the shaded region



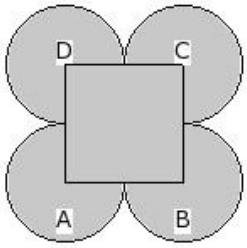
(i) 117.57 sq.cm (ii) 84.57 sq.cm (iii) 86.57 sq.cm (iv) 128.57 sq.cm (v) 101.57 sq.cm

17. If circumference of the circle is 37.71 cm, the radius of the circle is



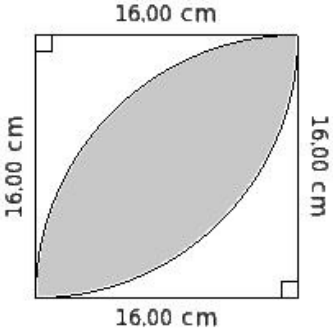
(i) 8.00 cm (ii) 6.00 cm (iii) 4.00 cm (iv) 7.00 cm (v) 5.00 cm

18. In the given figure, ABCD is a square of side 7.00 cm and A, B, C, D are centres of circles which touch externally in pairs. Find the area of the shaded region



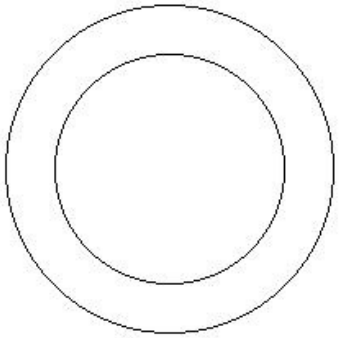
(i) 137.50 sq.cm (ii) 150.50 sq.cm (iii) 164.50 sq.cm (iv) 189.50 sq.cm (v) 177.50 sq.cm

19. Find the area of the shaded region in the given figure common between the two quadrants of circles of radius 16.00 cm each



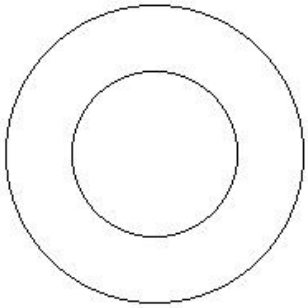
(i) 121.29 sq.cm (ii) 132.29 sq.cm (iii) 146.29 sq.cm (iv) 164.29 sq.cm (v) 163.29 sq.cm

20. If the width of the ring is 3.00 cm and inner radius is 7.00 cm, the inner circle area is



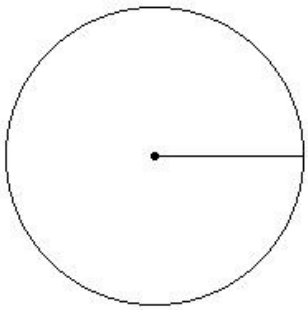
(i) 154.00 sq.cm (ii) 142.00 sq.cm (iii) 168.00 sq.cm (iv) 129.00 sq.cm (v) 160.00 sq.cm

21. If the inner and outer radii of a ring are 5.00 cm and 9.00 cm respectively, the area of the ring is



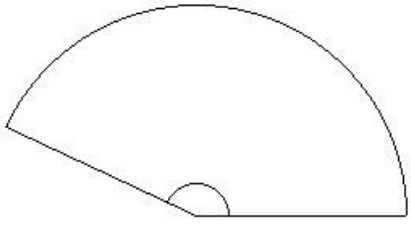
(i) 176.00 sq.cm (ii) 163.00 sq.cm (iii) 160.00 sq.cm (iv) 188.00 sq.cm (v) 180.00 sq.cm

22. If radius of the circle is 9.00 cm, the area of the circle is



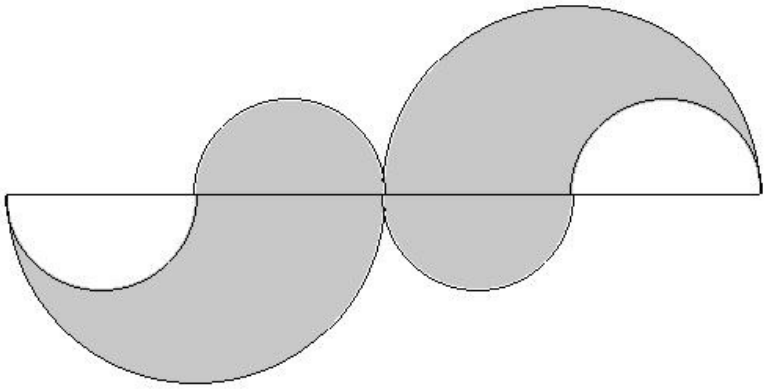
(i) 227.57 sq.cm (ii) 266.57 sq.cm (iii) 241.57 sq.cm (iv) 254.57 sq.cm (v) 262.57 sq.cm

23. If the area of a sector of a circle is 228.69 sq.cm and the length of the arc of the sector is 35.18 cm, the area of the circle is



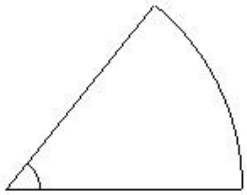
(i) 506.14 sq.cm (ii) 558.14 sq.cm (iii) 543.14 sq.cm (iv) 515.14 sq.cm (v) 531.14 sq.cm

24. 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 12.00 cm which is the same as the diameter of the small semi-circle. Find the area of the shaded region



(i) 452.57 sq.cm (ii) 458.57 sq.cm (iii) 437.57 sq.cm (iv) 425.57 sq.cm (v) 466.57 sq.cm

25. If the area of a sector of a circle is 87.27 sq.cm and the length of the arc of the sector is 12.47 cm, the radius of the circle is



(i) 14.00 cm (ii) 17.00 cm (iii) 19.00 cm (iv) 11.00 cm (v) 9.00 cm

Assignment Key

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