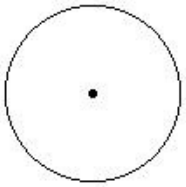
EduSahara™ Worksheet

Name : Chapter Based Worksheet

Chapter : Circumference and Area of a Circle

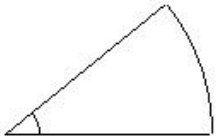
Grade : ICSE Grade X

1. If circumference of the circle is 31.43 cm, the area of the circle is



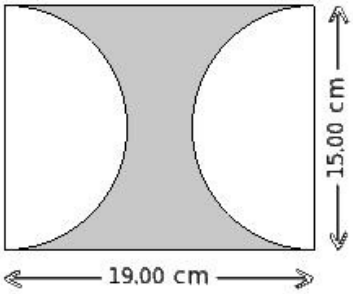
(i) 73.57 sq.cm (ii) 78.57 sq.cm (iii) 83.57 sq.cm (iv) 75.57 sq.cm (v) 81.57 sq.cm

2. If the area of a sector of a circle is 49.03 sq.cm and the angle subtended at the center by the arc of the sector is 39.00°, the perimeter of the sector is



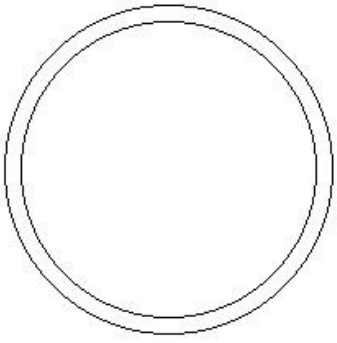
(i) 27.17 cm (ii) 32.17 cm (iii) 37.17 cm (iv) 35.17 cm (v) 29.17 cm

3. Find the area of the shaded region



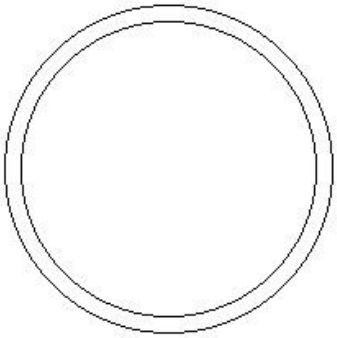
(i) 114.21 sq.cm (ii) 103.21 sq.cm (iii) 91.21 sq.cm (iv) 135.21 sq.cm (v) 108.21 sq.cm

4. 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



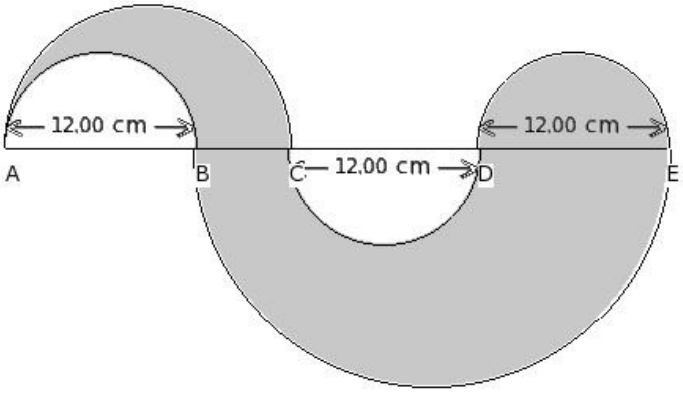
(i) 331.29 sq.cm (ii) 320.29 sq.cm (iii) 300.29 sq.cm (iv) 309.29 sq.cm (v) 314.29 sq.cm

5. If the width of the ring is 1.00 cm and inner radius is 9.00 cm, the area of the ring is



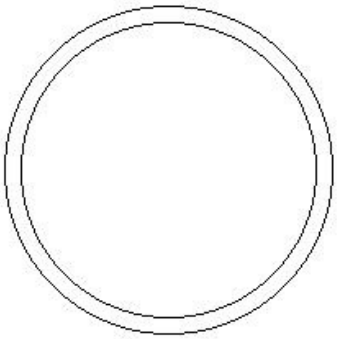
(i) 54.71 sq.cm (ii) 64.71 sq.cm (iii) 62.71 sq.cm (iv) 56.71 sq.cm (v) 59.71 sq.cm

6. In the given figure, BC = 6.00 cm. Find the area of the shaded region



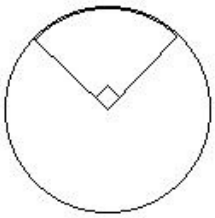
(i) 419.29 sq.cm (ii) 398.29 sq.cm (iii) 426.29 sq.cm (iv) 442.29 sq.cm (v) 424.29 sq.cm

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



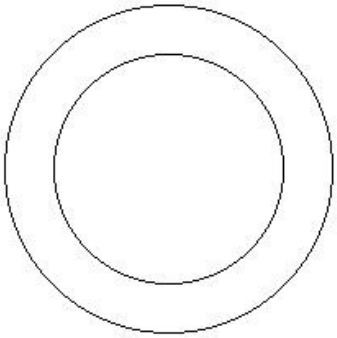
(i) 301.29 sq.cm (ii) 329.29 sq.cm (iii) 310.29 sq.cm (iv) 328.29 sq.cm (v) 314.29 sq.cm

8. In the given figure, the radius of the circle is 6 cm. Find the area of the major sector



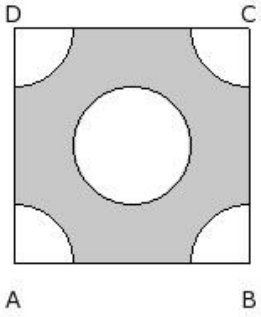
(i) 79.86 sq.cm (ii) 84.86 sq.cm (iii) 81.86 sq.cm (iv) 89.86 sq.cm (v) 87.86 sq.cm

9. If the area of the inner circle of the ring is 154.00 sq.cm and area of outer circle is 314.29 sq.cm, the outer circle radius is



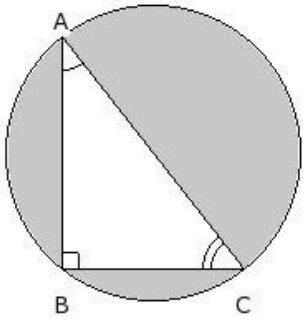
(i) 7.00 cm (ii) 5.00 cm (iii) 10.00 cm (iv) 15.00 cm (v) 13.00 cm

10. In the given figure, ABCD is a square of side 14.00 cm . At the centre there is a circle with radius 3.50 cm and the same circle quadrants are at the four corners. Find the area of the shaded region.



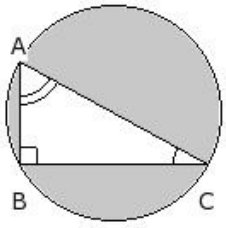
(i) 121.00 sq.cm (ii) 104.00 sq.cm (iii) 101.00 sq.cm (iv) 133.00 sq.cm (v) 119.00 sq.cm

11. In the given figure, BC = 11 cm and AB = 14 cm. Find the perimeter of the shaded region



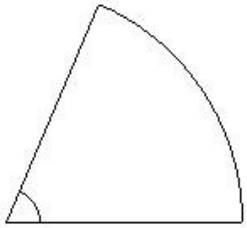
(i) 93.76 cm (ii) 103.76 cm (iii) 101.76 cm (iv) 98.76 cm (v) 95.76 cm

12. In the given figure, BC = 11 cm and AB = 6 cm. Find the area of the shaded region



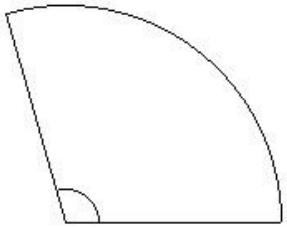
(i) 95.36 sq.cm (ii) 85.36 sq.cm (iii) 93.36 sq.cm (iv) 87.36 sq.cm (v) 90.36 sq.cm

13. If the length of the arc of a sector is 16.38 cm and the angle subtended at the center by the arc of the sector is 67.00°, the area of the circle is



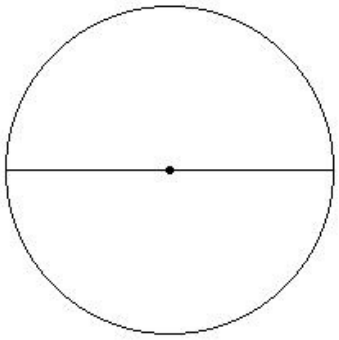
(i) 642.00 sq.cm (ii) 603.00 sq.cm (iii) 589.00 sq.cm (iv) 628.00 sq.cm (v) 616.00 sq.cm

14. If the length of the arc of a sector is 24.06 cm and the area of the circle is 531.14 sq.cm, the radius of the circle is



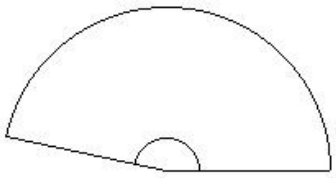
(i) 16.00 cm (ii) 8.00 cm (iii) 18.00 cm (iv) 10.00 cm (v) 13.00 cm

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



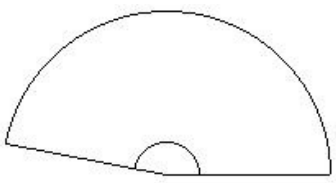
(i) 314.29 sq.cm (ii) 316.29 sq.cm (iii) 308.29 sq.cm (iv) 301.29 sq.cm (v) 339.29 sq.cm

16. If the length of the arc of a sector is 29.33 cm and the angle subtended at the center by the arc of the sector is 168.00°, the area of the sector is



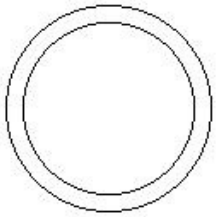
(i) 121.67 sq.cm (ii) 142.67 sq.cm (iii) 146.67 sq.cm (iv) 153.67 sq.cm (v) 170.67 sq.cm

17. If the area of a sector of a circle is 147.54 sq.cm and the angle subtended at the center by the arc of the sector is 169.00°, the radius of the circle is



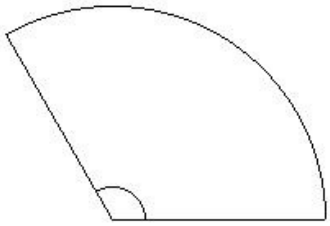
(i) 15.00 cm (ii) 10.00 cm (iii) 13.00 cm (iv) 5.00 cm (v) 7.00 cm

18. If the outer radius of the ring is 6.00 cm and area of the ring is 34.57 sq.cm, the inner circle area is



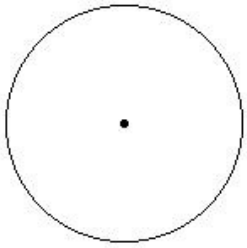
(i) 78.57 sq.cm (ii) 73.57 sq.cm (iii) 83.57 sq.cm (iv) 81.57 sq.cm (v) 75.57 sq.cm

19. If the radius of a circle is 13.00 cm and the area of a sector is 177.05 sq.cm, the area of the circle is



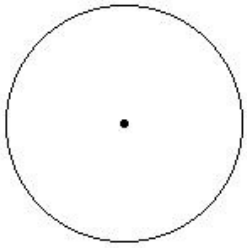
(i) 544.14 sq.cm (ii) 516.14 sq.cm (iii) 549.14 sq.cm (iv) 531.14 sq.cm (v) 504.14 sq.cm

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



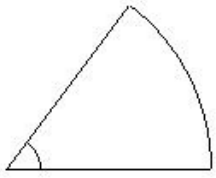
(i) 33.00 cm (ii) 39.00 cm (iii) 36.00 cm (iv) 41.00 cm (v) 31.00 cm

21. If circumference of the circle is 44.00 cm, the perimeter of the semicircle is



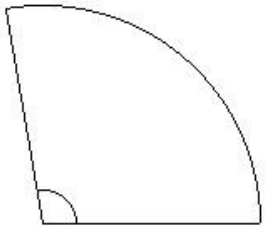
(i) 33.00 cm (ii) 39.00 cm (iii) 36.00 cm (iv) 31.00 cm (v) 41.00 cm

22. If the length of the arc of a sector is 11.10 cm and the area of the circle is 452.57 sq.cm, the area of the sector is



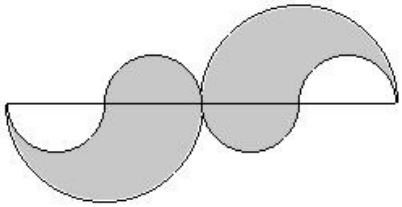
(i) 63.63 sq.cm (ii) 66.63 sq.cm (iii) 69.63 sq.cm (iv) 61.63 sq.cm (v) 71.63 sq.cm

23. If the radius of a circle is 13.00 cm and the area of a sector is 147.54 sq.cm, the perimeter of the circle is



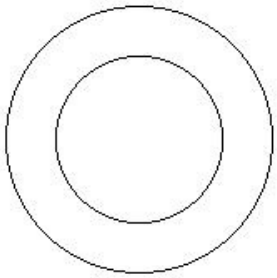
(i) 78.71 cm (ii) 76.71 cm (iii) 84.71 cm (iv) 81.71 cm (v) 86.71 cm

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



(i) 97.14 sq.cm (ii) 90.14 sq.cm (iii) 113.14 sq.cm (iv) 129.14 sq.cm (v) 115.14 sq.cm

25. If the width of the ring is 3.00 cm and inner radius is 5.00 cm, the outer circle radius is



(i) 8.00 cm (ii) 10.00 cm (iii) 7.00 cm (iv) 6.00 cm (v) 9.00 cm

Assignment Key

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