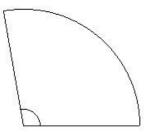
Name : Chapter Based Worksheet

Chapter: Area Related to Circles

Grade: CBSE Grade X

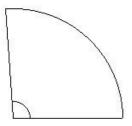
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If the radius of a circle is 14.00 cm and the area of a sector is 171.11 sq.cm, the angle subtended at the center by the arc of the sector is



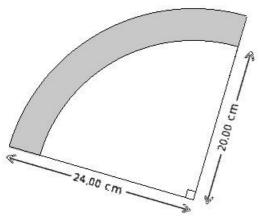
(i) 114.00° (ii) 100.00° (iii) 127.00° (iv) 83.00° (v) 85.00°

2. If the radius of a circle is 13.00 cm and the perimeter of a sector is 47.34 cm, the area of the circle is



(i) 547.14 sq.cm (ii) 518.14 sq.cm (iii) 524.14 sq.cm (iv) 543.14 sq.cm (v) 531.14 sq.cm

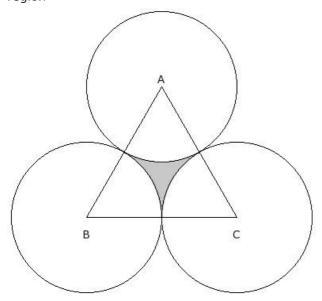
3. Find the area of the shaded region



(i) 154.29 sq.cm (ii) 120.29 sq.cm (iii) 138.29 sq.cm (iv) 133.29 sq.cm (v) 142.29 sq.cm

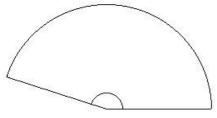
In the given figure $\triangle ABC$ is an equilateral triangle whose area is 156.32 sq.cm. With each vertex of the triangle as

4. center, a circle is drawn with radius equal to half the length of the side of the triangle . Find the area of the shaded region



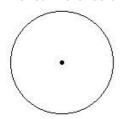
(i) 9.50 sq.cm (ii) 19.50 sq.cm (iii) 14.50 sq.cm (iv) 17.50 sq.cm (v) 11.50 sq.cm

If the length of the arc of a sector is 36.77 cm and the perimeter of the circle is 81.71 cm, the angle subtended at the center by the arc of the sector is



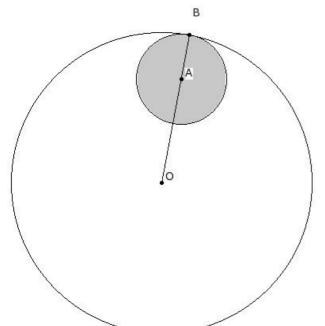
(i) 168.00° (ii) 148.00° (iii) 157.00° (iv) 175.00° (v) 162.00°

6. If circumference of the circle is 37.71 cm, the area of the semicircle is



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

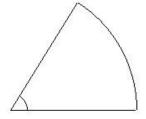
7. In the below figure, two circles with centers O and A touch internally at B. If OB = 19.00 cm and OA = 13.3 cm, find the area of the unshaded region



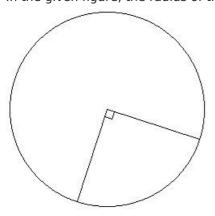
- (i) 912.46 sq.cm (ii) 1282.46 sq.cm (iii) 1002.46 sq.cm (iv) 1032.46 sq.cm (v) 1152.46 sq.cm
- 8. If the area of a sector of a circle is 44.26 sq.cm and the area of the circle is 531.14 sq.cm, the radius of the circle is



- (i) 18.00 cm (ii) 16.00 cm (iii) 13.00 cm (iv) 8.00 cm (v) 10.00 cm
- 9. If the length of the arc of a sector is 15.19 cm and the perimeter of the circle is 94.29 cm, the area of the sector is

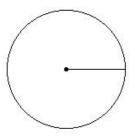


- (i) 113.93 sq.cm (ii) 111.93 sq.cm (iii) 118.93 sq.cm (iv) 135.93 sq.cm (v) 86.93 sq.cm
- 10. In the given figure, the radius of the circle is 12 cm. Find the area of the minor sector



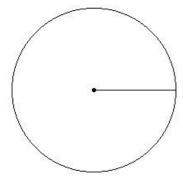
(i) 127.14 sq.cm (ii) 106.14 sq.cm (iii) 113.14 sq.cm (iv) 87.14 sq.cm (v) 131.14 sq.cm

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



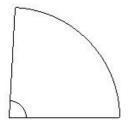
(i) 5.00 cm (ii) 9.00 cm (iii) 7.00 cm (iv) 6.00 cm (v) 8.00 cm

12. If radius of the circle is 10.00 cm, the perimeter of the semicircle is



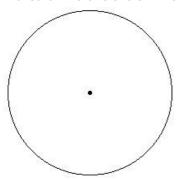
(i) 48.43 cm (ii) 54.43 cm (iii) 46.43 cm (iv) 51.43 cm (v) 56.43 cm

13. If the length of the arc of a sector is 19.75 cm and the angle subtended at the center by the arc of the sector is 87.00°, the area of the circle is



(i) 516.14 sq.cm (ii) 549.14 sq.cm (iii) 509.14 sq.cm (iv) 554.14 sq.cm (v) 531.14 sq.cm

14. If area of the circle is 314.29 sq.cm, the circumference of the circle is



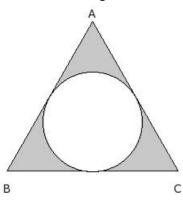
(i) 57.86 cm (ii) 62.86 cm (iii) 67.86 cm (iv) 59.86 cm (v) 65.86 cm

15. If the area of a sector of a circle is 37.71 sq.cm and the angle subtended at the center by the arc of the sector is 30.00° , the area of the circle is



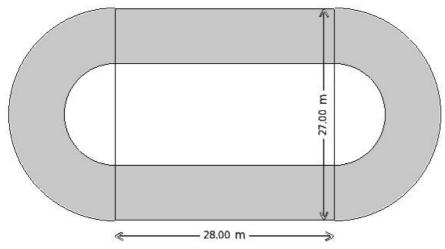
(i) 452.57 sq.cm (ii) 474.57 sq.cm (iii) 456.57 sq.cm (iv) 445.57 sq.cm (v) 425.57 sq.cm

16. In the given figure, a circle is inscribed touching the sides of an equilateral triangle of side 21 cm. Find the area of the shaded region



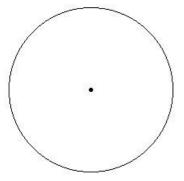
(i) 70.46 sq.cm (ii) 75.46 sq.cm (iii) 78.46 sq.cm (iv) 72.46 sq.cm (v) 80.46 sq.cm

17. In the given figure, the width of the circular path is 7.00 m. Find the area of the shaded region



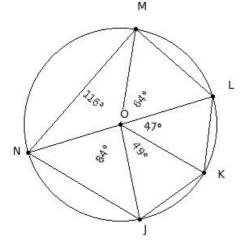
(i) 832.00 sq.m (ii) 818.00 sq.m (iii) 838.00 sq.m (iv) 819.00 sq.m (v) 857.00 sq.m

18. If circumference of the circle is 62.86 cm, the area of the circle is



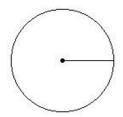
(i) 308.29 sq.cm (ii) 314.29 sq.cm (iii) 322.29 sq.cm (iv) 301.29 sq.cm (v) 326.29 sq.cm

19. The chords of the circle are

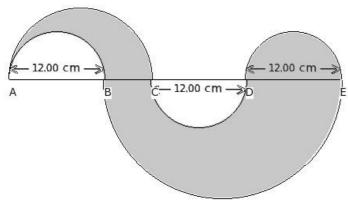


- $(i) \ \overline{JK}, \overline{KL}, \overline{LM}, \overline{MN}, \overline{NJ} \ (ii) \ \overline{JK}, \overline{KL}, \overline{LM}, \overline{MN}, \overline{NJ}, \overline{OM} \ (iii) \ \overline{JK}, \overline{KL}, \overline{LM}, \overline{MN}, \overline{NJ}, \overline{LN} \ (iv) \ \overline{OJ}, \overline{OK}, \overline{OL}, \overline{OM}, \overline{ON}$
- (v) \overline{KL} , \overline{LM} , \overline{MN} , \overline{NJ}

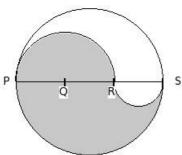
20. If area of the circle is 113.14 sq.cm, the radius of the circle is



- (i) 5.00 cm (ii) 4.00 cm (iii) 8.00 cm (iv) 6.00 cm (v) 7.00 cm
- 21. In the given figure, BC = 6.00 cm. Find the area of the shaded region

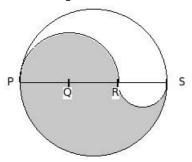


- (i) 410.29 sq.cm (ii) 428.29 sq.cm (iii) 399.29 sq.cm (iv) 424.29 sq.cm (v) 441.29 sq.cm
- In the given figure ,PQRS is the diameter of the circle of radius 3.00 cm and PQ = QR = RS. Find the perimeter of the shaded region

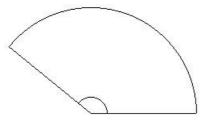


(i) 21.86 cm (ii) 13.86 cm (iii) 15.86 cm (iv) 18.86 cm (v) 23.86 cm

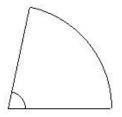
In the given figure ,PQRS is the diameter of the circle of radius 15.00 cm and PQ = QR = RS. Find the area of the shaded region



- (i) 464.43 sq.cm (ii) 471.43 sq.cm (iii) 475.43 sq.cm (iv) 446.43 sq.cm (v) 483.43 sq.cm
- 24. If the area of a sector of a circle is 208.03 sq.cm and the area of the circle is 531.14 sq.cm, the perimeter of the sector is



- (i) 55.00 cm (ii) 53.00 cm (iii) 58.00 cm (iv) 63.00 cm (v) 61.00 cm
- 25. If the area of a sector of a circle is 98.06 sq.cm and the length of the arc of the sector is 16.34 cm, the angle subtended at the center by the arc of the sector is



(i) 75.00° (ii) 81.00° (iii) 83.00° (iv) 73.00° (v) 78.00°

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

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