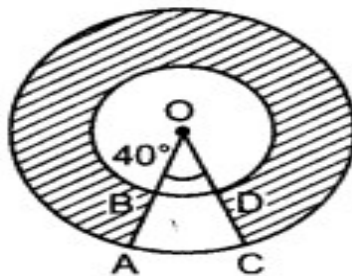




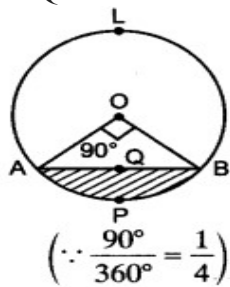
Subject–Mathematics
Topic – Circle(Circumference, Area)
(Worksheet)

1. If the radius of a circle is 28 cm, what is its circumference?
2. If the circumference of a circle is 20π units, find its radius.
3. Compare the circumferences of two circles with radii 14 cm and 28 cm.
4. How does the circumference change when the radius of a circle is doubled?
5. If the circumference of a circle is 44 cm, what is its diameter?
6. Find the circumference of a circle with a radius of 3.5 meters.
7. A circle has a circumference of 66π cm. What is its radius?
8. If the radius of a circle is 49 cm, what is its area?
9. Calculate the area of a circle with a diameter of 56 units.
10. Compare the areas of two circles with radii 14 cm and 56 cm.
11. How does the area change when the radius of a circle is tripled?
12. If the area of a circle is 36π square units, what is its radius?
13. Find the area of a circle with a radius of 4.5 meters.
14. A circle has an area of 100π square centimeters. What is its radius?
15. If the central angle of a sector is 90 degrees and the radius is 8 cm, find the area.
19. If the central angle of a sector is 60 degrees and the radius is 35 cm, find the length of an arc.
20. If the central angle of a sector is 60 degrees and the radius is 56 cm, find the area.
21. Express the formula for the area of a sector in terms of the central angle.
22. Calculate the area of a sector with a central angle of 45 degrees and a radius of 12 cm.
23. Compare the areas of two sectors with the same radius but different central angles.
24. How does the area of a sector change when the central angle is doubled?
25. If the area of a sector is 154 square units and the central angle is 90 degrees, find the radius.

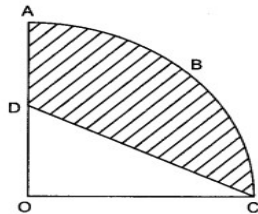
26. Find the area of a sector with a central angle of 120 degrees and a radius of 10 units.
27. A sector has an area of 25π square centimeters and a radius of 5 cm. Find the central angle.
28. If the central angle of an arc is 75 degrees and the radius is 6 cm, find the arc length.
29. Express the formula for the length of an arc in terms of the central angle.
30. Calculate the length of an arc with a central angle of 75 degrees and a radius of 8 cm.
31. How does the arc length change when the central angle is halved?
32. If the arc length is 176 cm and the central angle is 120 degrees, find the radius.
33. Find the length of an arc with a central angle of 60 degrees and a radius of 5 units.
34. An arc has a length of 15 cm and a radius of 3 cm. Find the central angle.
35. A circle has a circumference of 30π cm. What is its area?
36. If the area of a circle is 144π square units, what is its circumference?
37. A sector has a central angle of 120 degrees and a radius of 9 cm. Find its area.
38. If the area of a sector is 25π square units and the central angle is 45 degrees, find the radius.
39. A circle has a radius of 10 cm. What is the length of an arc with a central angle of 60 degrees?
40. If the length of an arc is 12 cm and the radius is 4 cm, find the central angle.
41. A circle has an area of 64π square units. What is the length of its radius?
42. If the length of an arc is 15 cm and the central angle is 30 degrees, find the radius.
43. A circle has a diameter of 14 units. Find its area and circumference.
44. If the radius of a circle is 63 cm and the central angle of a sector is 45 degrees, find the length of the arc.
45. In figure, find the area of the shaded region, enclosed between two concentric circles of radii 7 cm and 14 cm where $\angle AOC = 40^\circ$.



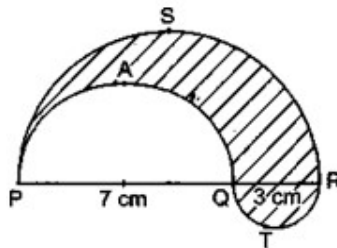
46. In figure, is a chord AB of a circle, with centre O and radius 10 cm, that subtends a right angle at the centre of the circle. Find the area of the minor segment AQB. Hence, find the area of major segment ALBQA.



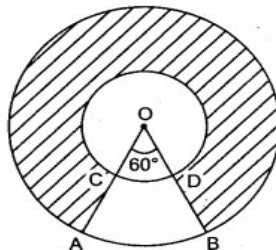
47. In figure, OABC is a quadrant of a circle of radius 7 cm. If OD = 4 cm, find the area of the shaded region.



48. In figure, PSR, RTQ and PAQ are three semicircles of diameters 10 cm, 3 cm and 7 cm respectively. Find the perimeter of the shaded region.



49. In figure, two concentric circles with centre O, have radii 21 cm and 42 cm. If $\angle AOB = 60^\circ$, find the area of the shaded region.



50. In the given figure, the area of the shaded region between two concentric circles is 286 cm^2 . If the difference of the radii of the two circles is 7 cm, find the sum of their radii.

