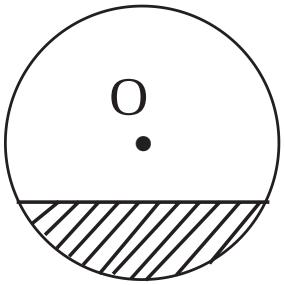
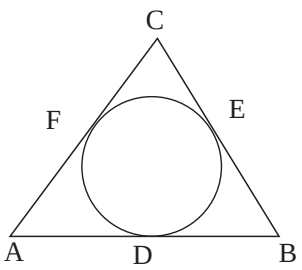
9. TANGENTS & SECANTS TO A CIRCLE

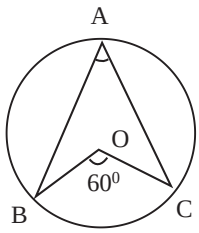
1. The length of the tangents from a point A to a circle of radius 3 cm is 4 cm, then the distance between A and the centre of the circle is ____
2. ____ tangents lines can be drawn to a circle from a point outside the circle.
3. Angle between the tangent and radius drawn through the point of contact is ____
4. A circle may have ____parallel tangents.
5. The common point to a tangent and a circle is called ____
6. A line which intersects the given circle at two distinct points is called a ____ line.
7. Sum of the central angles in a circle is___
8. The shaded portion represents ____



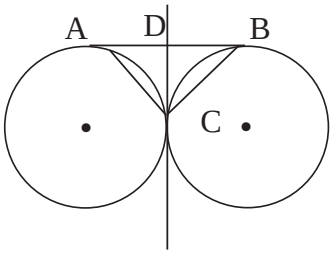
9. If a circle touches all the four sides of an quadrilateral ABCD at points P, Q, R, S then AB + CD = ____
10. If AP and AQ are the two tangents a circle with centre O so that $\angle POQ = 110^0$ then $\angle PAQ$ is equal to ____
11. If two concentric circles of radii 5 cm and 3 cm are drawn, then the length of the chord of the larger circle which touches the smaller circle is ____
12. If the semi perimeter of given ΔABC = 28 cm then AF+BD+CE is ____



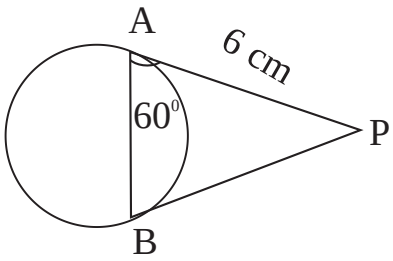
13. The area of a square inscribed in a circle of radius 8 cm is ____ cm^2.
14. Number of circles passing through 3 collinear points in a plane is ____
15. In the figure ∠BAC ____



16. If the sector of the circle made at the centre is x^0 and radius of the circle is r, then the area of sector is ____
17. If the length of the minute hand of a clock is 14 cm, then the area swept by the minute hand in 10 minutes ____
18. If the angle between two radii of a circle is 130^0, the angle between the tangents at the ends of the radii is ____
19. If PT is tangent drawn from a point P to a circle touching it at T and O is the centre of the circle, then ∠OPT+∠POT is ____
20. Two parallel lines touch the circle at points A and B. If area of the circle is $25\pi cm^2$, then AB is equal to ____
21. A circle have ____ tangents.
22. A quadrilateral PQRS is drawn to circumscribe a circle. If PQ, QR, RS (in cm) are 5, 9, 8 respectively, then PS (in cms) equal to ____
23. From the figure ∠ACB = ____



24. PA and PB are tangents to the circle with centre O touching it at A and B respectively. If $\angle APO = 30^0$, then ∠POB ____
25. Two concentric circles of radii a and b where a>b are given. The length of the chord of the larger circle which touches the smaller circle is ____
26. From the figure, the length of the chord AB If PA = 6 cm and $\angle POB = 60^0$ ____



27. Two circles of radii 5 cm and 3cm touch each other internally. The distance between their centres is ____
28. The lengths of tangents drawn from an external point to a circle are ____

ANSWERS

1) 5 cm; 2) 2; 3) 90°; 4) 2; 5) Point of contact; 6) Secant line; 7) 360°; 8) Minor segment; 9) BC + AD; 10) 70°; 11) 8 cm; 12) 28cm; 13) 128;14) 1; 15) 30°;

16) $\frac{x^\circ}{360} \times \pi r^2$; 17) $102\frac{2}{3}$ sq.cm; 18) 50°; 19) 90°; 20) 10cm; 21) Infinitely many; 22) 4cm; 23) 90°; 24) 65°; 25) $2\sqrt{a^2 - b^2}$; 26) 6cm; 27) 2cm; 28) equal.