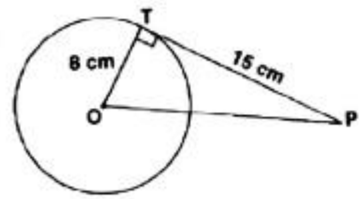
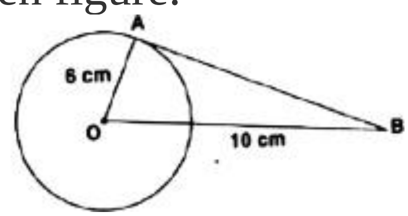
CIRCLES AND CONSTRUCTION

1. In the adjoining figure, PA and PB are tangents from P to a circle with centre. C If ∠APB = 40° then find ∠ACB.

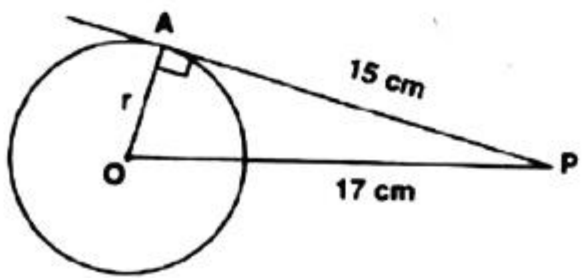
2. In the given figure, PT is a tangent to the circle and O is its centre. Find OP.



3. If O is the centre of the circle, then find the length of the tangent AB in the given figure.



4. From a point P, the length of the tangent to a circle is 12 cm and distance of P from the centre of the circle is 17 cm, then what is the radius of the circle?

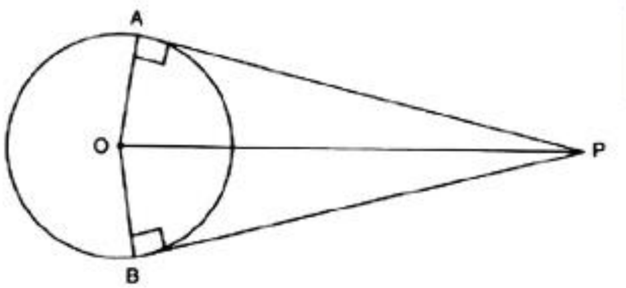


5. Prove that the tangents drawn at the ends of a chord of a cricle make equal angles with the chord.

6. Two concentric circle have a common centre O. The chord AB to the bigger circle touches the smaller circle at P. If OP = 3 cm and AB = 8 cm then find the radius of the bigger circle.

7. Given two concentric circle of radii 10 cm and 6 cm. Find the length of the chord of the larger circle which touches the other circle.
8. In a right ΔABC, right angled at B, BC = 5 cm and AB = 12 cm. The cirlce is touching the sides of ΔABC. Find the radius of the circle.

9. Prove that the parallelogram circumscribing a circle is a rhombus.
10. In the following figure, OP is equal to diameter of the circle. Prove that ABP is an equilateral triangle.



1. Draw a circle of diameter 6.4 cm. Then draw two tangents to the circle from a point P at a distance 6.4 cm from the centre of the circle.
2. Draw a circle of radius 3.4 cm. Draw two tangents to it inclinded at tn angle of 60° to each other:
3. Draw ΔABC in which AB = 3.8 cm, ∠B = 60° and median AD = 3.6 cm. Draw another triangle AB'C similar to the first such that $AB' = \left(\frac{4}{3}\right)AB.$
4. Draw an equiliateral triangle of height 3.6 cm. Draw another triangle similar to it such that its side is $\frac{2}{3}$ of the side of the first.

5. Draw an isosceles ΔABC, in which $AB = AC = 5.6$ cm and $\angle ABC = 60°$. Draw another $\Delta AB'C'$ similar to ΔABC such that $AB' = \left(\frac{2}{3}\right)AB$.