**ASSIGNMENT (2020-21)**

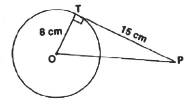
**CLASS - X SUBJECT – MATHEMATICS**

**CH- 10 (CIRCLES)**

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

(a) 16 cm  (b) 15 cm (c) 18 cm  (d) 17 cm

1. In the figure, Ab is a chord of length 16 cm, of a circle of radius 10 cm. The tangents at A and B intersect at a point P. Find the length of PA.



       (a) https://www.careerlauncher.com/cbse-ncert/class-10/10th-Math-Circle-mcq-UntitOE0.JPG       (b) https://www.careerlauncher.com/cbse-ncert/class-10/10th-Math-Circle-mcq-UntitOE1.JPG       (c) https://www.careerlauncher.com/cbse-ncert/class-10/10th-Math-Circle-mcq-UntitOE2.JPG     (d) https://www.careerlauncher.com/cbse-ncert/class-10/10th-Math-Circle-mcq-UntitOE3.JPG

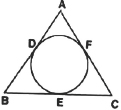
1. In the given figure, PA and PB are tangents from P to a circle with centre O. If ∠AOB = 130°, then find ∠APB.

  (a) 40°        (b) 55°        (c) 50°        (d) 60°

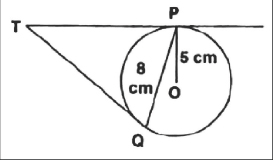
1. In the given figure, PT is a tangent to a circle whose centre is O. If PT = 12 cm and PO = 13 cm then find teh radius of the circle.

       (a) 5 cm        (b) 4 cm        (c) 6 cm        (d) 4.5 cm

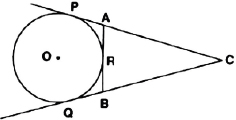
1. In the figure, if Ab = AC, prove that BE = CE.



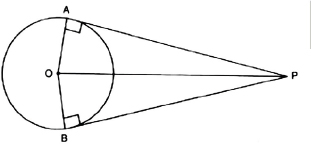
1. PQ is a chord of length 8 cm of a circle of radius 5 cm. The tangents at P and Q intersect at a point T. Find the length of TP.



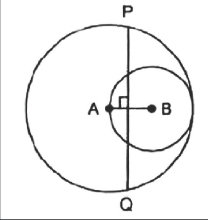
1. In the figure, CP and CQ are tangents to a circle with centre O. ARB is another tangent touching the circle at R. If QC = 11 cm, BC = 7 cm then find, teh length of BR.



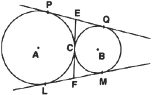
1. The two tangents from an external point P to a circle with centre O are PA and PB. If ∠APB = 70°, then what is the value of ∠AOB?
2. A circle is touching the side BC of a ABC at P and touchign AB and AC produced at Q and R.      Prove that:  https://www.careerlauncher.com/cbse-ncert/class-10/10th-Math-Circle-Sample-UntitOE7.JPG
3. In the following figure, OP is equal to diameter of the circle. Prove that ABP is an equilateral triangle.



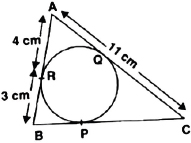
1. Prove that the tangents drawn at the ends of a chord of a cricle make equal angles with the chord.
2. In the figure, two circles with centres A and B and radii 5 cm and 3 cm touching each other internally. If the perpendicular bisector of segment AB, meets the bigger circle at P and Q, find the length of PQ.



1. In the following figure, two circle touch each other externally at C. Prove that the common tangent at C bisects the other two common tangents.



1. In the figure, ABC is circumscribing a circle. Find the length of BC.



1. In the figure, PA is a tangent from an external point P to a circle with centre O. If ∠POB = 115° then find ∠APO.

