9 Class Math Tuition Assignment

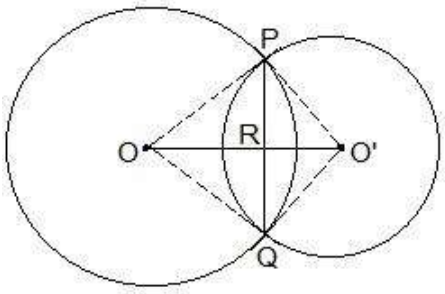
Assignment – 10

Assigned To = **All 9 Class Students**

Chapter = Circles

MM = 30

Q1. **If two circles intersect at two points, prove that their centres lie on the perpendicular bisector of the common chord.**



Q2. **Three girls, Reshma, Salma and Mandip, are playing a game by standing on a circle of radius 5m drawn in a park. Reshma throws a ball to Salma, Salma to Mandip, and Mandip to Reshma. If the distance between Reshma and Salma and between Salma and Mandip is 6m each, what is the distance between Reshma and Mandip?**

Q3. **A circular park of radius 20m is situated in a colony. Three boys, Ankur, Syed and David, are sitting at equal distances on its boundary, each having a toy telephone in his hands to talk to each other. Find the length of the string of each phone.**

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Q4. **Two circles intersect at two points, B and C. Through B, two line segments ABD and PBQ are drawn to intersect the circles at A, D and P, Q, respectively (see Fig. 10.40). Prove that ∠ ACP = ∠ QCD.**

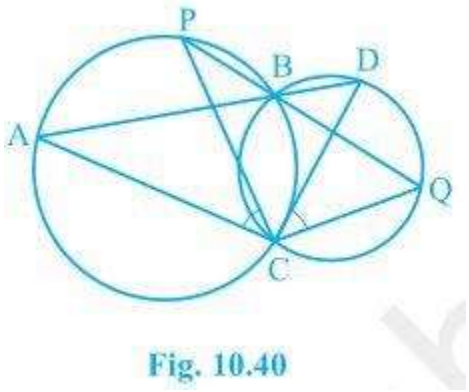
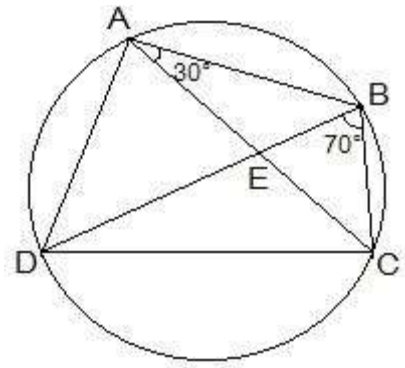
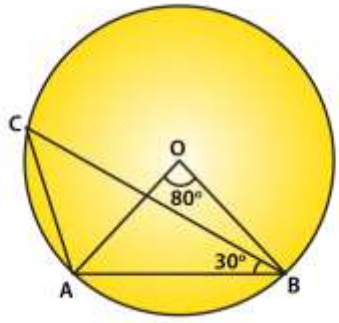


Fig. 10.40

Q5. **ABCD is a cyclic quadrilateral whose diagonals intersect at point E. If ∠ DBC = 70°, ∠ BAC is 30°, find ∠ BCD. Further, if AB = BC, find ∠ ECD.**



Q6. **In figure, if ∠AOB = 80° and ∠ABC=30°, then find ∠CAO.**



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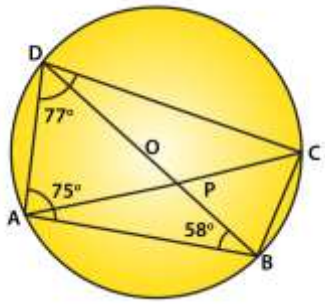
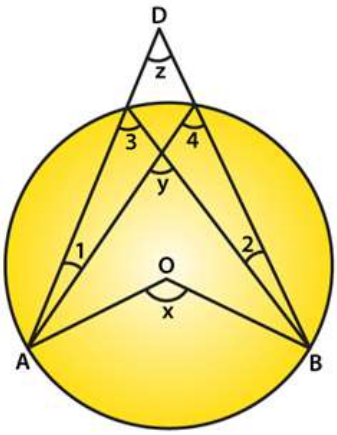
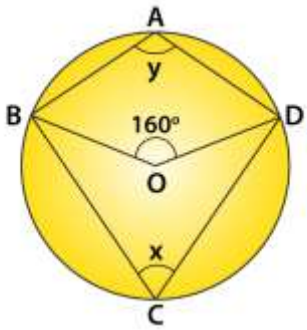
Q7. In figure, ABCD is a cyclic quadrilateral in which ∠BAD=75°, ∠ABD=58° and ∠ADC=77°, AC and BD intersect at P. Then, find ∠DPC.



Q8. In figure, O is the centre of the circle, then prove that ∠x = ∠y + ∠z.



Q9. In figure, O is the centre of the circle. If ∠BOD = 160°, find the values of x and y.



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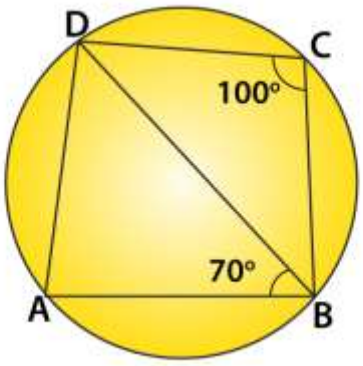
Q10. **In figure, ABCD is a cyclic quadrilateral. If ∠BCD = 100° and ∠ABD = 70°, find ∠ADB.**



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