BYJU'S

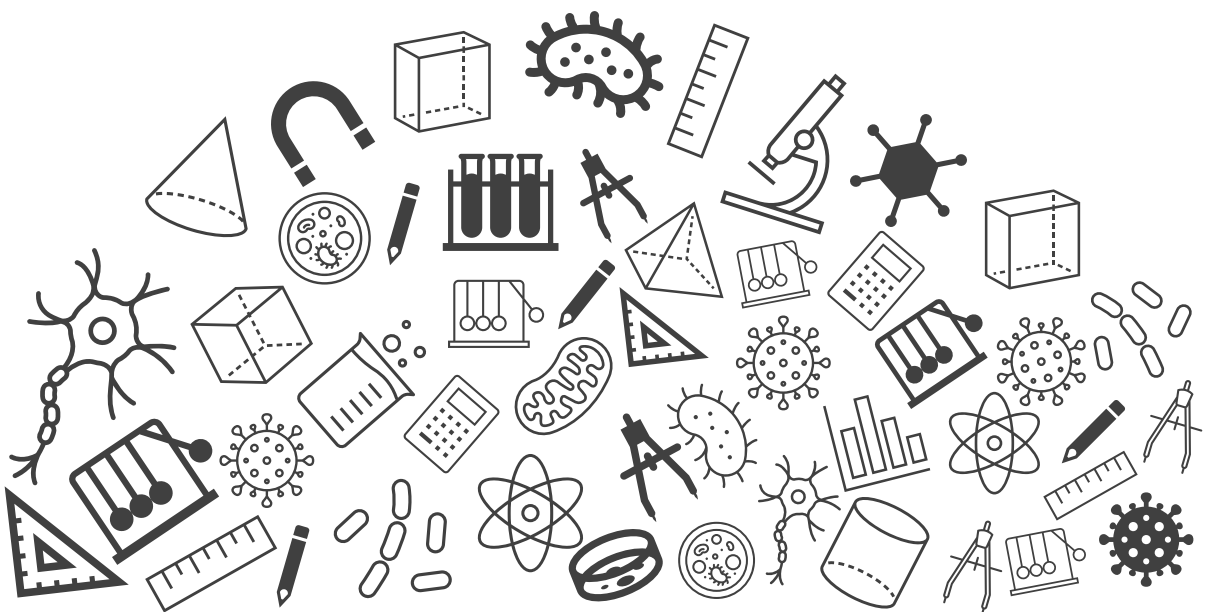# Grade 09: Maths
Exam Important Questions

Topic : **Exam Important Questions**

1. State whether the statement is True or False.
   "Equal chords subtends equal angle at the centre."
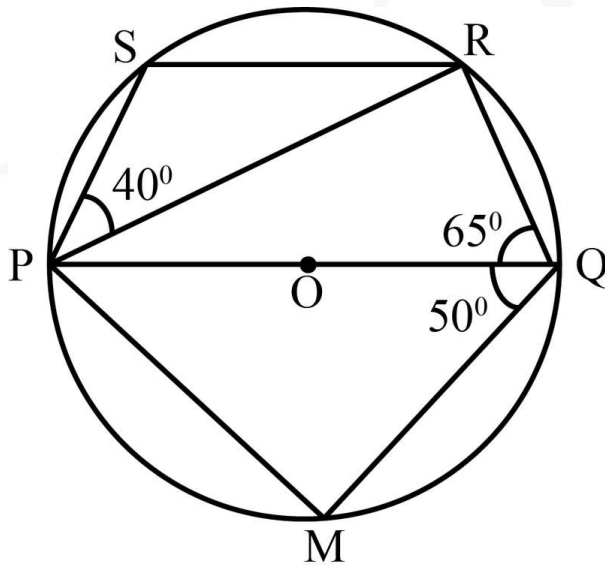   [1 Mark]

2. ABC and ADC are two right triangles with common hypotenuse AC. Prove that $\angle CAD = \angle CBD$.

   [4 marks]
   [NCERT]
   [Sum of Opposite Angles of a Cyclic Quadrilateral]

3. In the given figure, PQ is a diameter of a circle with centre O. If $\angle PQR = 65°, \angle SPR = 40°\ and\ \angle PQM = 50°,\ \text{find}\ \angle QPR, \angle QPM\ and\ \angle PRS$
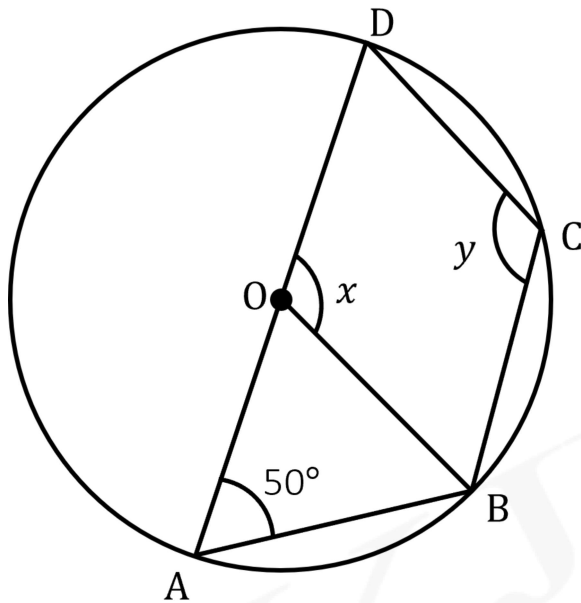

   [4 marks]
   [RS Agrawal]
   [Sum of Opposite Angles of a Cyclic Quadrilateral]

4. In the given figure, **O** is the centre of the circle and
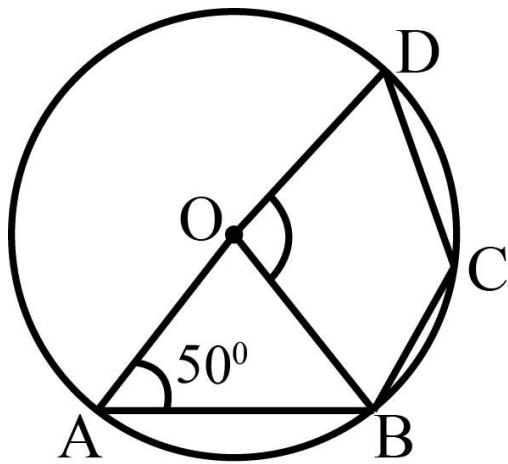   ∠**DAB** = **50°.** Calculate the values of x and y.

[4 marks]

[Sum of Opposite Angles of a Cyclic Quadrilateral]

5. Prove that if chords of congruent circles subtend equal angles at their centres, then the chords are equal.
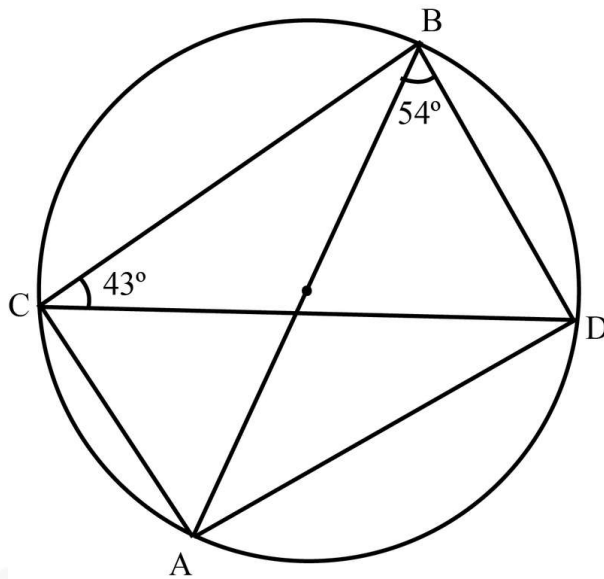 $[3\ Marks]$

    OR

    In the given figure, O is the centre of a circle and $\angle OAB = 50°$. If AD is a diameter, then find $\angle BOD$.

    $[3\ Marks]$

6.

In the given figure, $\angle ABD = 54°$ and $\angle BCD = 43°$,, calculate

(i) $\angle ACD$

(ii) $\angle BAD$

(iii) $\angle BDA$.

[3 marks]
[RS Agrawal]
[Angles in Same Segment of a Circle]

7. In a circle of radius 17 cm, two parallel chords are drawn on opposite side of a diameter. This distance between the chords is 23 cm. If the length of one chord is 16 cm then the length of the other is

[3 marks]
[RD Sharma]

8. In the adjoining figure, O is the centre of a circle. If AB and AC are chords of the circle such that AB = AC, OP ⊥ AB and
    OQ ⊥ AC, prove that PB = QC.
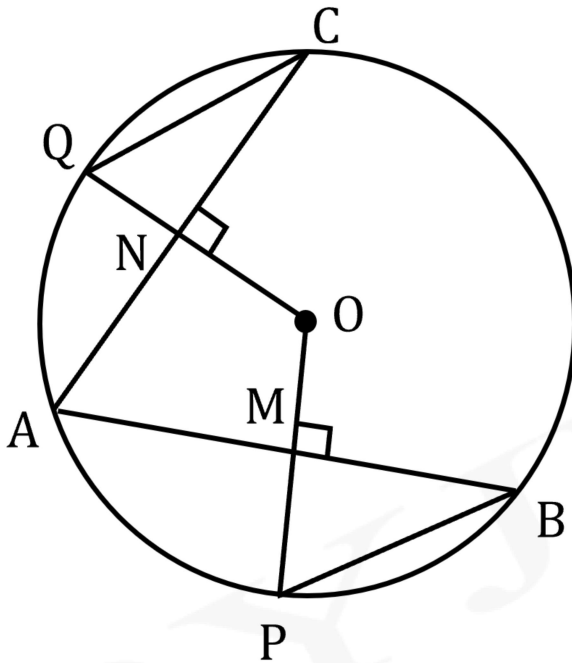
[3 marks]

[RS Agrawal]

[Equal Chords of a Circle are Equidistant from the Centre]