

CHAPTER-9 | : Circle

QUIZ
PART-11

Q1. In a cyclic quadrilateral, the sum of opposite angles is:

- A) 90°
- B) 180°
- C) 360°
- D) 270° (B)

Explanation: The sum of opposite angles in a cyclic quadrilateral is 180° .

2. The angle subtended by a diameter of a circle at the circumference is:

- A) 90°
- B) 45°
- C) 180°
- D) 60° (A)

Explanation: The angle subtended by a diameter at the circumference is always 90° .

3. Equal chords of a circle subtend equal angles at the center. This is known as:

- A) Angle Theorem
- B) Chord Theorem
- C) Midpoint Theorem
- D) Equal Chord Theorem (D)

Explanation: Equal chords subtend equal angles at the center (Equal Chord Theorem).

4. The opposite angles of a cyclic quadrilateral are always:

- A) Equal
- B) Supplementary
- C) Perpendicular
- D) Acute (B)

Explanation: The opposite angles of a cyclic quadrilateral are supplementary.

5. In a cyclic quadrilateral, the sum of all angles is:

- A) 180°
- B) 360°
- C) 270°
- D) 90° (B)

Explanation: The sum of all angles of a quadrilateral is 360° .

6. In a circle, if the two chords are equal, what can be concluded about the angles subtended at the center?

- A) They are equal
- B) They are unequal
- C) They are right angles
- D) They are complementary (A)

Explanation: Equal chords subtend equal angles at the center.

7. The angle subtended by a chord at the center is:

- A) Half of the angle at the circumference
- B) Equal to the angle at the circumference
- C) Double of the angle at the circumference
- D) None of the above (C)

Explanation: The angle at the center is twice the angle at the circumference.

8. A cyclic quadrilateral always has:

- A) Equal sides
- B) Opposite angles supplementary
- C) Right angles
- D) Parallel sides (B)

Explanation: In a cyclic quadrilateral, opposite angles are supplementary.

9. If the angle at the center is 80° , what is the angle at the circumference?

- A) 40°
- B) 80°
- C) 160°
- D) 90° (A)

Explanation: The angle at the circumference is half of the angle at the center ($80^\circ \div 2 = 40^\circ$).

10. If a quadrilateral is cyclic, the sum of the opposite angles is:

- A) 90°
- B) 180°
- C) 360°
- D) 270° (B)

Explanation: The sum of opposite angles in a cyclic quadrilateral is always 180° .