

CHAPTER-9 | : Circle

QUIZ
PART-10

1. A cyclic quadrilateral is one where:

- A) All sides are equal
- B) All vertices lie on a circle
- C) All angles are 90°
- D) The opposite sides are parallel (B)

Explanation: A cyclic quadrilateral has all its vertices on a circle.

2. The sum of opposite angles of a cyclic quadrilateral is:

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

Explanation: The sum of opposite angles of a cyclic quadrilateral is always 180° (Theorem 9.10).

3. According to Theorem 9.11, a quadrilateral is cyclic if:

- A) The sum of opposite angles is 90°
- B) The sum of opposite angles is 180°
- C) The quadrilateral is a square
- D) The quadrilateral has four equal sides (B)

Explanation: A quadrilateral is cyclic if the sum of opposite angles is 180° .

4. Which of the following is a property of a cyclic quadrilateral?

- A) Opposite angles are complementary
- B) Adjacent angles are supplementary
- C) The sum of the angles is 360°
- D) The sides are equal (B)

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

5. What is true about the circle in a cyclic quadrilateral?

- A) It contains inside
- B) It contains outside and passes through the vertices
- C) It passes through both vertices of one diagonal
- D) None of these (B)

Explanation: The circle in a cyclic quadrilateral passes through all the vertices of the quadrilateral.

6. In a cyclic quadrilateral, the sum of each pair of opposite angles is:

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

Explanation: The sum of each pair of opposite angles is 180° .

7. In a cyclic quadrilateral, if one angle is 120° , what is the opposite angle?

- A) 120°
- B) 60°
- C) 90°
- D) 180° (B)

Explanation: The opposite angle will be 60° as the sum of opposite angles in a cyclic quadrilateral is 180° .

8. Which of the following is a condition for a quadrilateral to be cyclic?

- A) All sides must be equal
- B) Sum of opposite angles must be 180°
- C) All angles must be 90°
- D) It must have parallel opposite sides (B)

Explanation: For a quadrilateral to be cyclic, the sum of opposite angles must be 180° .

9. The opposite angles of a cyclic quadrilateral are:

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

Explanation: The opposite angles of a cyclic quadrilateral are supplementary (sum to 180°).

10. Which of the following is true about cyclic quadrilaterals?

- A) They always have equal sides
- B) They always have right angles
- C) The opposite angles are supplementary
- D) The diagonals are equal (C)

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