

CHAPTER-9 | : Circle

QUIZ
PART-14

1. In the given diagram, if $\angle ABC = 69^\circ$ and $\angle ACB = 31^\circ$, what is $\angle BDC$?

- A) 50°
B) 100°
C) 70°
D) 80° (B)

Explanation: Using the properties of cyclic quadrilaterals, $\angle BDC = 100^\circ$.

2. In the diagram where AC and BD intersect at point E, if $\angle BEC = 130^\circ$ and $\angle ECD = 20^\circ$, what is $\angle BAC$?

- A) 20°
B) 50°
C) 70°
D) 60° (B)

Explanation: By applying the angle properties, $\angle BAC = 50^\circ$.

3. In a cyclic quadrilateral ABCD, if $\angle DBC = 70^\circ$ and $\angle BAC = 30^\circ$, what is $\angle BCD$?

- A) 90°
B) 60°
C) 80°
D) 100° (C)

Explanation: The angle $\angle BCD = 80^\circ$ based on the cyclic properties.

4. If $AB = BC$ and $\angle BAC = 30^\circ$, what is $\angle ECD$ in the cyclic quadrilateral ABCD?

- A) 20°
B) 40°
C) 50°
D) 60° (A)

Explanation: $\angle ECD = 20^\circ$ by applying angle properties and symmetry of the cyclic quadrilateral.

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

- A) 180°
B) 90°
C) 360°
D) 270° (A)

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

6. In a cyclic quadrilateral ABCD, the diagonals intersect at point E. If $\angle DBC = 70^\circ$ and $\angle BAC = 30^\circ$, what is $\angle BCD$?

- A) 60°
B) 90°
C) 120°
D) 80° (D)

Explanation: $\angle BCD = 80^\circ$ as per cyclic quadrilateral properties.

7. In a cyclic quadrilateral, the sum of the interior angles is:

- A) 180°
B) 360°
C) 270°
D) 90° (B)

Explanation: The sum of the interior angles of any quadrilateral is 360° .

8. If in a cyclic quadrilateral, $\angle ABC = 60^\circ$ and $\angle ADC = 120^\circ$, what is the sum of the opposite angles?

- A) 180°
B) 360°
C) 270°
D) 90° (A)

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

9. In a cyclic quadrilateral ABCD, if $AB = BC$, what is the relationship between $\angle ABC$ and $\angle BCD$?

- A) They are equal
B) $\angle ABC > \angle BCD$
C) $\angle ABC < \angle BCD$
D) They are complementary (A)

Explanation: If $AB = BC$, then $\angle ABC = \angle BCD$ due to symmetry.

10. If the diagonals of a cyclic quadrilateral intersect at E, and $\angle DBC = 70^\circ$ and $\angle BAC = 30^\circ$, what is $\angle BCD$?

- A) 90°
B) 120°
C) 80°
D) 100° (C)

Explanation: $\angle BCD = 80^\circ$ based on the properties of cyclic quadrilaterals and their angles.