

## CHAPTER-9 | : Circle

QUIZ  
PART-12

**1. In Example 4, if two circles intersect at A and B, and AD and AC are diameters, what is proven?**

- A) AB is the diameter
- B) B lies on line segment DC
- C) A and B are equal distances from the center
- D) The circles are congruent (B)

**Explanation:** The proof shows that point B lies on the line segment DC when two circles intersect.

**2. According to Example 5, the quadrilateral formed by internal angle bisectors of any quadrilateral is:**

- A) Always a rectangle
- B) Always cyclic
- C) Always a square
- D) None of the above (B)

**Explanation:** Example 5 proves that the quadrilateral formed by the internal angle bisectors of any quadrilateral is cyclic.

**3. In Example 4, the point where two circles intersect is labeled as:**

- A) A
- B) B
- C) C
- D) D (B)

**Explanation:** The intersection points of the two circles are labeled as A and B.

**4. The internal angle bisectors of a quadrilateral form a cyclic quadrilateral if:**

- A) The quadrilateral is a parallelogram
- B) The sum of opposite angles is  $180^\circ$
- C) The quadrilateral is cyclic
- D) The quadrilateral has parallel sides (B)

**Explanation:** The quadrilateral formed by the angle bisectors is cyclic if the sum of opposite angles is  $180^\circ$ .

**5. In the intersection of two circles, if AD and AC are diameters, what is a key result?**

- A) The intersection is at the center
- B) The intersection occurs along the radius
- C) The intersection points lie on the line joining the centers
- D) The intersection points lie on a tangent (C)

**Explanation:** The intersection points lie on the line joining the centers of the two circles.

**6. The quadrilateral formed by the angle bisectors of any quadrilateral is cyclic when:**

- A) It is a rectangle
- B) It satisfies the conditions of Theorem 9.11
- C) The sum of its opposite angles is  $360^\circ$
- D) None of the above (B)

**Explanation:** The quadrilateral formed by the angle bisectors is cyclic according to Theorem 9.11.

**7. The line joining the centers of two intersecting circles is:**

- A) Perpendicular to both chords
- B) The common chord
- C) Parallel to the diameter
- D) The perpendicular bisector of the common chord (D)

**Explanation:** The line joining the centers of two intersecting circles is the perpendicular bisector of the common chord.

**8. In Example 5, what is proven about the internal angle bisectors of a quadrilateral?**

- A) They form a right-angled triangle
- B) They divide the quadrilateral into two equal areas
- C) They form a cyclic quadrilateral
- D) They form an isosceles triangle (C)

**Explanation:** The internal angle bisectors form a cyclic quadrilateral.

**9. When two circles intersect, what is true about the line through their centers?**

- A) It bisects the common chord
- B) It is tangent to both circles
- C) It is equal in length to the radius
- D) It does not intersect the common chord (A)

**Explanation:** The line joining the centers of two intersecting circles bisects the common chord.

**10. The quadrilateral formed by the angle bisectors of a general quadrilateral is always:**

- A) A rectangle
- B) A cyclic quadrilateral
- C) A square
- D) A rhombus (B)

**Explanation:** The quadrilateral formed by the angle bisectors is always cyclic.