

CHAPTER-9 | : Circle

QUIZ
PART-04**1. The perpendicular from the center to a chord:**

- A) Bisects the chord
- B) Is parallel to the chord
- C) Divides the circle into two equal parts
- D) Is equal to the radius (A)

Explanation: The perpendicular from the center bisects the chord.

2. The perpendicular from the center of a circle to a chord is:

- A) Longer than the radius
- B) Equal to the radius
- C) Perpendicular to the tangent
- D) Shorter than the radius (D)

Explanation: The perpendicular from the center is shorter than the radius.

3. What is formed when a perpendicular is drawn from the center to a chord?

- A) A square
- B) Two equal chords
- C) Two equal segments
- D) Two right triangles (D)

Explanation: The perpendicular forms two right triangles.

4. If OT is perpendicular to chord AB, what does OT do to AB?

- A) Bisects AB
- B) Forms an obtuse angle with AB
- C) Makes AB equal to the radius
- D) Makes AB a tangent (A)

Explanation: OT bisects chord AB.

5. If the center of the circle is O and OT is perpendicular to chord AB, then OT is:

- A) Equal to AB
- B) Longer than AB
- C) The perpendicular bisector of AB
- D) Parallel to AB (C)

Explanation: OT bisects AB, making it the perpendicular bisector.

6. If OT is perpendicular to chord AB, what is true about angles OAT and OBT?

- A) They are equal
- B) OAT is larger
- C) OBT is larger
- D) They are complementary (A)

Explanation: The angles OAT and OBT are equal.

7. A chord bisected by the perpendicular from the center of the circle forms:

- A) Two equal chords
- B) Two equal segments
- C) Two equal angles
- D) Two unequal segments (B)

Explanation: The perpendicular bisects the chord into two equal segments.

8. What does the perpendicular from the center of the circle to the chord create?

- A) Two unequal angles
- B) Two equal arcs
- C) Two unequal arcs
- D) A straight line (B)

Explanation: The perpendicular bisects the chord, creating two equal arcs.

9. The perpendicular from the center of a circle to a chord is always:

- A) Longer than the chord
- B) Shorter than the radius
- C) Equal to the radius
- D) Equal to the length of the chord (B)

Explanation: The perpendicular is always shorter than the radius.

10. What is true about two right-angled triangles formed by a perpendicular from the center of a circle to a chord?

- A) They are congruent
- B) They are similar
- C) They are scalene
- D) They are not related (A)

Explanation: The two right-angled triangles formed are congruent.