

CHAPTER-8 | : Quadrilaterals

QUIZ PART-15

1. What does the Mid-point Theorem state?

- A) Half the third side
- B) Parallel to the third side
- C) Equal to the third side
- D) Perpendicular to the third side (B)

Explanation: The line joining midpoints is parallel to the third side.

2. In triangle ABC, if D and E are midpoints, what is DE?

- A) Equal to BC
- B) Parallel to BC
- C) Half of BC
- D) Perpendicular to BC (C)

Explanation: $DE = \frac{1}{2} BC$ by the Mid-point Theorem.

3. Joining the midpoints of a triangle's sides forms a:

- A) Parallelogram
- B) Square
- C) Rectangle
- D) Triangle (A)

Explanation: It forms a parallelogram.

4. What is true about the area of the smaller triangle formed by midpoints?

- A) Same as original
- B) Half of original
- C) One-fourth of original
- D) Double the original (C)

Explanation: The smaller triangle has one-fourth of the original's area.

5. What happens when midpoints of a parallelogram's sides are joined?

- A) Rectangle
- B) Square
- C) Parallelogram
- D) Rhombus (C)

Explanation: It forms another parallelogram.

6. In a rhombus, the diagonals:

- A) Are perpendicular
- B) Are parallel
- C) Are equal
- D) Do not bisect (A)

Explanation: The diagonals bisect each other at right angles in a rhombus.

7. In triangle ABC, if D and E are midpoints, DE is:

- A) Parallel to AB
- B) Parallel to BC
- C) Parallel to AC
- D) Perpendicular to BC (B)

Explanation: DE is parallel to BC according to the Mid-point Theorem.

8. What does joining the midpoints of a quadrilateral's sides form?

- A) Rhombus
- B) Rectangle
- C) Parallelogram
- D) Square (C)

Explanation: It forms a parallelogram.

9. In triangle ABC, if D and E are midpoints of AB and AC, then DE is:

- A) Equal to BC
- B) Half of BC
- C) Longer than BC
- D) Perpendicular to BC (B)

Explanation: $DE = \frac{1}{2} BC$.

10. What is true about the triangles formed by joining the midpoints of a triangle?

- A) Similar
- B) Congruent
- C) Scalene
- D) Right-angled (B)

Explanation: The triangles formed are congruent.