

CHAPTER-8 | : Quadrilaterals

QUIZ PART-II

1. What does the Mid-point Theorem state?

- A) The segment is parallel to the third side
- B) The segment is perpendicular to the third side
- C) The segment is equal to the third side
- D) The segment is half the third side (A)

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

2. What is the length of DE if BC = 8 cm in triangle ABC?

- A) 4 cm
- B) 8 cm
- C) 16 cm
- D) 2 cm (A)

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

3. In a triangle, the line joining midpoints of two sides is:

- A) Equal to the third side
- B) Parallel to the third side
- C) Perpendicular to the third side
- D) None of the above (B)

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

4. What does the Mid-point Theorem help prove?

- A) Pythagoras Theorem
- B) Basic Proportionality Theorem
- C) Angle Bisector Theorem
- D) None of the above (B)

Explanation: It helps prove the Basic Proportionality Theorem.

5. In triangle ABC, if D and E are midpoints, what is DE related to BC?

- A) $DE = BC$
- B) $DE = 2 BC$
- C) $DE = \frac{1}{2} BC$
- D) DE is perpendicular to BC (C)

Explanation: DE is half the length of BC.

6. What is true about the areas of triangles formed by the midline?

- A) They are equal
- B) One is half the other
- C) One is twice the other
- D) None of the above (A)

Explanation: The areas of the two smaller triangles are equal.

7. What type of triangle is formed by the midline in a triangle?

- A) Similar triangle
- B) Isosceles triangle
- C) Scalene triangle
- D) Right triangle (A)

Explanation: The smaller triangle formed is similar to the original triangle.

8. The Mid-point Theorem applies to:

- A) Only right-angled triangles
- B) Only equilateral triangles
- C) All triangles
- D) Only scalene triangles (C)

Explanation: The theorem applies to all triangles.

9. In a parallelogram, the diagonals bisect each other. This is a property of:

- A) Square
- B) Rectangle
- C) Rhombus
- D) All parallelograms (D)

Explanation: In all parallelograms, diagonals bisect each other.

10. If DE is the midline in triangle ABC, then DE is:

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

Explanation: DE is parallel to BC.