

CHAPTER-6 | Triangles

QUIZ PART-01

1. Which of the following triangles have the same side lengths?
- Scalene
 - Isosceles
 - Equilateral
 - None of these (C)

Explanation: Equilateral triangles have all sides equal.

2. Which of the following are not similar figures?
- Circles
 - Squares
 - Equilateral triangles
 - Isosceles triangles (D)

Explanation: Isosceles triangles are not necessarily similar as their sides can differ.

3. All similar figures are congruent.
- True
 - False
 - Squares
 - Circles (B)

Explanation: Similar figures need not be congruent; they only have the same shape but not necessarily the same size.

4. Which of the following shapes are always similar?
- Two squares
 - Two circles
 - Two equilateral triangles
 - All of these (D)

Explanation: All these shapes are always similar due to their consistent shape properties.

5. What condition is required for two polygons to be similar?
- Corresponding angles must be equal
 - Corresponding sides must be proportional
 - Both A and B
 - None of these (C)

Explanation: Two polygons are similar if their corresponding angles are equal and their sides are in the same ratio.

6. If two polygons are similar, then:
- Their corresponding angles are equal
 - Their corresponding sides are in the same ratio
 - Both A and B
 - Neither A nor B (C)

Explanation: For similarity, both the angles and sides must meet these conditions.

7. Which of these figures is always similar to another?
- Circle
 - Rectangle
 - Square
 - Rhombus (A)

Explanation: All circles are similar regardless of their size.

8. Which shape is always similar to another when the size changes, but the shape remains the same?
- Circle
 - Triangle
 - Square
 - All of these (D)

Explanation: All these shapes can be similar when their shape remains consistent, irrespective of size.

9. What is true for similar triangles?
- Corresponding angles are equal
 - Corresponding sides are proportional
 - Both A and B
 - Neither A nor B (C)

Explanation: For two triangles to be similar, both corresponding angles must be equal and their corresponding sides must be proportional.

10. Which of the following is a correct example of similar polygons?
- Two rectangles with the same length but different widths
 - Two equilateral triangles of different sizes
 - Two squares with different areas
 - Two circles of different sizes (B)

Explanation: Two equilateral triangles of different sizes are similar because they have the same shape.