

CHAPTER-7 | Area

QUIZ
PART-16

1. A parallelogram can be converted into a rectangle of equal area by:
- Stretching it
 - Cutting and rearranging its parts
 - Folding it into half
 - Increasing its height

(B)

Explanation : A parallelogram can be dissected and rearranged into a rectangle without changing its area.

2. The process of cutting a figure into pieces and rearranging them to form another figure of equal area is called:

- Reflection
- Rotation
- Dissection
- Translation

(C)

Explanation: Dissection changes the shape while preserving the total area.

3. When a parallelogram is converted into a rectangle of equal area, which measurement remains unchanged?

- Area
- Perimeter
- Side lengths
- Angles

(A)

Explanation: Dissection preserves the area but may change the shape and perimeter.

4. The area of a parallelogram depends on:

- Base and corresponding height
- Length and breadth
- All four sides
- Diagonals only

(A)

Explanation: Area of a parallelogram = Base $\times$ Corresponding Height.

5. Which statement about the rectangle formed after dissection is correct?

- It has the same area as the original parallelogram.
- It has a greater area.
- It has half the area.
- Its area cannot be determined.

(A)

Explanation : Rearranging pieces does not change the enclosed area.

6. The height of a parallelogram is the:

- Length of any side
- Perpendicular distance between the parallel sides
- Sum of opposite sides
- Length of a diagonal

(B)

Explanation : Height is always measured perpendicular to the chosen base.

7. Which formula correctly represents the area of a parallelogram?

- Base $\times$ Height
- $\frac{1}{2} \times$ Base $\times$ Height
- Length $\times$ Breadth
- $\frac{1}{2} \times$ Product of Diagonals

(A)

Explanation : The standard formula for the area of a parallelogram is Base $\times$ Height.

8. During dissection, the triangular piece removed from one side is:

- Discarded
- Shifted to the opposite side
- Divided into two parts
- Enlarged

(B)

Explanation : The triangle is moved to the opposite side to form a rectangle.

9. Which quantity may change after converting a parallelogram into a rectangle?

- Area
- Shape
- Number of square units
- Region covered

(B)

Explanation : Only the shape changes; the area remains constant.

10. Which statement is true about dissection?

- Area increases after rearrangement.
- Area decreases after rearrangement.
- Area remains equal after rearrangement.
- Area becomes double after rearrangement.

(C)

Explanation : Dissection preserves the total area because no part is added or removed.