1. A parallelogram can be converted into a rectangle of equal area by:
   A. Folding it into half
   B. Cutting and rearranging its parts
   C. Increasing its height
   D. Doubling its base (B)

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

2. The area of a parallelogram is equal to:
   A. Side × Side
   B. Base × Corresponding Height
   C. Length × Breadth
   D. Half × Base × Height (B)

Explanation: The area of a parallelogram depends on its base and the perpendicular height.

3. In the dissection method, the triangular piece cut from one side is:
   A. Removed completely
   B. Shifted to the opposite side
   C. Divided into two parts
   D. Folded inside the figure (B)

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

4. The rectangle formed after dissecting a parallelogram has:
   A. A greater area
   B. A smaller area
   C. The same area
   D. Double the area (C)

Explanation: Dissection changes only the shape, not the enclosed area.

5. In the rectangle obtained after dissection, its length is equal to the:
   A. Height of the parallelogram
   B. Base of the parallelogram
   C. Diagonal of the parallelogram
   D. Perimeter of the parallelogram (B)

Explanation : The base of the parallelogram becomes the length of the rectangle.

6. The height of a parallelogram is the:
   A. Slant side
   B. Perpendicular distance between the parallel sides
   C. Longer side
   D. Diagonal (B)

Explanation : Height is measured at a right angle to the chosen base.

7. A parallelogram can have different choices of base. Its area:
   A. Changes with the base
   B. Remains the same if the corresponding height is used
   C. Doubles each time
   D. Becomes half (B)

Explanation : Using any side as the base with its corresponding perpendicular height gives the same area.

8. Which statement about dissection is correct?
   A. It changes the number of square units.
   B. It preserves the total area.
   C. It always preserves the perimeter.
   D. It increases the height. (B)

Explanation : Dissection rearranges pieces without changing the total area.

9. After converting a parallelogram into a rectangle, the correct area formula is:
   A. Length + Breadth
   B. Length × Breadth
   C. 2(Length + Breadth)
   D. Side × Side (B)

Explanation : The rectangle formed has the same area, so Length × Breadth = Base × Height.

10. A parallelogram is cut along the height from one vertex, and the triangular piece is shifted to the opposite side. The new figure formed is a:
    A. Triangle with the same area
    B. Rectangle with the same area
    C. Trapezium with a larger area
    D. Square with double the area (B)

Explanation : This dissection transforms the parallelogram into a rectangle while preserving its area.