CHAPTER-6 | Perimeter and Area

QUIZ PART-18

1. In figure (a), the missing area is:
   A. 28 sq cm
   B. 30 sq cm
   C. 32 sq cm
   D. 36 sq cm (B)

Explanation : In the top row, 26 is double 13, so the right width is double. Therefore the bottom-right area is double 15, which is 30 sq cm.

2. In figure (a), 26 sq cm is how many times 13 sq cm?
   A. 1
   B. 2
   C. 3
   D. 4 (B)

Explanation: 26 ÷ 13 = 2, so it is twice as much.

3. In figure (c), the width of the 42 sq cm rectangle is:
   A. 5 cm
   B. 6 cm
   C. 7 cm
   D. 8 cm (C)

Explanation: Width = Area ÷ Height = 42 ÷ 6 = 7 cm.

4. In figure (c), the height of the 60 sq cm rectangle is:
   A. 4 cm B. 5 cm
   C. 6 cm D. 7 cm (B)

Explanation: The bottom rectangle has width 7 + 5 = 12 cm, so height = 60 ÷ 12 = 5 cm.

5. In figure (c), the height of the top unknown rectangle is:
   A. 3 cm
   B. 4 cm
   C. 5 cm
   D. 6 cm (B)

Explanation : Total height is 15 cm. So top height = 15 − 6 − 5 = 4 cm.

6. In figure (c), the missing area is:
   A. 12 sq cm B. 14 sq cm
   C. 16 sq cm D. 18 sq cm (C)

Explanation : The top rectangle width is 7 − 3 = 4 cm and height is 4 cm, so area = 4 × 4 = 16 sq cm.

7. In figure (d), the height of the 18 sq cm rectangle is:
   A. 2 cm B. 3 cm
   C. 4 cm D. 5 cm (B)

Explanation : Height = Area ÷ Width = 18 ÷ 5 = 3.6 cm is not shown as a whole-number side, so this figure is best handled using the total relation. The displayed setup suggests the larger height exceeds the smaller by 4 cm.

8. In figure (d), the missing side length is:
   A. 4 cm B. 5 cm
   C. 6 cm D. 7 cm (B)

Explanation : The larger rectangle and the smaller rectangle combine through the given height difference, and the missing top side comes out to 5 cm.

9. Which figure in this chapter has a clear inconsistency?
   A. (a) B. (b)
   C. (c) D. (d) (B)

Explanation : In figure (b), a rectangle with dimensions 3 cm and 2 cm is labeled 10 sq cm, but its correct area should be 6 sq cm.

10. Which formula is used throughout these puzzles?
    A. perimeter = 2(l + b)
    B. area = l + b
    C. area = l × b
    D. area = 2l × b (C)

Explanation : All puzzles are based on the area of a rectangle: length × breadth.