SUBJECT: Maths                                         STD- 4th
Prepared By: Rajni Yadav                              Lno-5 (Perimeter and area)
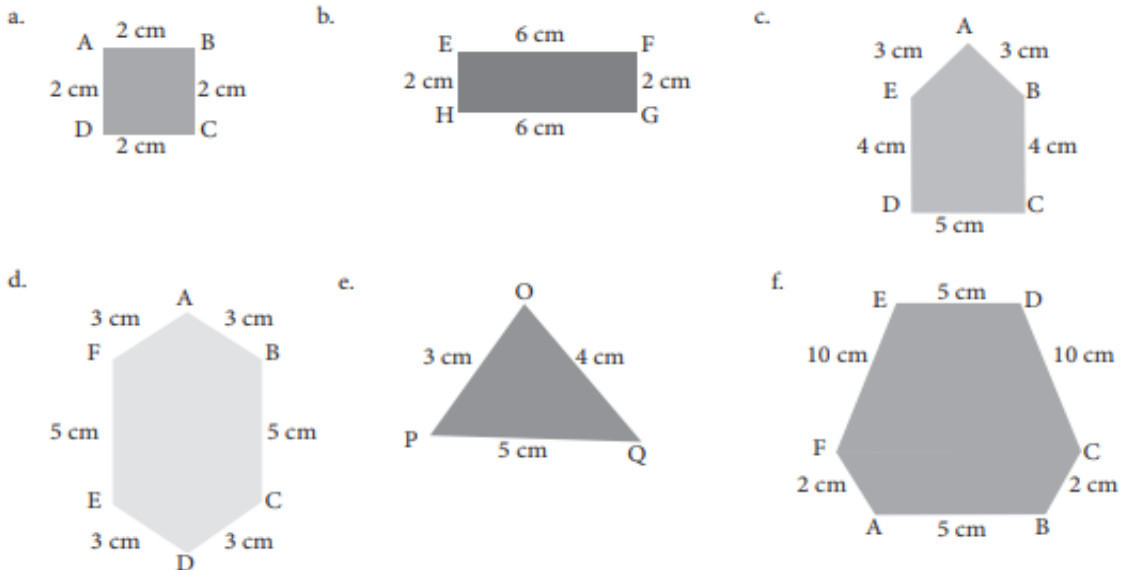
**Pre activity-** Do the lets get started page no 132 in textbook.

**Exercise 5A**

1. **Find the perimeter of the following shapes.**



**Solution:**

a. Perimeter of square ABCD = 2 cm + 2 cm + 2 cm + 2 cm = 8 cm

b. Perimeter of rectangle EFGH = 6 cm + 2 cm + 6 cm + 2 cm = 16 cm

c. Perimeter of pentagon ABCDE = 3 cm + 3 cm + 4 cm + 5 cm + 4 cm = 19 cm

d. Perimeter of hexagon ABCDEF = 3 cm + 3 cm + 5 cm + 3 cm + 3 cm + 5 cm = 22 cm

e. Perimeter of triangle OPQ = 3 cm + 4 cm + 5 cm = 12 cm

f. Perimeter of ABCDEF = 5 cm + 2 cm + 10 cm + 5 cm + 10 cm + 2 cm = 34 cm

**Exercise 5B**

1. **Find the perimeter of the squares with the given sides.**
   a. 4 cm       b. 6 cm          c. 14 cm       d. 18 cm

   **Solution:**
   a. Perimeter of square = 4 × side = 4 × 4 = 16 cm
   b. Perimeter of square = 4 × side = 4 × 6 = 24 cm
   c. Perimeter of square = 4 × side = 4 × 14 = 56 cm
   d. Perimeter of square = 4 × side = 4 × 18 = 72 cm

2. **Find the perimeter of the rectangles with the given lengths and breadths.**
   a. Length = 5 cm, breadth = 2 cm
   b. Length = 7 cm, breadth = 3 cm
   c. Length = 9 cm, breadth = 5 cm
   d. Length = 12 cm, breadth = 7 cm

    c. Area of rectangle = $l \times b$ = 13 × 7 = 91 cm²
    d. Area of rectangle = $l \times b$ = 19 × 8 = 152 cm²
    e. Area of rectangle = $l \times b$ = 20 × 10 = 200 cm²
    f. Area of rectangle = $l \times b$ = 24 × 6 = 144 cm²

2. **Find the area of the squares with the given sides.**
    a. 5 cm          b. 8 cm          c. 15 cm
    d. 24 cm        e. 32 cm

**Solution:**
    a. Area of square = $s \times s$ = 5 × 5 = 25 cm²
    b. Area of square = $s \times s$ = 8 × 8 = 64 cm²
    c. Area of square = $s \times s$ = 15 × 15 = 225 cm²
    d. Area of square = $s \times s$ = 24 × 24 = 576 cm²
    e. Area of square = $s \times s$ = 32 × 32 = 1024 cm²

**Solution:**
    a. Perimeter of rectangle
      = 2 × $(l + b)$ = 2 × (5 + 2) = 2 × 7 = 14 cm
    b. Perimeter of rectangle = 2 × $(l + b)$ = 2 × (7 + 3)
      = 2 × 10 = 20 cm
    c. Perimeter of rectangle = 2 × $(l + b)$ = 2 × (9 + 5)
      = 2 × 14 = 28 cm
    d. Perimeter of rectangle = 2 × $(l + b)$ = 2 × (12 + 7)
      = 2 × 19 = 38 cm

3. **Find the perimeter of the triangles with the given sides.**
    a. 5 cm, 4 cm, 3 cm        b. 8 cm, 9 cm, 12 cm
    c. 11 cm each            d. 15 cm each

**Solution:**
    a. Perimeter of triangle = 5 + 4 + 3 = 12 cm
    b. Perimeter of triangle = 8 + 9 + 12 = 29 cm
    c. Perimeter of triangle = 11 + 11 + 11 = 33 cm
    d. Perimeter of triangle = 15 + 15 + 15 = 45 cm

4. **Find the side of the squares with the following perimeters.**
    a. 12 cm    b. 20 cm        c. 28 cm       d. 52 cm

**Solution:**
    a. Side of square = $\dfrac{\text{Perimeter}}{4}$ = $\dfrac{12}{4}$ = 3 cm

    b. Side of square = $\dfrac{\text{Perimeter}}{4}$ = $\dfrac{20}{4}$ = 5 cm

    c. Side of square = $\dfrac{\text{Perimeter}}{4}$ = $\dfrac{28}{4}$ = 7 cm

    d. Side of square = $\dfrac{\text{Perimeter}}{4}$ = $\dfrac{52}{4}$ = 13 cm

5. **Find the length of the rectangles with the following perimeters and breadths.**
    a. Perimeter = 14 cm, breadth = 2 cm
    b. Perimeter = 20 cm, breadth = 4 cm

**Solution:**
    a. Length of rectangle = $\dfrac{\text{Perimeter} - 2b}{2}$

      = $\dfrac{14 - (2 \times 2)}{2}$ = $\dfrac{14 - 4}{2}$ = $\dfrac{10}{2}$ = 5 cm

    b. Length of rectangle = $\dfrac{\text{Perimeter} - 2b}{2}$

      = $\dfrac{20 - (2 \times 4)}{2}$ = $\dfrac{20 - 8}{2}$ = $\dfrac{12}{2}$ = 6 cm

## Exercise 5C

1. **Find the area of the rectangles with the given lengths and breadths.**
    a. Length = 5 cm, breadth = 3 cm
    b. Length = 8 cm, breadth = 5 cm
    c. Length = 13 cm, breadth = 7 cm
    d. Length = 19 cm, breadth = 8 cm
    e. Length = 20 cm, breadth = 10 cm
    f. Length = 24 cm, breadth = 6 cm

**Solution:**
    a. Area of rectangle = $l \times b$ = 5 × 3 = 15 cm²
    b. Area of rectangle = $l \times b$ = 8 × 5 = 40 cm²
    c. Area of rectangle = $l \times b$ = 13 × 7 = 91 cm²
    d. Area of rectangle = $l \times b$ = 19 × 8 = 152 cm²

e. Area of rectangle = $l \times b = 20 \times 10 = 200$ cm$^2$
f. Area of rectangle = $l \times b = 24 \times 6 = 144$ cm$^2$
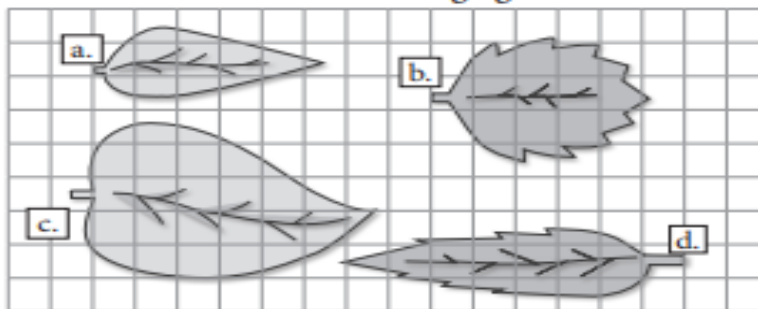
2. **Find the area of the squares with the given sides.**

   a. 5 cm      b. 8 cm      c. 15 cm

   d. 24 cm      e. 32 cm

   **Solution:**

   a. Area of square = $s \times s = 5 \times 5 = 25$ cm$^2$
   b. Area of square = $s \times s = 8 \times 8 = 64$ cm$^2$
   c. Area of square = $s \times s = 15 \times 15 = 225$ cm$^2$
   d. Area of square = $s \times s = 24 \times 24 = 576$ cm$^2$
   e. Area of square = $s \times s = 32 \times 32 = 1024$ cm$^2$

3. **Find the area of the following figures.**



   **Solution:**
   a. Number of completely filled squares = 2
      Number of more than half-filled squares = 4
      Thus, area of the figure = 2 + 4 = 6 cm$^2$
   b. Number of completely filled squares = 11
      (considering more than half-filled squares as completely filled squares)
      Thus, area of the figure = 11 cm$^2$
   c. Number of completely filled squares = 17
      (considering more than half-filled squares as completely filled squares)
      Number of half-filled squares = 6 (Consider only half of this)
      Thus, area of the figure = 17 + (6 ÷ 2) = 17 + 3 = 20 cm$^2$
   d. Number of completely filled squares = 6
      (considering more than half-filled squares as completely filled squares)
      Number of half-filled squares = 1 (Consider only half of this)
      Thus, area of the figure = 6 + (1 ÷ 2) = 6 + 0.5 = 6.5 cm$^2$

**Post activity-** Write the key concepts of page no 140.
       1) Find out the Perimeter and area of your Study Table.

**TEACHER**      **HOD**      **COORDINATOR**      **PRINCIPAL**