
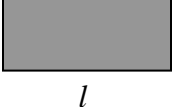
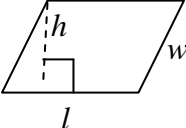
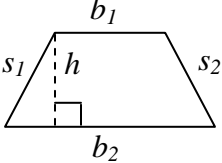
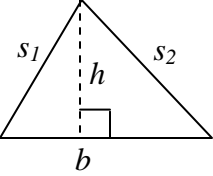
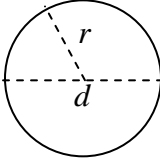


Geometry Formulas Areas and Perimeters

Figure	Sketch	Area	Perimeter
Square		$A = s^2$	$P = 4s$
Rectangle		$A = lw$	$P = 2l + 2w$
Parallelogram		$A = lh$	$P = 2l + 2w$
Trapezoid		$A = \frac{1}{2}h(b_1 + b_2)$	$P = s_1 + s_2 + b_1 + b_2$
Triangle		$A = \frac{1}{2}bh$	$P = s_1 + s_2 + b$

Area and Circumference of a Circle

Circle		$A = \pi * r^2$	$C = 2\pi * r$ or $C = \pi * d$
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Chapter -11

Perimeter and Area

- **Perimeter** is the distance around a closed figure whereas area is the part of plane occupied by the closed figure.
- **Area** is the measure of the part of plane or region enclosed by it.
- We have learnt how to find perimeter and area of a square and rectangle in the earlier class. They are:

(a) Perimeter of a square = $4 \times \text{side}$

(b) Perimeter of a rectangle = $2 \times (\text{length} + \text{breadth})$

(c) Area of a square = $\text{side} \times \text{side}$

(d) Area of a rectangle = $\text{length} \times \text{breadth}$

- Area of a parallelogram = $\text{base} \times \text{height}$

- Area of a triangle = $\frac{1}{2} (\text{area of the parallelogram generated from it}) = \frac{1}{2} \times \text{base} \times \text{height}$

- Area of equilateral triangle = $\frac{\sqrt{3}}{4} \times (\text{side})^2$

- The distance around a circular region is known as its circumference.

- The ratio of circumference and diameter of a circle is a constant is denoted by π (pi).

- Circumference of a circle = πd , where d is the diameter of a circle and $\pi = \frac{\pi}{7}$ or 3.14

(approximately).

- Area of a circle = πr^2 , where r is the radius of the circle.

- Based on the conversion of units for lengths, studied earlier, the units of areas can also be converted: $1 \text{ cm}^2 = 100 \text{ mm}^2$

$$1 \text{ m}^2 = 10000 \text{ cm}^2,$$

$$1 \text{ hectare} = 10000 \text{ m}^2$$
