Area

Understanding Finding Area

- Area is the space inside a shape, and it is measured in square units like cm^2, m^2, or mm^2.
- To find the area, we multiply the length and width for rectangular and square shapes.
- The area is always inside the boundary of the shape.
- Different shapes have different formulas to find their area.

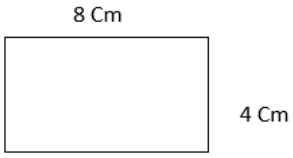
Key Points to Remember

- For rectangles: Area = length × width
- For squares: Area = side × side
- For triangles: Area = $\frac{1}{2}$ × base × height
- For circles: Area = π × radius² (π ≈ 3.14)
- Units are always in square units (cm^2, m^2)

Mixed Examples with Solutions

Example: Find the area of a rectangle with length 8 cm and width 4 cm

Solution: Area = length × width = 8 × 4 = 32 cm^2



Example: Find the area of a square with side 5 cm

Solution: Area = side × side = 5 × 5 = 25 cm^2

Example: Find the area of a triangle with base 6 cm and height 3 cm

Solution: Area = $\frac{1}{2}$ × base × height = $\frac{1}{2}$ × 6 × 3 = 9 cm^2

Example: Find the area of a circle with radius 3 cm (use π = 3.14)

Solution: Area = π × $radius^2$ = 3.14 × 3^2 = 3.14 × 9 = 28.26 cm^2

Example: Find the area of a rectangle with length 10 m and width 5 m

Solution: Area = length × width = 10 × 5 = 50 m^2

Summary Points

- Area is the space inside a shape, measured in square units.
- Different shapes use different formulas to find the area.
- The area of a rectangle is found by multiplying length and width.
- The area of a square is found by squaring the side.
- The area of a circle involves squaring the radius and multiplying by π.
- Practicing these formulas helps in understanding real-life measurements.