Finding the Length of a Circle

Understanding the Length of a Circle

- The length of a circle is called the circumference.
- The circumference is the total distance around the circle.
- We can find the circumference using the formula:

  Circumference = 2 × π × radius

  π (pi) is approximately **3.14**
- Alternatively, if we know the diameter of the circle, we can use the formula:

  Circumference = π × diameter

Key Points to Remember

- The radius is the distance from the center to any point on the circle
- The diameter is twice the radius
- The circumference is always greater than the diameter
- π (pi) is a special number used in circle-related calculations

Mixed Examples with Solutions

Example: Find the circumference of a circle with a radius of 5 cm

Solution: Circumference = 2 × 3.14 × 5 = 31.4 cm

Example: Find the circumference of a circle with a diameter of 8 cm

Solution: Circumference = 3.14 × 8 = 25.12 cm

Example: A circle has a radius of 7 cm. What is the circumference?

Solution: Circumference = 2 × 3.14 × 7 = 43.96 cm

Example: A circle has a diameter of 12 cm. What is its circumference?

Solution: Circumference = 3.14 × 12 = 37.68 cm

Example: If the radius of a circle is 3 cm, what is the circumference?

Solution: Circumference = 2 × 3.14 × 3 = 18.84 cm

Summary Points

- The length of a circle is called the circumference.
- Use the formula Circumference $= 2 \times \pi \times$ radius to find it.
- You can also use Circumference $= \pi \times$ diameter if you know the diameter.
- The circumference is always the perimeter of the circle.
- Practice helps in quickly calculating the circumference for different circles.