Conversion of Lengths

Understanding Conversion of Lengths

Conversion of lengths means changing one unit of length into another. For example, converting meters to centimeters or kilometers to meters. It helps us understand how different units relate to each other and makes solving length problems easier.

Why Learn Conversion of Lengths?

- It allows comparing lengths measured in different units.
- It simplifies calculations when units match.
- It is useful for real-life tasks, like building or traveling.

Common Conversions:

- 1 meter = 100 centimeters
- 1 kilometer = 1000 meters
- 1 meter = 10 decimeters

Examples with Solutions:

Example: Converting Meters to Centimeters

Convert 2 meters into centimeters.

- ✓ 1 meter = 100 centimeters.
- \checkmark 2 meters = 2 \times 100 = 200 centimeters.

Example: Converting Centimeters to Meters

- > Convert 250 centimeters into meters.
- ✓ o Solution: 1 meter = 100 centimeters.
- ✓ 250 ÷ 100 = 2.5 meters.

Example: Converting Kilometers to Meters

Convert 3 kilometers into meters.

- ✓ 1 kilometer = 1000 meters.
- ✓ 3 × 1000 = 3000 meters.

Example: Converting Meters to Kilometers

> Convert 4500 meters into kilometers.

- ✓ 1 kilometer = 1000 meters.
- ✓ 4500 ÷ 1000 = 4.5 kilometers.

Example: Adding Different Units

> Add 2 km 300 m and 1 km 700 m. Express the total in kilometers.

- ✓ Convert 2 km 300 m into meters:
- ✓ 2 km = 2000 m, so 2000 + 300 = 2300 m.
- ✓ Convert 1 km 700 m into meters:
- ✓ 1 km = 1000 m, so 1000 + 700 = 1700 m.

Add them together:

- ✓ 2300 m + 1700 m = 4000 m.
- ✓ Convert 4000 meters into kilometers:
- ✓ 4000 ÷ 1000 = 4 kilometers.

Key Points to Remember:

- Conversion factors:
 - 1 meter = 100 centimeters
 - 1 kilometer = 1000 meters

• Steps for conversion:

- $\,\circ\,$ To convert from larger units to smaller units, multiply.
- To convert from smaller units to larger units, divide.
- Understanding these conversions helps in solving real-world problems quickly and accurately.