Addition and subtraction in Measures of Length

Understanding Notes

- We measure length using units like meter (m) and centimeter (cm)
- 1 meter = 100 centimeters
- To add or subtract, both measurements must be in the same unit
- Convert cm to m when cm is 100 or more
- While subtracting, if cm is not enough, borrow 1 meter (equals 100 cm)
- Final answers should be shown clearly in m and cm

Example: (Easy - Addition within cm)

Ravi has a rope of 35 cm. His friend gave him another rope of 45 cm

- Length of first rope = 35 cm
- Length of second rope = 45 cm
- Total length = 35 + 45 = 80 cm

Example: (Easy - Subtraction within m)

A bamboo stick is 6 m tall. 2 m was cut from it

- Original length = 6 m
- Length cut = 2 m
- Remaining = 6 − 2 = 4 m

Example: (Moderate - Mixed units addition)

A rod is 2 m 75 cm long. Another rod is 1 m 45 cm long

- Add meters = 2 + 1 = 3 m
- Add centimeters = 75 + 45 = 120 cm
- 120 cm = 1 m 20 cm
- Total = 3 m + 1 m 20 cm = 4 m 20 cm

Example: (Moderate - Mixed units subtraction)

A cloth is 5 m 80 cm long. A piece of 2 m 95 cm is cut

- 80 − 95 not possible so borrow 1 m from 5 m

- Now 4 m and 180 cm
- 180 − 95 = 85 cm
- 4 − 2 = 2 m
- Remaining = 2 m 85 cm

Example: (Moderate - Conversion before addition)

One ribbon is 150 cm and another is 2 m 35 cm

- 150 cm = 1 m 50 cm
- Now add 1 m 50 cm + 2 m 35 cm
- Meters = 1 + 2 = 3 m
- Centimeters = 50 + 35 = 85 cm
- Answer = 3 m 85 cm

Summary Points

- Always make sure both units are the same before solving.
- Convert cm into m when cm is 100 or more.
- Use borrowing when subtracting if needed.
- Add meters and centimeters separately.
- Final answer can be written as m and cm together for clarity.