Comparing Line Segments

Understanding Comparing Line Segments

- Comparing line segments means checking which line segment is longer, shorter, or equal in length.

- We use a ruler or scale to measure the length of each line segment.

- After measuring, we compare the lengths in cm or mm.

- This helps in drawing shapes, planning measurements, and understanding distances.

Ways to Compare Line Segments

- Direct Measurement Method: Use a ruler to measure both segments and compare

- Using Tracing Paper: Trace one segment and place it on the other to check

- By Folding or Matching: Place segments on each other and check if they match

Mixed Examples with Solutions

Example: AB = 6 cm, CD = 4 cm. Which is longer?

Solution: AB is longer because 6 cm > 4 cm

Example: PQ = 5.5 cm, RS = 5.5 cm. Which is longer?

Solution: Both are equal

Example: Line segment XY = 7 cm and line segment MN = 6.8 cm. Which is shorter?

Solution: MN is shorter because 6.8 cm < 7 cm

Example: Compare a 3 cm segment and a 30 mm segment

Solution: 30 mm = 3 cm → Both are equal

Example: Measure and compare: one segment is from 0 to 8.5 cm, another is from 0 to 7 cm

Solution: 8.5 cm > 7 cm → First segment is longer

Summary Points

- To compare line segments, measure their lengths using a ruler.

- Write the lengths in the same unit (cm or mm) before comparing.

- Use > (greater), < (less), or = (equal) to show the result.

- Helps in choosing correct sizes and making accurate drawings.

- Practice improves accuracy in comparing and measuring line segments.