

Measuring Segments

Unit 1 Lesson 3

Measuring Segments

Students will be able to:

Measure and compare lengths of segments using ruler

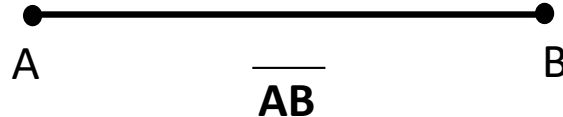
Key Vocabulary

- Line Segment
- Distance/length
- congruent segments
- Segment bisector
- Segment partition

Measuring Segments

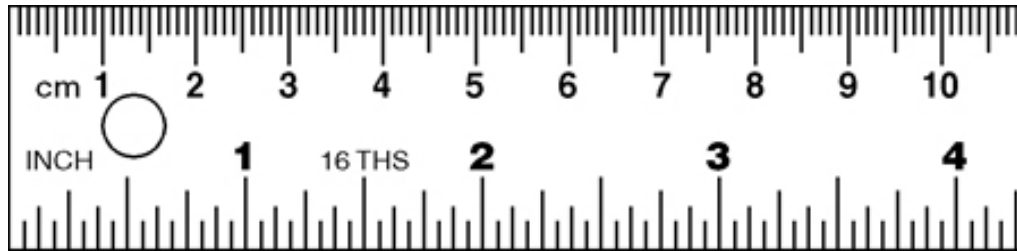
A **Line Segment** is a line that is bound by two unique end points and does not extend indefinitely without ending (like a line).

- The line segment always has a certain length that can be measured using a ruler.
- The line segment is represented by the bold letters representing the two end points and a straight dash to show it is a line segment.



Measuring Segments

The length of a line segment (line segment) is measured using a ruler. The standard ruler which is used to measure lengths (on a paper) in geometry is a centimetre ruler.



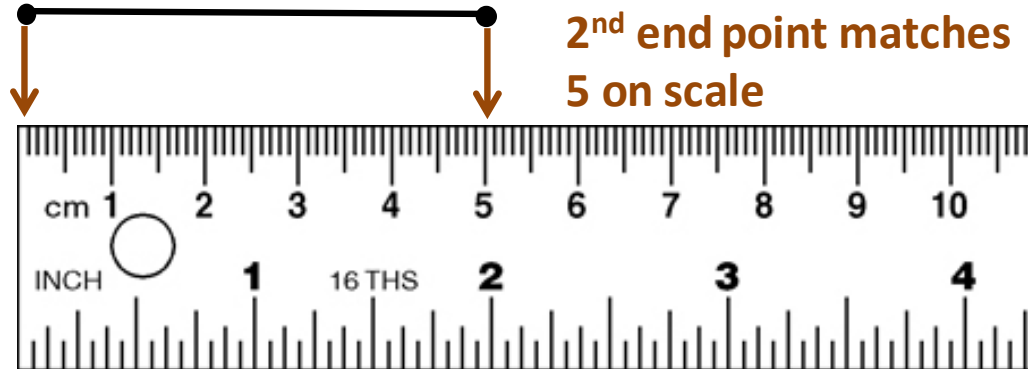
Measuring Segments

To measure the length of segment using the centimetre ruler, match one end point with 0 on the centimetre scale and then match the number on the scale with the other end point of line segment. That number is the length of the line segment

1st end point matches
0 on scale

2nd end point matches
5 on scale

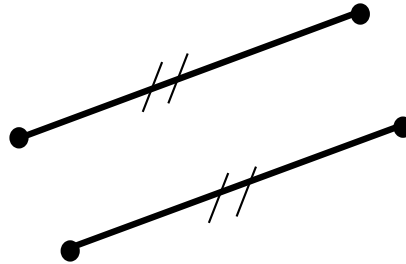
Length = 5 cm



Measuring Segments

Two line segments having same lengths are said to be **congruent line segments**.

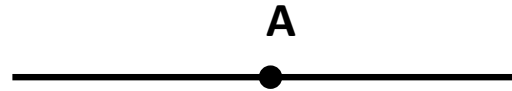
The symbol of congruency is two forward dashes on both lines as '/'.



The two lines are congruent

Measuring Segments

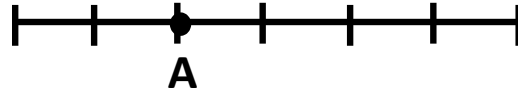
A **segment bisector** is a point, line or a line segment that divides the line segment into two equal parts. A segment bisector is usually at the centre of the line segment and always includes the midpoint of the line segment.



The point A is a segment bisector

Measuring Segments

A **segment partition** is a point, line or a line segment that partitions the line segment in a particular ratio. If the ratio is equal, the segment partition becomes a segment bisector.

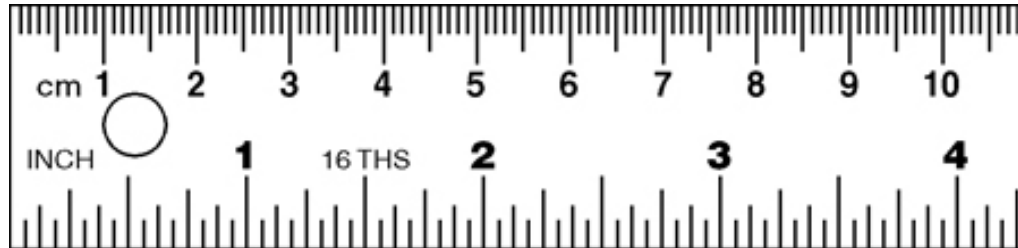


The point A divides the line segment in a **1 : 2** ratio

Measuring Segments

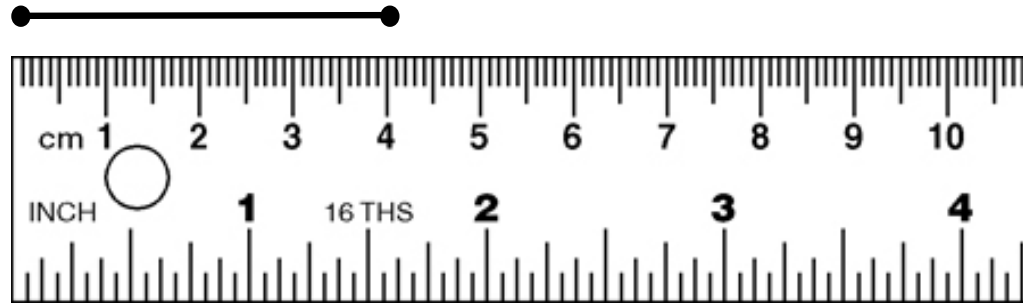
PROBLEM 1:

Measure the length of the line segment and draw a segment bisector on it. Use the scale given below.

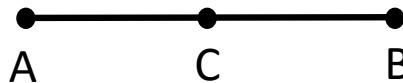


Measuring Segments

Match the end points with the scale to measure the length first.



The length of the line segment is **4cm**



The segment bisector comes at **2 cm** and is represented by point **C**.