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Linear Measure

Terminology

Line Segment

- A specific portion of a line.
- can be measured

Labeling

- Two upper case letters, with a segment above

Segment \overline{AB}

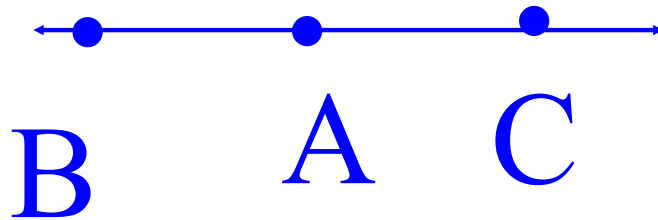


Betweenness of Points

- A point that is located between two other points.
- All points are collinear

Point A is located between B and C.

(this does not mean exactly between, it implies anywhere in between)



Terminology

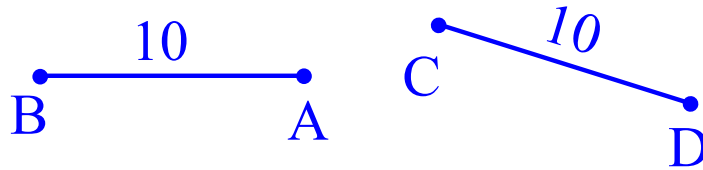
Congruent Segments

- Two segments that have the same measure (equal lengths).

* *"Congruent" references the actual segment*

* *"Equal" references the numeric value of its measure*

To show (or prove) that two segments are congruent, you must first show that they have equal measure.



Since $AB = 10$ and $CD = 10$, we can show why the two segments are congruent.

$$10 = 10 \quad \text{reflexive property}$$

$$AB = CD \quad \text{substitution property}$$

$$\overline{AB} \cong \overline{CD} \quad \text{definition of congruent segments}$$

Sample

Find the value of x if A is between BC and
 $AB = 6x - 5$, $AC = 2x + 3$ and $BC = 30$
(Hint: Draw the segment and label all parts)