1.5 Segments and Their Measures

Objective: Measure segments. Add segment lengths.
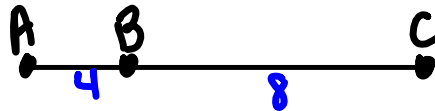
The number on a number line is called a <u>coordinate</u>.

The <u>distance</u> between points A and B is written AB. AB is also called the <u>length</u>.

Postulate 5: Segment Addition Postulate: If B is between A and C, then ~~Num~~ AB + BC. $= AC$

$$4 + 8 = 12$$

*part + part = whole *

A ———— B ———————————— C
  4   8

Example 1: Checkpoint on the top of pg. 30.

  A. Find the length of AC.

$$AB + BC = AC$$
$$14 + 6 = 20$$

  B. Find the length of ST.

$$ST + TR = SR$$
$$X + 15 = 23$$
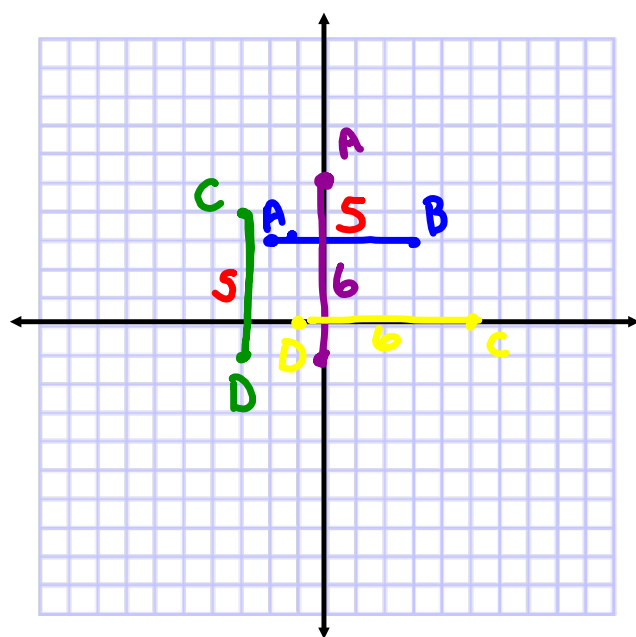$$ -15 \quad -15$$
$$X = 8 = ST$$

Segments that have the same length are called <u>congruent segments</u>.

Use short tick marks to indicate congruent segments.

The symbol for indicating congruence is ≅.

A ●————|————● B

C ●————|————● D
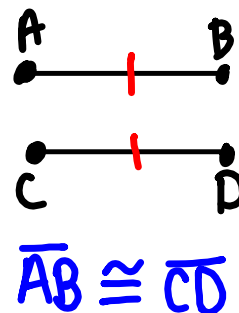
$\overline{AB} \cong \overline{CD}$

Example 2: Checkpoint on the bottom of pg. 30

A(-2,3)
B(3,3)

$\overline{AB} \cong \overline{CD}$

C(-3,4)
D(-3,-1)

A(0,5)   C(5,0)
B(0,-1)   D(-1,0)

$\overline{AB} \cong \overline{CD}$

= ≅
≠ ≇

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