

# 1-5 Segments and Their Measures

**Objective:** Add segment lengths

The distance between two points  $M$  and  $S$  is written as  $MS$  (also called the length of  $MS$ )



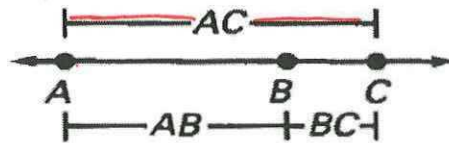
**Between:** a point that is in the interval of 2 points – 3 points must be collinear



**Segment Addition Postulate:** If  $B$  is between  $A$  and  $C$  then

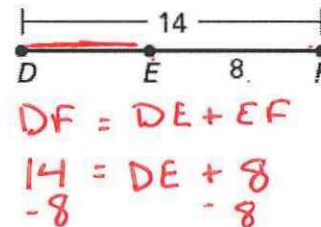
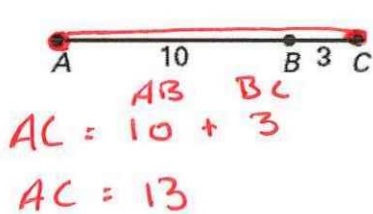
$$AC = AB + BC$$

↑ ↑ ↑  
 whole length    part 1    part 2



**Example:**

1. Use the diagrams to find  $AC$  and  $DE$



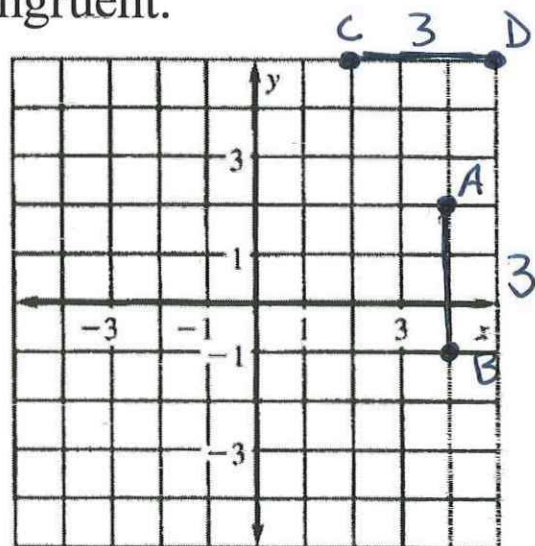
$DE = 6$

**Congruent** ( $\cong$ ): have the same length or measure

Plot the points in the coordinate plane. Then draw segments AB and CD. Decide if AB and CD are congruent.

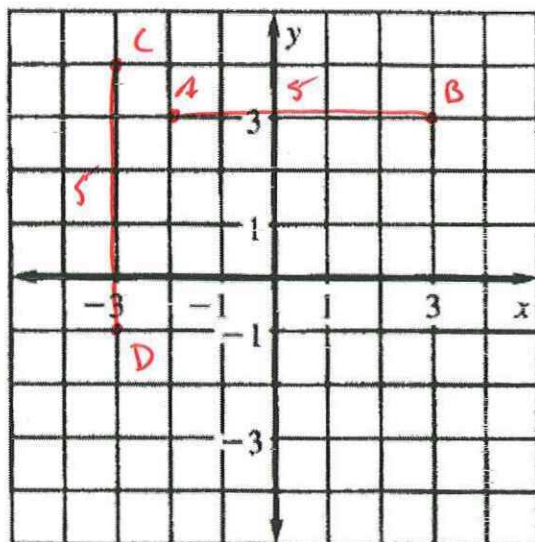
2. A(4,2) B(4, -1) C(2, 5) D(5, 5)

- ① start at (0,0)
- ② move left/right (4, 2)
- ③ up/down



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

3. A(-2, 3) B(3, 3) C(-3, 4) D(-3, -1)



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