

**GEOMETRY
HONORS
CLASS NOTES**

Name: _____

Section(s): 1.2 Period: _____ Date: _____

Key Question: _____

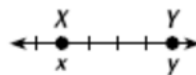
Questions/
Main Ideas:

Warm-up:

Two numbers have a sum of 35. The first number is 9 less than the second. What are the numbers?

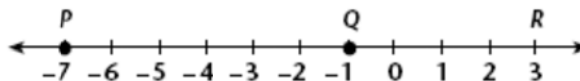
Notes:

- If x and y are the _____ of points X and Y on a number line, then XY , the length of \overline{XY} , is given by $|x - y|$ or $|y - x|$.
- Notice that the length of \overline{XY} is also the distance between X and Y .



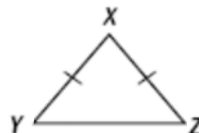
Example 1

Find the length of each segment on the number line.



- a. \overline{PQ} b. \overline{QR} c. \overline{PR}

- The _____ **Postulate** states that if two segments have the same length, they are congruent. If two segments are congruent, they have the same length.
- In illustrations, congruent segments are indicated by equal numbers of "tick marks." In the figure below, for example, \overline{XY} and \overline{XZ} are congruent. You write this as, $\overline{XY} \cong \overline{XZ}$



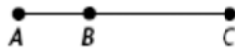
Example 2

Use the Segment Congruence Postulate to complete each sentence.

a. If $DE = MN$, then _____.

b. If $\overline{DE} \cong \overline{MN}$, then _____.

- The _____ Postulate states that if $A, B,$ and C are collinear with B between A and C , then $AB + BC = AC$.



Example 3

Acadia, Brentwood, and Cedarville lie along a straight stretch of interstate highway. Brentwood lies between Acadia and Cedarville. The distance from Acadia to Cedarville is 200 miles. If Cedarville is three times as far from Brentwood as Brentwood is from Acadia, find each distance.

Summary: _____
