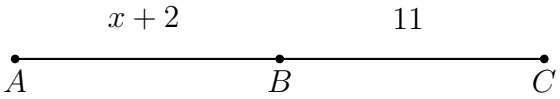
BECA / Dr. Huson / Geometry Name:
1-4 Number line, lengths

I can work with a number line

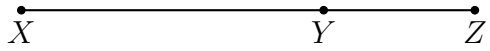
1. Do Now: Given point B is the midpoint of $\overline{AC}$, with $AB = x + 2$, $BC = 11$.

   First write and equation representing the situation, then find x.



2. Do Now: The points shown are in a straight line, $\overline{XYZ}$.

   (a) Measure and label the lengths XY and YZ to the nearest centimeter.

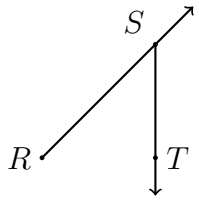


   (b) Write an equation employing the Segment Addition Postulate.
   (fill in the blanks with values in centimeters)

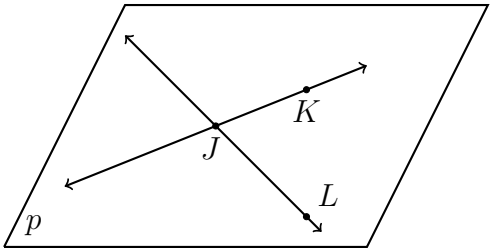
   $XZ =$ _____ + _____ = _____

3. Do Now: Points that are all located on the same plane are _____.

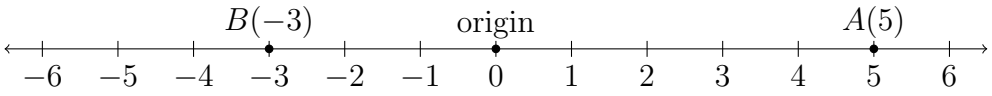
4. Do Now: Write down the name of two line segments shown in the diagram below using proper geometric notation.



5. Do Now: Identify two lines in the given plane.



Absolute value: the distance from a point to the origin (zero)



The absolute value of 5 is 5. $|5| = 5$

The absolute value of -3 is 3. $|-3| = 3$

6. Find the value of each expression.

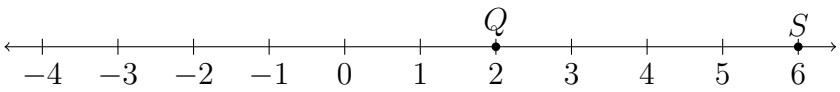
   (a) $|11| =$

   (b) $|-7| =$

   (c) $|-4.75| =$

   (d) $|10-7| =$

7. Given $\overleftrightarrow{QS}$ as shown on the number line.

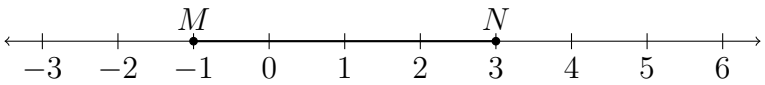


   (a) In the given number line units, what is the distance between Q and S?

   $QS =$

   (b) Mark the point R, the midpoint of $\overline{QS}$.

8. Given $\overline{MN}$ with $M(-1)$ and $N(3)$, as shown on the number line.



   What is the length of the segment $\overline{MN}$? Show your work as an equation.

   Can a length be a negative number?