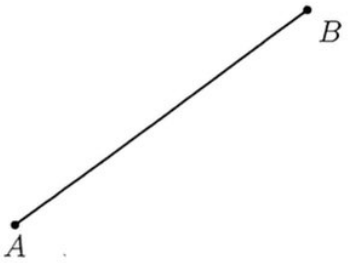
Name: Solutions

1.1 Classwork: Segment addition, vocabulary

1. Use symbols to write the names of objects in the given figure.



(a) The two endpoints

A, B

(b) The name of the line segment

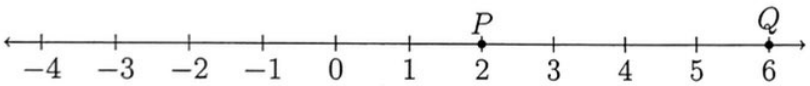
$\overline{AB}$

(c) Measure the segment. Write its length in centimeters (expressed as an equation).

$AB = 6$ cm

2. A(n) line segment is a portion of a straight line that includes two points and all of the points between the two points.

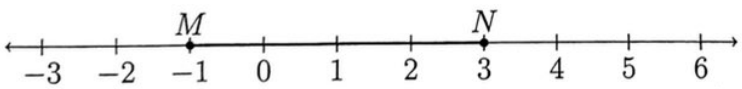
3. Given $\overline{PQ}$ as shown on the number line.



What is the distance between P and Q?

$PQ =$ $6 - 2 = 4$

4. Two points $M(-1)$, $N(3)$ and the segment $\overline{MN}$ are shown on the number line.



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

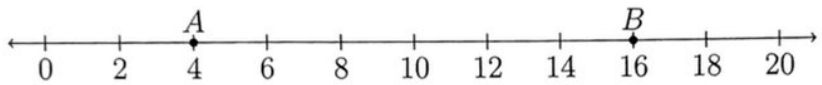
$MN = 3 - (-1) = 4$

5. Can a length be a negative number? Can it be zero?

No. Yes.

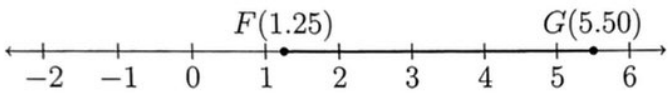
All lengths are non-negative

6. Points $A = 4$ and $B = 16$ are shown below. Find AB.



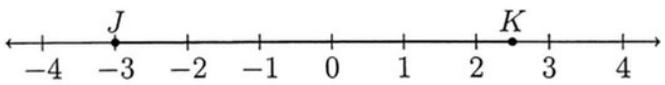
$AB = 16 - 4 = 12$

7. Given $\overline{FG}$ as shown. What is the distance on the number line between the points?



$FG = 5.50 - 1.25 = 4.25$

8. Given $J(-3.0)$ and $K(2.5)$, as shown on the number line. Find the length of the line segment $\overline{JK}$.



$JK = 2.5 - (-3.0) = 5.5$

9. Terry is 63 inches tall and Steven is 68 inches tall. State who is taller and by how much.

Steven ~~Terry~~ is taller.

$diff = 68 - 63 = 5$ inches

10. Dr. Huson bicycles from 80th Street to 164th Street (straight north). How many blocks is that?

$d = 164 - 80 = 84$ blocks