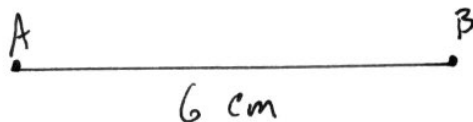
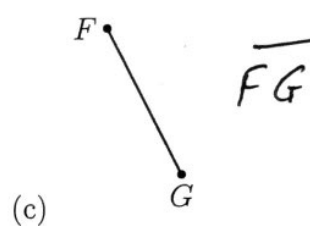
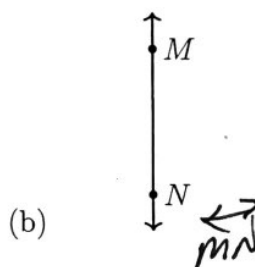
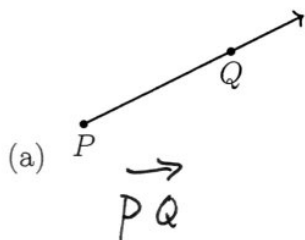


1.3 Homework: Vocabulary and segment addition

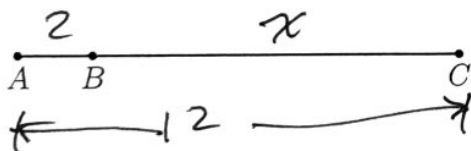
1. Draw and label a line segment \overline{AB} such that the distance between points A and B is 6 centimeters.



2. Points that fall on the same straight line are Collinear.
3. True or false: In mathematics we imagine that a straight line can go on forever in both directions.
True
4. Use symbols to write the name of each geometric figure.



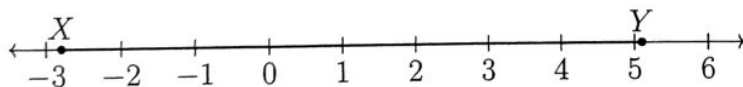
5. Given \overline{ABC} , $AB = 2$, and $AC = 12$. Mark the diagram, then find BC .



$$\begin{aligned} 2 + x &= 12 \\ x &= 10 \end{aligned}$$

$$2 + 10 = 12 \checkmark$$

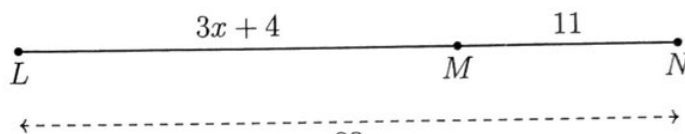
6. Two points $X(-2.8)$, $Y(5.1)$ are shown on the number line.



Find the length of \overline{XY} . Show your work as an equation.

$$\begin{aligned} XY &= 5.1 - (-2.8) \\ &= 7.9 \end{aligned}$$

7. As shown, three collinear points with $LM = 3x + 4$, $MN = 11$, $LN = 33$. Find x .



$$(3x + 4) + 11 = 33$$

$$3x + 15 = 33$$

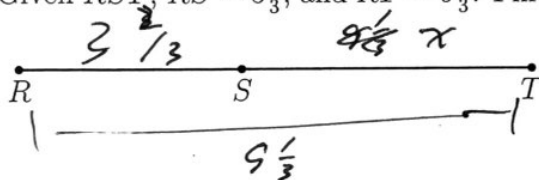
$$3x = 18$$

$$x = 6$$

$$LM = 3(6) + 4 = 22$$

$$22 + 11 = 33 \checkmark$$

8. Given \overline{RST} , $RS = 3\frac{2}{3}$, and $RT = 9\frac{1}{3}$. Find ST . (expressed as a fraction, not a decimal).

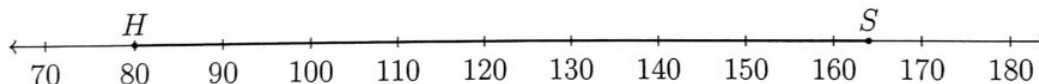


$$3\frac{2}{3} + x = 9\frac{1}{3}$$

$$x = 9\frac{1}{3} - 3\frac{2}{3} = 5\frac{2}{3}$$

$$3\frac{2}{3} + 5\frac{2}{3} = 9\frac{1}{3} \checkmark$$

9. The diagram depicts a morning bicycle ride from home at 80th Street (H) to school at 164th Street (S) and an afternoon return from S to H .



- (a) Which ride is longer, the morning or afternoon? Or are they the same?

Same

- (b) In geometric notation, is there a difference between the segments \overline{HS} and \overline{SH} ?

No difference.

10. One day on Dr. Huson's commute straight north from 80th Street to 164th Street he realized he forgot something after riding ten blocks. So he had to ride back to his apartment before turning back around to ride to school as usual. How many total blocks did he ride that morning?

$$d = 164 - 80 = 84$$

$$\text{total } d = 10 + 10 + 84 = 104 \text{ blocks}$$