



If two line segments have equal measure, then the line segments have the same length.

Congruent line segments are two or more line segments of equal measure.

If $m\overline{AB} = m\overline{CD}$, then line segment AB is congruent to line segment CD by the definition of congruent line segments. This statement can be written using symbols as $\overline{AB} \cong \overline{CD}$ and is read as "line segment AB is congruent to line segment CD ."

Use the congruence symbol, \cong , between references to congruent geometric figures; and the equal symbol, $=$, between references to equal lengths or distances.



Markers are used to indicate congruent segments in geometric figures. If a diagram has more than one set of congruent segments then sets of markers can be used.

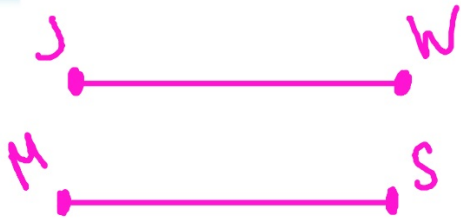
The figure shows $\overline{AB} \cong \overline{CD}$ and $\overline{AD} \cong \overline{BC}$.





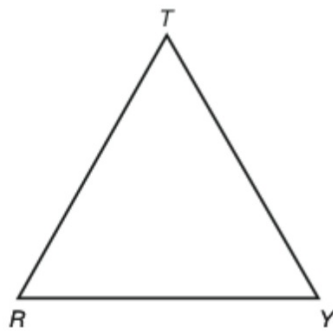
11. Draw and label two congruent line segments. Then, use symbols to write a statement that describes their relationship.

→ ruler
→ letters



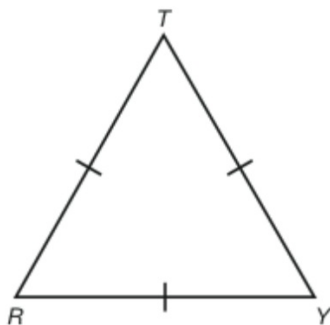
$$\overline{JW} \cong \overline{MS}$$

12. Ms. Snyder drew the triangle shown and asked her students to classify it.



- a. Mariah says the triangle is an equilateral triangle.
Is she correct?

b. Ms. Snyder then drew markers and asked her students to classify the triangle.



Mariah says the triangle is an isosceles triangle. Justin says the triangle is an equilateral triangle.

Who is correct?

- c. Ms. Snyder also asked her students to write a statement that best describes the congruency of the line segments forming the triangle.

Mariah

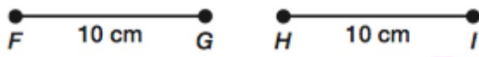
$$\overline{TR} = \overline{RY} = \overline{YR}$$

Justin

$$\overline{TR} \cong \overline{RY} \cong \overline{YR}$$

Who is correct?

13. Use symbols to write three valid conclusions based on the figure shown. How do you read each conclusion?



- ① $\overline{FG} \cong \overline{HI}$
- ② $FG = HI$
- ③ $m\overline{FG} = m\overline{HI}$

14. Use symbols to name all lines, rays, or segments shown.



- lines: $\overleftrightarrow{HG}, \overleftrightarrow{GH}$
rays: $\overrightarrow{HG}, \overrightarrow{GH}$
segments: $\overline{HG}, \overline{GH}$