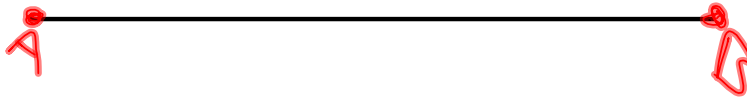


**Line Segment:**

- \* A portion of a line that can be measured.
- \* Has 2 endpoints.
- \* Labeled using the endpoints.

$\overline{AB}$  or  $\overline{BA}$

**Precision:**

- \* Use the \_\_\_\_\_ unit available on the measuring device.
- \* Precision should be within \_\_\_\_\_.
- \* 23 cm and 23.0 cm are two different measurements.
- \* 23 cm means that the ruler is \_\_\_\_\_  
\_\_\_\_\_.
- \* 23.0 cm means that the ruler is \_\_\_\_\_  
\_\_\_\_\_.

**Between:**

- \* When a point is collinear with two other points on a line.
- \* The other two points would be endpoints.

$$* \underset{\text{Part}}{AB} + \underset{\text{Part}}{BC} = \underset{\text{Whole}}{AC}$$

**Betweenness of Points:**

- \* When  $AB < AC$  and  $BC < AC$ .

**Congruent:**

- \* Symbol:  $\cong$
- \* When two segments have the same length.
- \* When two objects look the same. (size & shape)
- \* An object (segment) can be congruent to itself.

$$\overline{AB} \cong \overline{CD}$$

**Constructions:**

- \* When you can create a diagram without having to measure.
- \* A compass and straightedge are used.

**EXAMPLES:**

1. Find the precision for each measurement explain its meaning.

a.  $32\frac{3}{4}$  inches

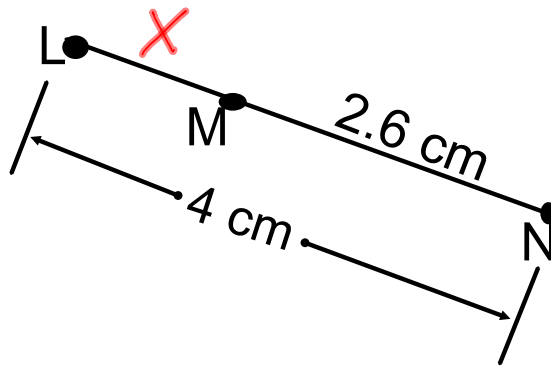
b. 15 millimeters

2. a. Find LM.

$$4 - 2.6 = 1.4 \text{ cm}$$

$$\text{LM} = 1.4 \text{ cm}$$

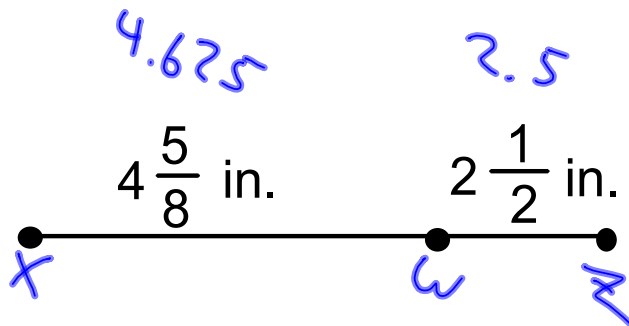
$$\begin{array}{r} x + 2.6 = 4 \\ -2.6 \quad -2.6 \\ \hline x = 1.4 \end{array}$$



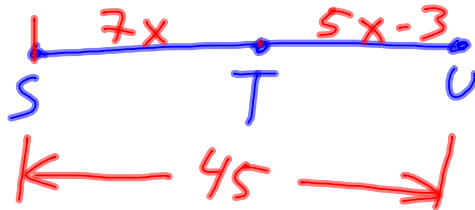
b. Find XZ.

$$XZ = 4.625 + 2.5$$

$$\text{XZ} = 7.125 \text{ in}$$



c. Find  $x$  and  $\overline{ST}$  if  $T$  is between  $S$  and  $U$ ,  $ST = 7x$ ,  $SU = 45$ , and  $TU = 5x - 3$ .



$$7x + 5x - 3 = 45$$

$$\begin{array}{r} 12x - 3 = 45 \\ +3 \quad +3 \\ \hline 12x = 48 \end{array}$$

$$\begin{array}{r} 12x = 48 \\ \hline 12 \quad 12 \\ \hline x = 4 \end{array}$$

$$\boxed{x = 4}$$

$$\begin{array}{l} ST = 7x \\ ST = 7(4) \\ \boxed{ST = 28} \end{array}$$

*Lesson 1-2*

Homework: skip #5, 6, 16-18, 42