# Lesson 1-2 Linear Measure and Precision

*Line Segment - line with 2 endpoints*


*Label: $\overline{AB}$ or $\overline{BA}$*

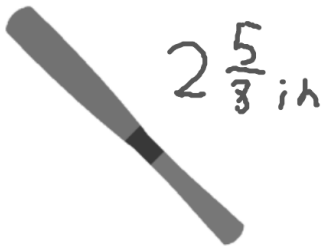
**Named by endpoints*

*Ex A. Find the length of each.*

53 mm

*a. (metric units)* 93mm *b.*

*c. (custumary units)* $4\frac{9}{16}$in *d.*

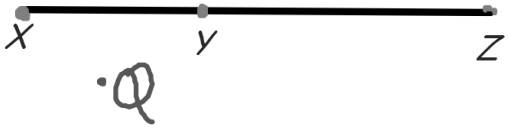



**Precision* - **depends on the smallest unit available on the measuring tool*
* the measurement should be precise w/i half unit of measure

**For example if a rulers smallest unit of measure is a 1/16th of an inch, then the precision is 1/32, which means the measurement is within 1/32 either way.*

*Betweenness of Points - a point is between two other points if and only if the three points are collinear.*

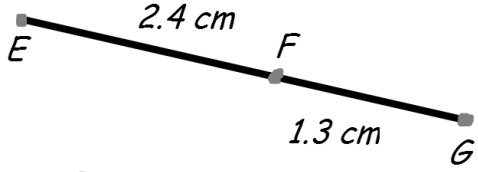
***Segment addition postulate*




* $XY + YZ = XZ$

*Ex. B Find the measure of each segment.*

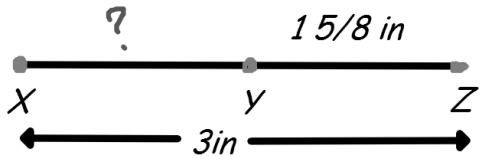
*a. EG*




$EG = 2.4 + 1.3$

$EG = 3.7$

*b. XY*



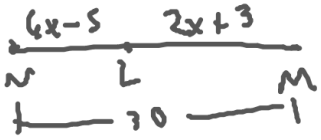

$XY + 1\frac{5}{8} = 3$

$-1\frac{5}{8} \quad -\frac{15}{8}$

$XY = 1\frac{3}{8}$ in

*Ex C. Find the value of the variable and LM if L is between N and M.*

*a. NL = 6x - 5, LM = 2x + 3, and NM = 30. (Hint: draw a picture)*




$6x - 5 + 2x + 3 = 30$

$8x - 2 = 30$

$8x = 32$ $\quad x = 4$

$LM = 2x + 3$

$2(4) + 3$

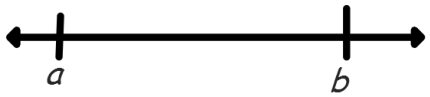
$LM = 11$

## ***Lesson 1-3 Distance and Midpoint***

*Distance - how far it is from one point to another*

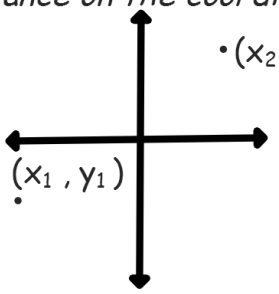
** same as finding LENGTH*

- *Distance on a number line*



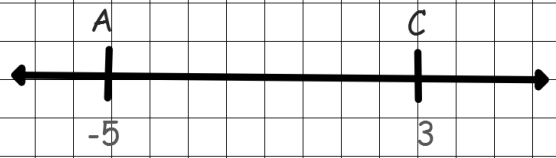

*b - a = distance*

- *Distance on the coordinate plane*



Example: Find $AC$ in each problem.

a.




$3-(-5)=8$

b.