Do Now:

Simplify each absolute value expression.

1. $|-6|$ 2. $|3.5|$ 3. $-|7-10|$

4. $|-4-2|$ 5. $|-2-(-4)|$ 6. $|-3+12|$

Aug 12-1:10 PM

Do Now (day 2):

Solve each equation.

7. $x+2x-6=6$ 8. $3x+9+5x=81$ 9. $w-2=-4+7w$

Aug 12-1:10 PM

Geometry

Ch. 1 Handout 1.5

Measuring Segments

Jun 3-1:35 PM

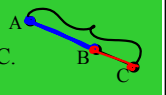
Postulate 1.5 Ruler Postulate

The points of a line can be put into one-to-one correspondence with the real numbers so that the distance between any two points is the absolute value of the difference of the corresponding numbers.

Sum of the parts = whole

Postulate 1.6 Segment Addition Postulate

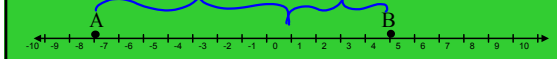
If three points A, B, and C are collinear and B is between A and C, then AB + BC = AC.



Jun 3-1:36 PM

A **coordinate** is a point's distance and direction from zero on a number line.

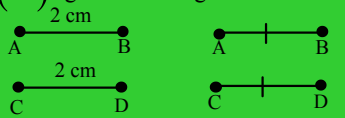
the length of AB = $|a-b|$



AB = 12 AB = $|-8-4|=|-12|$

Aug 27-4:03 PM

Congruent ($\cong$) segments are segments with the same length.



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

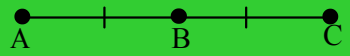
Are $\overline{MN}$ and $\overline{PQ} \cong$?

MN = 4 PQ = 4

MN = PQ $\overline{MN} \cong \overline{PQ}$

Aug 9-7:23 AM

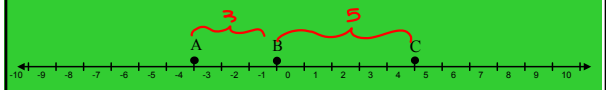
A midpoint is a point that divides the segment into two congruent segments.



$\overline{AB} \cong \overline{BC}$

Aug 31-3:16 PM

1. Find AB and BC. Are $\overline{AB}$ and $\overline{BC}$ congruent?



AB = 3 BC = 5

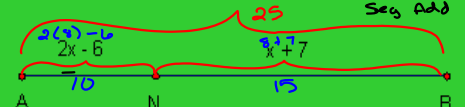
$3 \neq 5$

$AB \neq BC$

No, segs not $\cong$.

Aug 9-7:25 AM

If AB = 25, find the value of x. Then find AN and NB.



AN + NB = AB

$2x - 6 + x + 7 = 25$

$3x + 1 = 25$

$-1 \quad -1$

$3x = 24$ $x = 8$

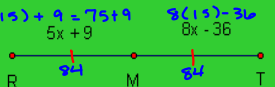
$x = 8$

AN = 10

NB = 15

Aug 27-4:09 PM

3. M is the midpoint of $\overline{RT}$. Find RM. MT, and RT.



RM = MT

$5x + 9 = 8x - 36$

$-5x \quad -5x$

$9 = 3x - 36$

$+36 \quad +36$

$45 = 3x$

$x = 15$

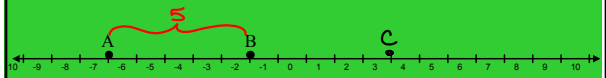
RM = 84

MT = 84

RT = 168

Aug 4-2:56 PM

4. Find AB. Find C, different from A, such that $\overline{AB}$ and $\overline{BC}$ are congruent.

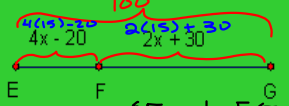


AB = 5

$\overline{AB} \cong \overline{BC}$

Aug 27-4:10 PM

5. EG = 100. Find the value of x. Then find EF and FG.



EF + FG = EG

$4x - 20 + 2x + 30 = 100$

$6x + 10 = 100$

$-10 \quad -10$

$6x = 90$

$x = 15$

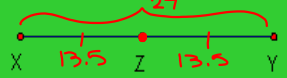
x = 15

EF = 40

FG = 60

Aug 4-3:04 PM

6. Z is the midpoint of XY, and XY = 27. Find XZ.



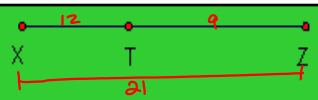
divides segs in to 2 ≅ parts

$\frac{27}{2} = 13.5$

$XZ = 13.5$

Aug 27-4:12 PM

7. Use the diagram at the right.

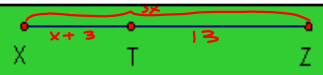


a) If XT = 12 and XZ = 21, then TZ = 9

$21 - 12 = 9$

Aug 4-3:11 PM

7. Use the diagram at the right.



b) If XZ = 3x, XT = x + 3, and TZ = 13, find XZ.

$XT + TZ = XZ$ ← Seg. Add post.

$x + 3 + 13 = 3x$

$x + 16 = 3x$

$-x \quad -x$

$16 = 2x$

$x = 8$

$XZ = 3x$

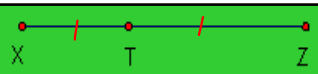
$XZ = 3(8)$

$XZ = 24$

Aug 4-3:11 PM

Sep 2-9:42 AM

7. Use the diagram at the right.



c) Suppose that T is the midpoint of $\overline{XZ}$
If XT = 2x + 11 and XZ = 5x + 8, find the value of x.

$XT + TZ = XZ$

$2x + 11 + 2x + 11 = 5x + 8$

$4x + 22 = 5x + 8$

$14 = x$

$x = 14$

Aug 4-3:11 PM

Assignment

Day 1: 1.5 Pgs 33-35 1,2,6,8,9
11-13,15,16-19,20,34,37

Day 2: 1.5 Pgs 33-35 10,14,22,
29-32, 35

Aug 4-3:11 PM