Geometry

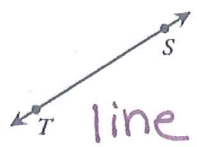
Segment Relationships: Basics

Segment Review Day 1 HW

Name Key

Date: _____ HR: _____

1. Describe the figure as a point, line, segment, or ray.

a. 

line

b. 

line

c. 

ray

d.

Point

e. 

Segment

f. 

Line

g. 

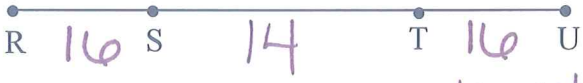
Segment

h. 

ray

2. RS ≅ TU, ST = 14, RU = 46

the figure is not drawn to scale

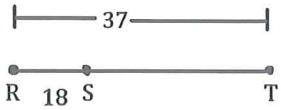


46 − 14 = 32 ÷ 2

a) Find RS = RS

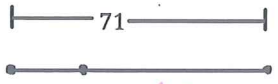
b) Find SU. = 30

3. Find ST



ST = 19

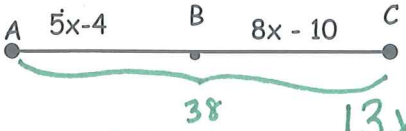
4. Find ZY.



YZ = 42

Refer to the figure and the given information to find each measure.

5. Given : AC = 38 m



AB + BC = AC

5x − 4 + 8x − 10 = 38

13x − 14 = 38

13x = 52

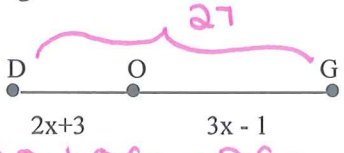
x = 4

x = 4 AB = 16m BC = 22m

AB = 5(4) − 4 = 16

BC = 8(4) − 10 = 22

6. Given the figure and DG = 27 ft



DO + OG = DG

2x + 3 + 3x − 1 = 27

5x + 2 = 27

5x = 25

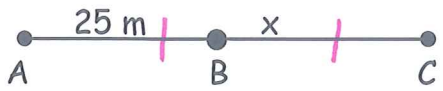
x = 5

x = 5 DO = 13ft OG = 14ft

DO = 2(5) + 3 = 13

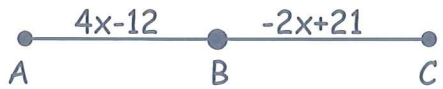
OG = 3(5) − 1 = 14

7. B is the midpoint of AC.



x = 25 AB = 25 BC = 25 AC = 50

8. B is the midpoint of AC.



AB ≅ BC def. of midpoint

$4x-12=-2x+21$

$+2x \quad +2x$

$6x-12=21$

$+12 \quad +12$

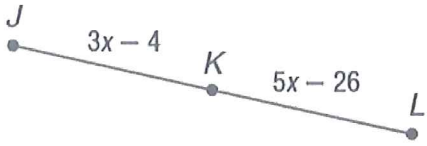
$\frac{6x}{6}=\frac{33}{6}$

$x=5.5$

$4(5.5)-12$

x = 5.5 AB = 10 BC = 10 AC = 20

9. Find x and the measure of $\overline{JK}$ if K is the midpoint of $\overline{JL}$. Show work.



JK ≅ KL def. of midpoint

$3x-4=5x-26$

$-3x \quad -3x$

$-4=2x-26$

$+26 \quad +26$

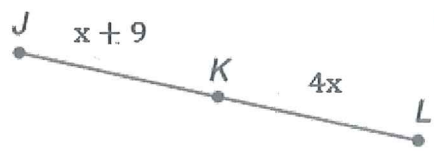
$\frac{22}{2}=\frac{2x}{2}$

x = 11

JL = 58

$JL=3(11)-4+5(11)-26$

10. Find x and the measure of $\overline{JK}$ if K is the midpoint of $\overline{JL}$. Show work.



JK ≅ KL def of midpt

$x+9=4x$

$-x \quad -x$

$\frac{9}{3}=\frac{3x}{3}$

x = 3

JL = 24

$JL=3+9+4(3)$