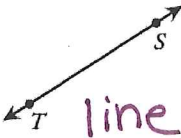




Geometry
Segment Relationships: Basics


Name Key
Date: _____ HR: _____


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


a.  line


b.  line


c.  ray

d.  Point

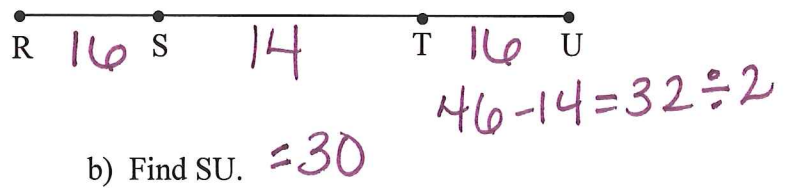
e.  Segment

f.  Line

g.  Segment

h.  ray

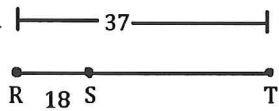
2. $RS \cong TU$, $ST = 14$, $RU = 46$
the figure is not drawn to scale



a) Find $RS = RS$

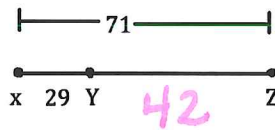
b) Find $SU = 30$

3. Find ST



$ST = 19$

4. Find ZY .

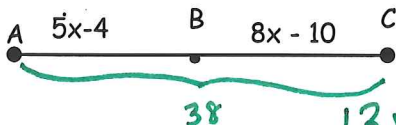


$ZY = 42$

$YZ = 42$

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

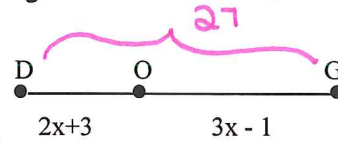
5. Given: $AC = 38$ m



$AB + BC = AC$
 $5x - 4 + 8x - 10 = 38$
 $13x - 14 = 38$
 $13x = 52$
 $x = 4$

$x = 4$ AB = 16m BC = 22m
 $AB = 5(4) - 4 = 16$
 $BC = 8(4) - 10 = 22$

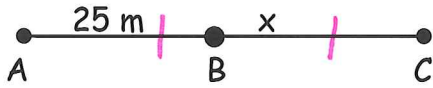
6. Given the figure and $DG = 27$ ft



$DO + OG = DG$
 $2x + 3 + 3x - 1 = 27$
 $5x + 2 = 27$
 $5x = 25$
 $x = 5$

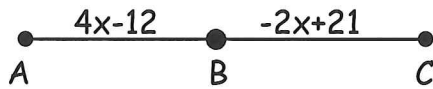
$x = 5$ DO = 13ft OG = 14ft
 $DO = 2(5) + 3 = 13$
 $OG = 3(5) - 1 = 14$

7. B is the midpoint of AC.



$x = \underline{25}$ $AB = \underline{25}$ $BC = \underline{25}$ $AC = \underline{50}$

8. B is the midpoint of AC.

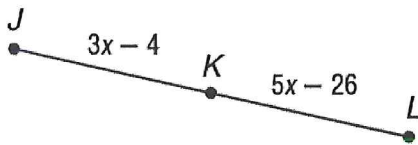


$AB \cong BC$ def. of midpoint
 $4x-12 = -2x+21$
 $\quad +2x \quad \quad +2x$
 $6x-12 = 21$
 $\quad \quad +12 \quad \quad +12$
 $6x = 33$
 $\frac{6x}{6} = \frac{33}{6}$
 $x = 5.5$

$4(5.5) - 12$

$x = \underline{5.5}$ $AB = \underline{10}$ $BC = \underline{10}$ $AC = \underline{20}$

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



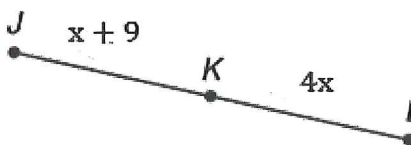
$JK \cong KL$ def. of midpoint
 $3x-4 = 5x-26$
 $\quad -3x \quad \quad -3x$
 $-4 = 2x-26$
 $\quad +26 \quad \quad +26$
 $22 = 2x$
 $\frac{22}{2} = \frac{2x}{2}$

$x = \underline{11}$

$JL = \underline{58}$

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

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



$JK \cong KL$ def of midpt
 $x+9 = 4x$
 $\quad -x \quad \quad -x$
 $9 = 3x$
 $\frac{9}{3} = \frac{3x}{3}$

$x = \underline{3}$

$JL = \underline{24}$

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