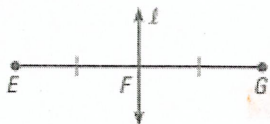


1. Explain what it means to bisect a line segment. Why is it impossible to bisect a line?

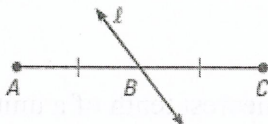
Line l bisects the segment. Find the indicated measure. Show your work!

2. Find EG if $EF = 13\text{ cm}$



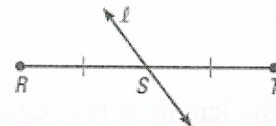
$EG = 26\text{ cm}$

3. Find BC if $AC = 19\text{ cm}$



$BC = 9.5\text{ cm}$

4. Find RT if $RS = 5\text{ cm}$



$RT = 10\text{ cm}$

5. Line RS bisects \overline{PQ} a point R .
Find RQ if $PQ = 14\text{ cm}$

$RQ = 7\text{ cm}$

6. Line JK bisects \overline{MN} a point J .
Find MN if $JM = 6.75\text{ ft}$

$MN = 13.5\text{ ft}$

7. Point C bisects \overline{AB} . Find CB if $AB = 14.8\text{ meters}$

$CB = 7.4\text{ m}$

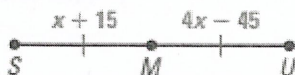
In the diagram, M is the midpoint of the segment. Find the indicated length. Show your work!

8. Find AM



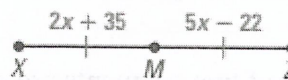
$AM = 10\text{ units}$

9. Find SU



$SU = 7\text{ units}$

10. Find XZ



$XZ = 146\text{ units}$

Find the coordinates of the midpoint of the segment with the given endpoints. Show your work!

11. $C(3, 5)$ and $D(7, 5)$

$M(5, 5)$

12. $G(-4, 4)$ and $H(6, 4)$

$M(1, 4)$

13. $P(-8, -7)$ and $Q(11, 5)$

$M(3/2, -1)$

Use the given endpoint R and midpoint M of \overline{RS} to find the coordinates of the other endpoint S. Show your work!

14. R(3, 0) and M(0, 5)

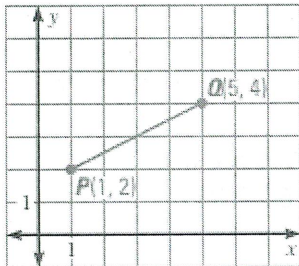
S(-3, 10)

15. R(4, -6), M(-7, 8)

S(-18, 22)

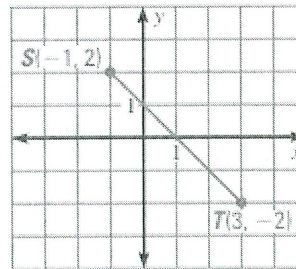
Find the length of the segment. Round to the nearest tenth of a unit. Show your work!

16.



D = 4.5 units

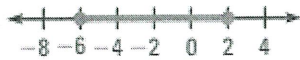
17.



D = 5.7 units

Find the length of the segment. Then find the coordinate of the midpoint of the segment. Show your work!

18.



D = 8

Midpoint @ -2

19.



D = 9

Midpoint @ -3.5

The endpoints of two segments are given. Find each segment length- round to the nearest tenth. Tell whether the segments are congruent. Show your work!

20. \overline{AB} : A(0, 2), B(-3, 8)

\overline{CD} : C(-2, 2), D(0, -4)

$\overline{AB} \neq \overline{CD}$

21. \overline{JK} : J(-4, 0), K(4, 8)

\overline{LM} : L(-4, 2), M(3, -7)

$\overline{JK} \neq \overline{LM}$