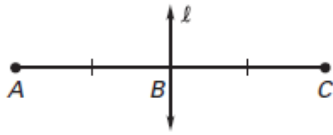
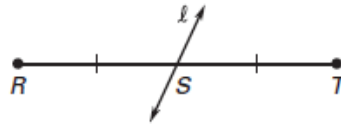


Line l bisects the segment. Find the indicated length.

1. Find AC if $AB = 6$ cm



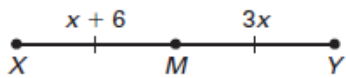
2. Find ST if $RT = 109$ in.



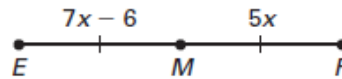
3. Line CD bisects \overline{AB} at point C . Find AC if $AB = 56$ ft. (HINT : draw a picture)

In each diagram, M is the midpoint of the segment. Find the indicated length.

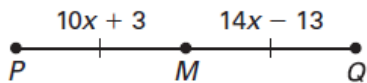
4. Find XM



5. Find MF



6. Find PQ



Find the coordinates of the midpoint of the segment with the given endpoints.

7. $R(3, 1)$ and $S(3, 7)$

8. $V(2, 4)$ and $W(6, 6)$

Use the given endpoint Y and midpoint M of \overline{YZ} to find the coordinates of the other endpoint Z.

9. $Y(0, 5)$, $M(3, 3)$

10. $Y(-1, -3)$, $M(5, 9)$

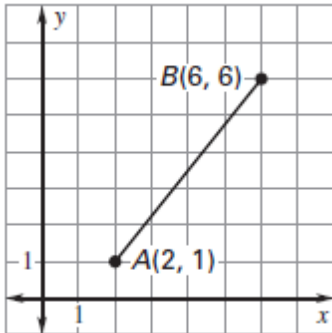
Answers :

1) 12 cm 2) 54.5 in 3) 28 ft 4) 9 5) 15 6) 86 7) (3, 4) 8) (4, 5)

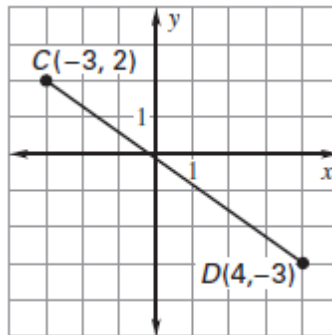
9) (6, 1) 10) (11, 21)

Find the length of the segment. Round to the nearest tenth of a unit.

1.



2.

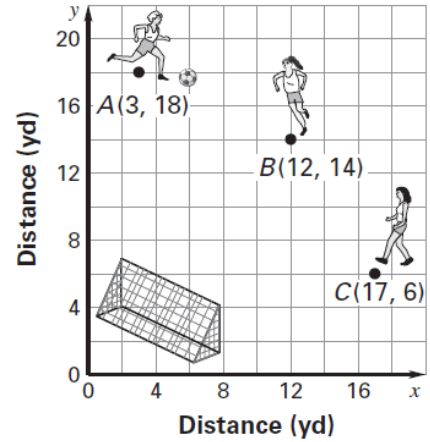


The endpoints of two segments are given. Find each segment length, and then tell whether the segments are congruent.

3. $\overline{JK} : J(1,1), K(0,5)$
 $\overline{LM} : L(1,1), M(-3,2)$

4. $\overline{PQ} : P(4,3), Q(-1,6)$
 $\overline{RS} : R(2,-3), S(-2,0)$

5. **Soccer** The diagram shows the position of three soccer players. Player A kicks the ball to Player B, who then kicks it to Player C. How far did Player A kick the ball? How far did Player B kick the ball? How far would player A have kicked the ball if she had kicked it directly to player C? Round all answers to the nearest tenth of a yard.



Answers :

1) 6.4

2) 8.6

3) $JK \approx 4.1$, $LM \approx 4.1$; congruent

4) $PQ \approx 5.8$, $RS = 5$; not congruent

5) about 9.8 yd; about 9.4 yd; about 18.4 yd