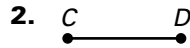
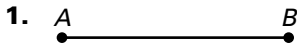


**LESSON**  
**1.2**

**Practice A**

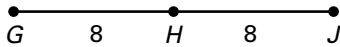
For use with pages 9–14

Use a ruler to measure the length of the segment to the nearest tenth of a centimeter. Then draw a segment with the same length.

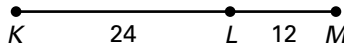


Find the indicated length.

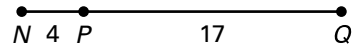
4. Find  $GJ$ .



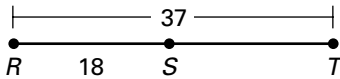
5. Find  $KM$ .



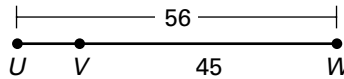
6. Find  $NQ$ .



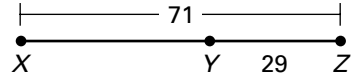
7. Find  $ST$ .



8. Find  $UV$ .

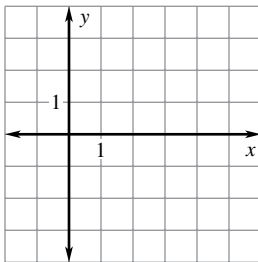


9. Find  $XY$ .

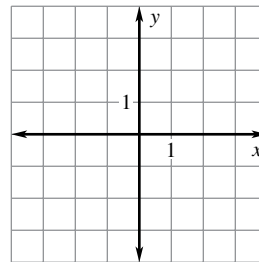


Plot the given points in a coordinate plane. Then determine whether the line segments named are congruent.

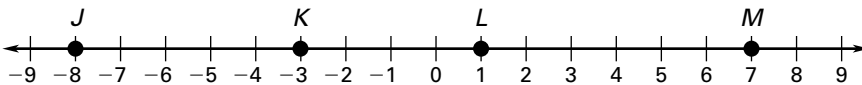
10.  $A(2, 2), B(2, -1), C(0, -2), D(3, -2)$ ;  
 $\overline{AB}$  and  $\overline{CD}$



11.  $E(-3, 2), F(1, 2), G(2, 3), H(2, -2)$ ;  
 $\overline{EF}$  and  $\overline{GH}$



Use the number line to find the indicated distance.



12.  $JK$

13.  $KL$

14.  $LM$

15.  $JL$

16.  $JM$

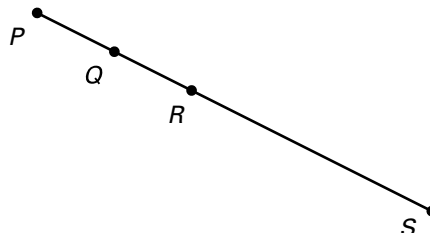
17.  $KM$

**LESSON**  
**1.2**

**Practice A** *continued*  
*For use with pages 9–14*

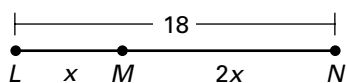
In the diagram, points  $P$ ,  $Q$ ,  $R$ , and  $S$  are collinear,  $PS = 46$ ,  $PR = 18$ , and  $PQ = QR$ . Find the indicated length.

- 18.  $PQ$
- 19.  $QR$
- 20.  $QS$
- 21.  $RS$

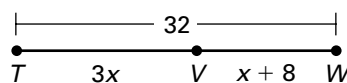


Find the indicated length.

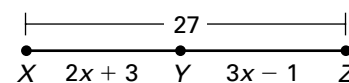
22. Find  $LM$ .



23. Find  $VW$ .



24. Find  $YZ$ .



Point  $B$  is between  $A$  and  $C$  on  $\overline{AC}$ . Use the given information to write an equation in terms of  $x$ . Solve the equation. Then find  $AB$  and  $BC$ .

25.  $AB = 3x$   
 $BC = x$   
 $AC = 20$

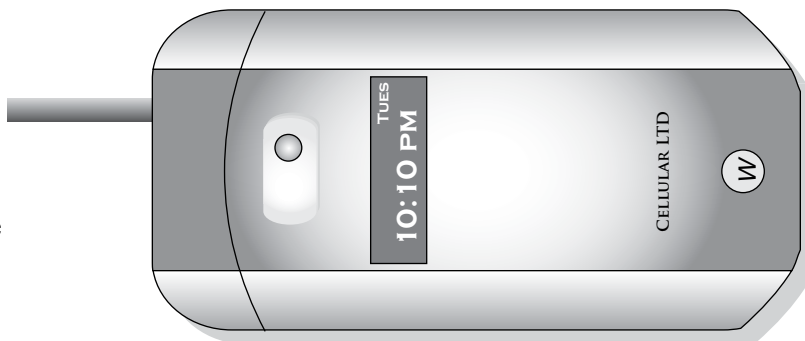
26.  $AB = 2x - 5$   
 $BC = 6x$   
 $AC = 27$

27.  $AB = 4x + 7$   
 $BC = 5x - 8$   
 $AC = 53$

28. **Cellular Phone**

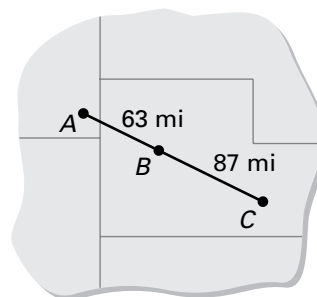
Measure the length of the cellular phone (without the antenna) to the nearest  $\frac{1}{8}$  inch.

Then measure the length of the antenna to the nearest  $\frac{1}{8}$  inch.



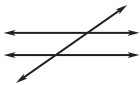
29. **Highway** You are traveling on a highway starting at point  $A$ . After you have traveled 63 miles (point  $B$ ), you see a sign that says it is 87 miles to your destination (point  $C$ ).

- a. Find the total distance you will travel to get to your destination.
- b. You are traveling at a constant speed of 60 miles per hour. How many hours will the entire trip take?

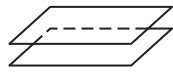


### Lesson 1.1, continued

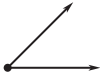
17. Sample answer:



18. Sample answer:



19. Sample answer:



20. Sample answer:

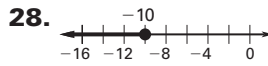


21. yes 22. yes 23. yes 24. no

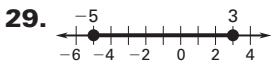
25. no 26. yes



ray



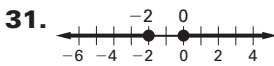
ray



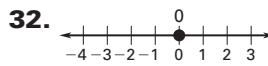
segment



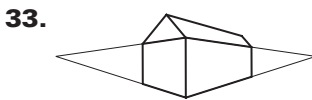
segment



rays



point

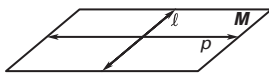


#### Review for Mastery

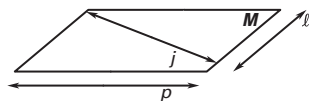
1. Sample answer:  $\overleftrightarrow{DC}$  and line  $n$  2.  $\overleftrightarrow{EC}$  3.  $\overleftrightarrow{FE}$

4.  $B$  5.  $F$  6.  $\overleftrightarrow{DC}$

7. Sample answer:



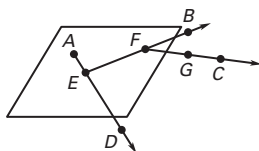
8. Sample answer:



#### Challenge Practice

1. Rays:  $\overrightarrow{DG}$ ,  $\overrightarrow{GD}$ ,  $\overrightarrow{FG}$ ,  $\overrightarrow{GF}$ ,  $\overrightarrow{FD}$ ,  $\overrightarrow{DF}$ ,  $\overrightarrow{DB}$ ,  $\overrightarrow{BD}$ ,  $\overrightarrow{DC}$ ,  $\overrightarrow{CD}$ ,  $\overrightarrow{CB}$ ,  $\overrightarrow{BC}$ ,  $\overrightarrow{CA}$ ,  $\overrightarrow{AC}$ ,  $\overrightarrow{AF}$ ,  $\overrightarrow{FA}$ ,  $\overrightarrow{EA}$ ,  $\overrightarrow{AE}$ ,  $\overrightarrow{ED}$ ,  $\overrightarrow{DE}$ ,  $\overrightarrow{DA}$ ,  $\overrightarrow{AD}$ ; Opposite rays:  $\overrightarrow{FG}$  and  $\overrightarrow{FD}$ ,  $\overrightarrow{ED}$  and  $\overrightarrow{EA}$ ,  $\overrightarrow{CD}$  and  $\overrightarrow{CB}$

2. Sample answer:



3.  $\overleftrightarrow{YT}$  4. point  $T$  5. no; yes

6.  $\overleftrightarrow{TVW}$ ,  $\overleftrightarrow{XTW}$ , and  $\overleftrightarrow{VWX}$  7.  $\overleftrightarrow{XY}$ ,  $\overleftrightarrow{ZY}$ ,  $\overleftrightarrow{TY}$

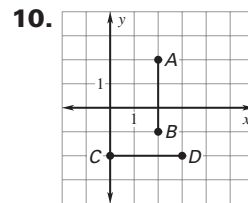
8. no 9. Yes. The given point satisfies each equation. 10. No. The given point does not satisfy each equation. 11. No. The given point does not satisfy each equation.

12. Yes. The given point satisfies each equation.

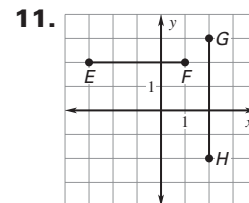
### Lesson 1.2

#### Practice Level A

1. 3.0 cm; Check drawings. 2. 1.5 cm; Check drawings. 3. 2.4 cm; Check drawings. 4. 16  
5. 36 6. 21 7. 19 8. 11 9. 42



congruent



not congruent

12. 5 13. 4 14. 6 15. 9 16. 15 17. 10

18. 9 19. 9 20. 37 21. 28 22. 6 23. 14

24. 14 25.  $3x + x = 20$ ;  $AB = 15$ ;  $BC = 5$

26.  $2x - 5 + 6x = 27$ ;  $AB = 3$ ;  $BC = 24$

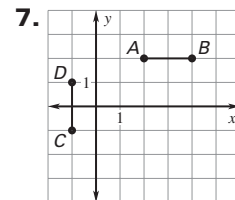
27.  $4x + 7 + 5x - 8 = 53$ ;  $AB = 31$ ;  $BC = 22$

28.  $3\frac{3}{8}$  in.;  $\frac{3}{4}$  in. 29. a. 150 mi b.  $2\frac{1}{2}$  h

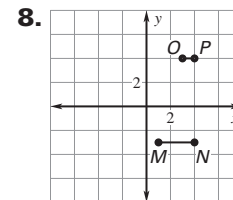
#### Practice Level B

1. 3.4 cm; Check drawings. 2. 1.8 cm; Check drawings. 3. 2.1 cm; Check drawings. 4. 25.5

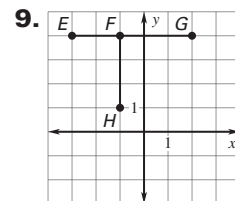
5. 29 6. 6



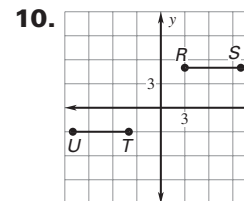
congruent



not congruent



not congruent



congruent

11. 3 12. 9 13. 4 14. 6 15. 6 16. 11