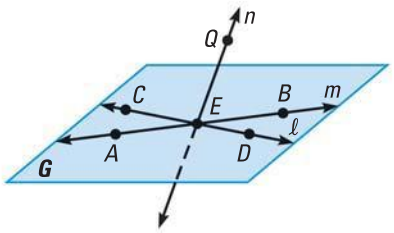
1 CHAPTER TEST

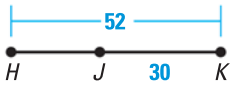
Use the diagram to decide whether the statement is *true* or *false*.



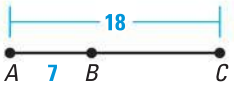
1. Point A lies on line m.
2. Point D lies on line n.
3. Points B, C, E, and Q are coplanar.
4. Points C, E, and B are collinear.
5. Another name for plane G is plane QEC.

Find the indicated length.

6. Find HJ.



7. Find BC.



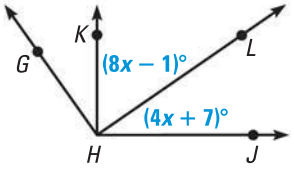
8. Find XZ.

In Exercises 9–11, find the distance between the two points.

9. $T(3, 4)$ and $W(2, 7)$
10. $C(5, 10)$ and $D(6, -1)$
11. $M(-8, 0)$ and $N(-1, 3)$

12. The midpoint of $\overline{AB}$ is $M(9, 7)$. One endpoint is $A(3, 9)$. Find the coordinates of endpoint B.
13. Line t bisects $\overline{CD}$ at point M, $CM = 3x$, and $MD = 27$. Find CD.

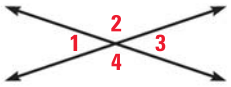
In Exercises 14 and 15, use the diagram.



14. Trace the diagram and extend the rays. Use a protractor to measure $\angle GHJ$. Classify it as *acute*, *obtuse*, *right*, or *straight*.
15. Given $m\angle KHJ = 90°$, find $m\angle LHJ$.

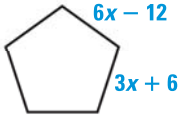
16. The measure of $\angle QRT$ is 154°, and $\overrightarrow{RS}$ bisects $\angle QRT$. What are the measures of $\angle QRS$ and $\angle SRT$?

In Exercises 17 and 18, use the diagram at the right.



17. Name four linear pairs.
18. Name two pairs of vertical angles.

19. The measure of an angle is 64°. What is the measure of its complement? What is the measure of its supplement?
20. A convex polygon has half as many sides as a concave 10-gon. Draw the concave polygon and the convex polygon. Classify the convex polygon by the number of sides it has.
21. Find the perimeter of the regular pentagon shown at the right.



22. **CARPET** You can afford to spend $300 to carpet a room that is 5.5 yards long and 4.5 yards wide. The cost to purchase and install the carpet you like is $1.50 per square foot. Can you afford to buy this carpet? *Explain*.