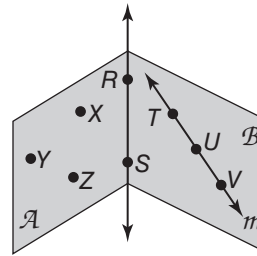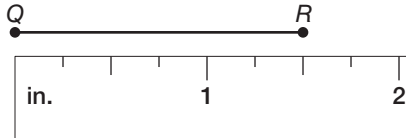**1** **Chapter 1 Test, Form 2D**

SCORE _____

For Exercises 1–4, use the figure at the right.
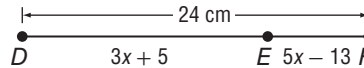
1. What is another name for line m?

2. Name three points on plane B.

3. Name the intersection of planes A and B.

4. Name three noncollinear points.

5. What is the length of $\overline{QR}$?

6. Find the length of $\overline{LO}$ if O is between points L and M, $LM = 18.6$ centimeters, and $OM = 12.9$ centimeters.
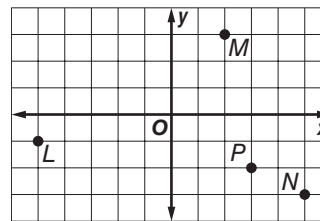
7. Find the length of $\overline{DE}$.

24 cm

D $3x + 5$ E $5x - 13$ F

8. A triangle has an area of 24 square meters. The base is two meters longer than the height. What is the length of the base of the triangle?

9. The area of a circle is equal to the area of a square measuring 5 centimeters on each side. Find the radius of the circle.

For Exercises 10–12, use the coordinate grid.

10. Find the distance between L and M.

11. Find the coordinates of the midpoint of $\overline{MN}$.

12. Find the coordinates of a point Q if P is the midpoint of $\overline{NQ}$.

13. The vertices of a triangle are located at $P(0, 6)$, $Q(8, 12)$, and $R(3, -3)$. What is the perimeter of this triangle?

14. Find the value of x if $\overline{RS}$ bisects $\overline{AB}$ and $RS = 36$.

R

18

$25 - 3x$ $2y - 5$

A T B

$2y - 6$

S

1. $\overleftrightarrow{TU}$, or $\overleftrightarrow{UV}$, or $\overleftrightarrow{TV}$

2. Sample answer: *T, U, V*

3. $\overleftrightarrow{RS}$

4. Sample answer: *X, Y, Z*

5. $1\dfrac{1}{2}$ in.

6. 5.7 cm

7. 17 cm

8. 8 m

9. 2.8 cm

10. 8.062 units

11. $\left(3\dfrac{1}{2}, 0\right)$

12. $(1, -1)$

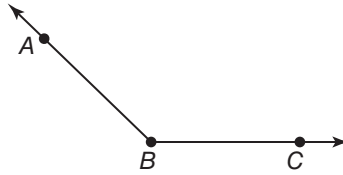13. $10 + \sqrt{90} + \sqrt{250}$ or $10 + 8\sqrt{10} \approx 35.3$ units

14. 2

63
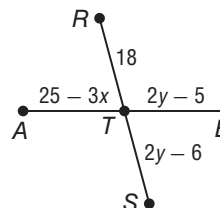
1   Chapter 1 Test, Form 2D *(continued)*

15. ~~Just~~ classify ∠*ABC* as *right*, *acute*, or *obtuse*.

15. _____**obtuse**_____

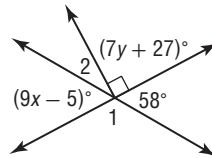**In the figure, $\overrightarrow{RC}$ and $\overrightarrow{RD}$ are opposite rays and $\overrightarrow{RQ}$ bisects ∠WRV.**
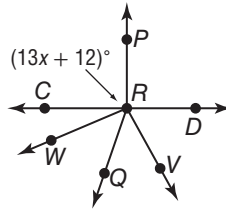
16. Find the value of *y* if *m*∠*WRQ* = 48 and *m*∠*QRV* = 7*y* + 6.

16. _____**6**_____

17. Find the value of *x* so that $\overline{CR} \perp \overline{PR}$.

17. _____**6**_____

For Exercises 18–21, use the figure at the right.

18. Find the value of *x*.

18. _____**7**_____

19. Find *m*∠1.

19. _____**122**_____

20. Find *m*∠2.

20. _____**32**_____

21. Find the value of *y*.

21. _____**9**_____

For Exercises 22–23, use the polygons at the right.
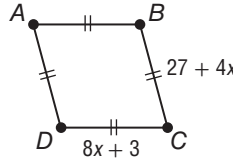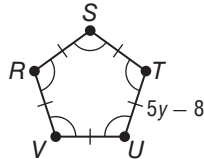
22. Name polygon *RSTUV* by its sides. Then classify it as *convex* or *concave* and *regular* or *not regular*.

22. ___**pentagon, convex, regular**___

23. Find the length of each side of polygon *ABCD*.

23. _____**51**_____

24. Two angles, ∠*A* and ∠*B*, form a linear pair. Angle *B* is an obtuse angle. What type of angle is ∠*A*?

24. _____**acute**_____

25. Nadia wants to fill her rectangular fish tank with water. The fish tank measures 2 feet wide, 1 feet long, and 1.5 feet high. The water level in her fish tank needs to be ⟦1.25⟧ foot. She uses a bucket that holds 1.25 cubic feet of water. How many buckets of water does Nadia need to fill the fish tank?

25. _____**2 buckets**_____

38) 603.2; 1131
39) 384; 384
40) 75.4; 37.7