

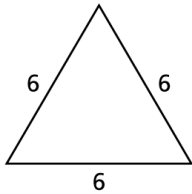
**Chapter
7****Cumulative Review**

In Exercises 1–16, solve the equation.

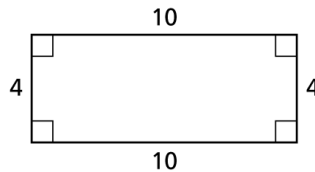
1. $6(x - 2) = 18$
2. $-4(x + 7) = 36$
3. $2(x - 3) = -16$
4. $4(6 - x) = 24$
5. $9(8 - x) = -63$
6. $5(2 + x) = -30$
7. $2(x - 6) + 12 = 32$
8. $8(x + 2) - 12 = -4$
9. $3(x - 10) + 16 = -20$
10. $6(8 - x) + 11 = -1$
11. $-2(9 - x) - 13 = -15$
12. $10(5 - x) - 14 = 16$
13. $4(x + 11) + 2(x + 9) = 44$
14. $3(x - 10) + 8(x + 1) = 11$
15. $-5(x + 2) + 2(x + 12) = 2$
16. $7(x - 1) + 4(x + 6) = -5$

In Exercises 17–22, classify the polygon.

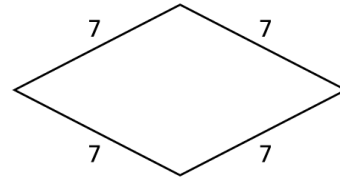
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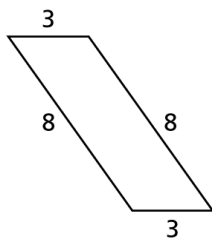
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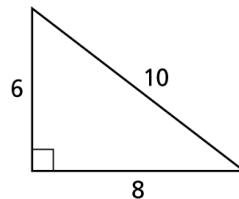
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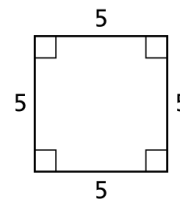
20.



21.



22.



23. The equation for the perimeter of a square can be expressed as $4(x + 2) = 44$.
 - a. What is the value of x ?
 - b. What is the side length of the square?
24. The length of a rectangle is $3x + 4$ and the width is $2x + 7$.
 - a. Write an equation for the perimeter P of the rectangle.
 - b. The perimeter of the rectangle is 62 feet. What is the value of x ?
 - c. What are the length and width of the rectangle?

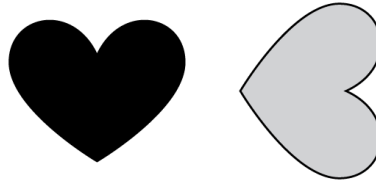
**Chapter
7****Cumulative Review (continued)**

In Exercises 25–30, tell whether the figure to the right is a *translation*, *reflection*, *rotation*, or *dilation* of the figure to the left.

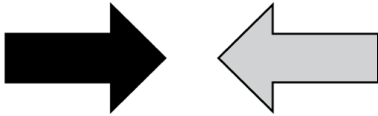
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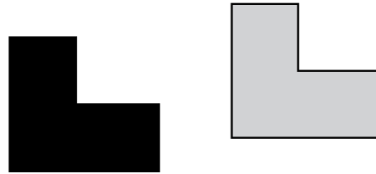
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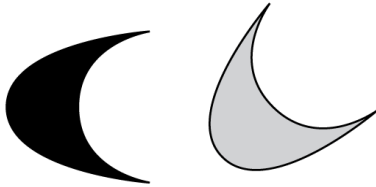
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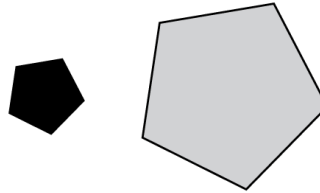
28.



29.



30.



In Exercises 31–33, use the translation $(x, y) \rightarrow (x + 2, y - 5)$.

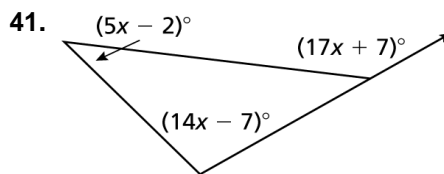
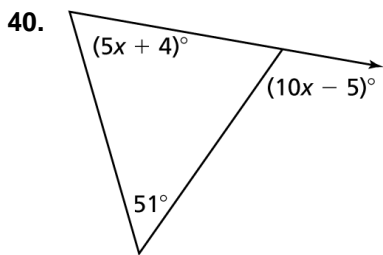
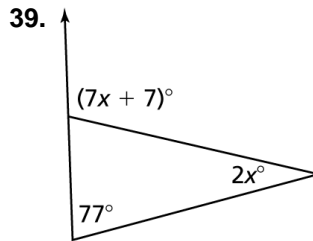
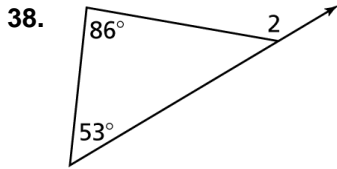
31. What is the image of $A(-3, 7)$?32. What is the image of $B(9, 8)$?33. What is the image of $C(4, -6)$?

In Exercises 34–37, use the translation $(x, y) \rightarrow (x - 4, y + 3)$.

34. What is the image of $A(8, -3)$?35. What is the image of $B(-12, -1)$?36. What is the preimage of $C'(-2, 8)$?37. What is the preimage of $D'(3, 8)$?

Chapter 7 Cumulative Review (continued)

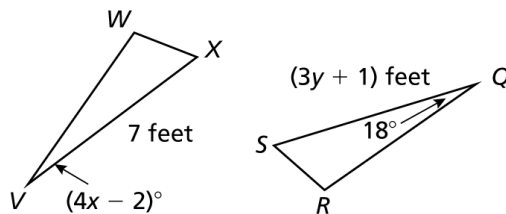
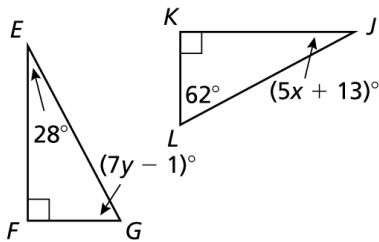
In Exercises 38–41, find the measure of the exterior angle.



In Exercises 42 and 43, find the values of x and y .

42. $\triangle EFG \cong \triangle JKL$

43. $\triangle VWX \cong \triangle QRS$

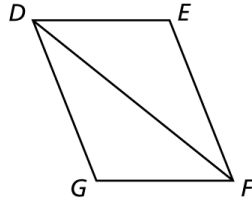


44. A right triangle has interior angles of $6x^\circ$ and $(4x + 10)^\circ$.
- What is the value of x ?
 - What is the measure of the $6x^\circ$ angle?
 - What is the measure of the $(4x + 10)^\circ$ angle?
45. A right triangle has interior angles of $(4x + 1)^\circ$ and $(19x - 3)^\circ$.
- What is the value of x ?
 - What is the measure of the $(4x + 1)^\circ$ angle?
 - What is the measure of the $(19x - 3)^\circ$ angle?

Chapter 7

Cumulative Review (continued)

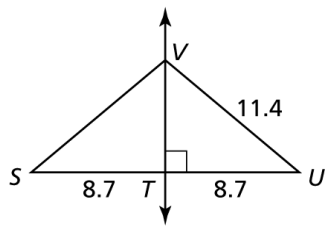
In Exercises 46–53, name the included angle between the pair of sides given.



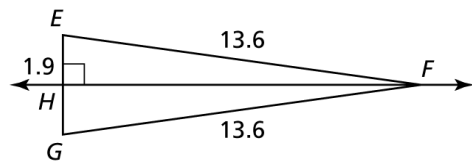
46. \overline{GD} and \overline{GF} 47. \overline{EF} and \overline{GF} 48. \overline{GD} and \overline{FD} 49. \overline{FE} and \overline{ED}
 50. \overline{ED} and \overline{FD} 51. \overline{DF} and \overline{EF} 52. \overline{ED} and \overline{GD} 53. \overline{GF} and \overline{DF}

In Exercises 54–57, find the indicated measure. Explain your reasoning.

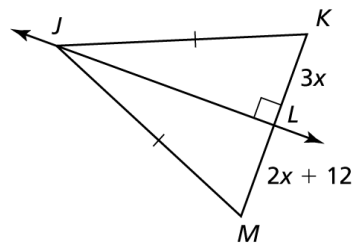
54. SV



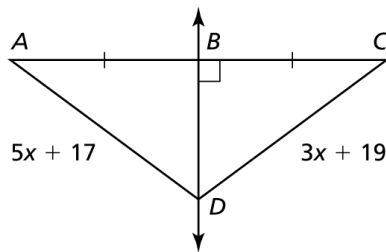
55. GH



56. KL



57. AD



58. A line segment AC is bisected by point B . The length of AB is $8x + 12$ and the length of BC is $6x + 18$.
- What is the value of x ?
 - What is the length of \overline{AB} ?
 - What is the length of \overline{AC} ?