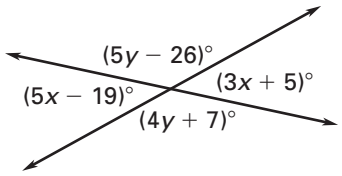
Name _____ Date _____

CHAPTER 12 Cumulative Review

For use after Chapter 12

Find the values of *x* and *y*.

1.



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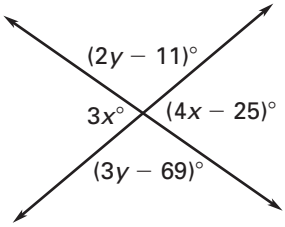
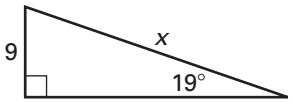


3. Graph the triangle with vertices $X(-2, 5)$, $Y(1, 3)$, and $Z(3, -4)$. Then graph a triangle congruent to $\triangle XYZ$.

Find the value of *x*. Round your answers to the nearest tenth.

4.



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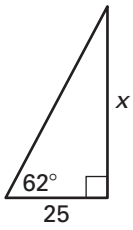

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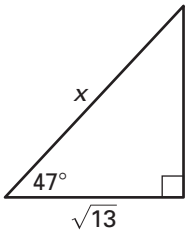


Find the sum of the measures of the interior angles of the indicated convex polygon.

7. 13-gon **8.** octagon **9.** 22-gon **10.** pentagon

Points *P*, *Q*, *R*, and *S* are the vertices of a quadrilateral. Give the most specific name for *PQRS*. *Justify* your answer.

11. $P(0, -1)$, $Q(2, -1)$, $R(5, -6)$, $S(0, -3)$

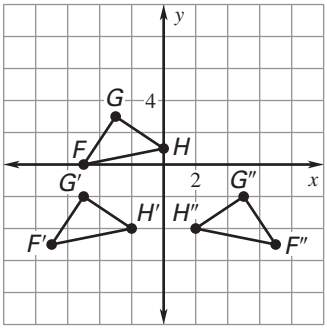
12. $P(5, 1)$, $Q(-1, 5)$, $R(-1, 3)$, $S(-3, 1)$

13. $P(-2, 4)$, $Q(-6, 6)$, $R(-9, 3)$, $S(-5, 1)$

14. $P(1, 2)$, $Q(2, 4)$, $R(1, 6)$, $S(0, 4)$

Describe the composition of transformations.

15.



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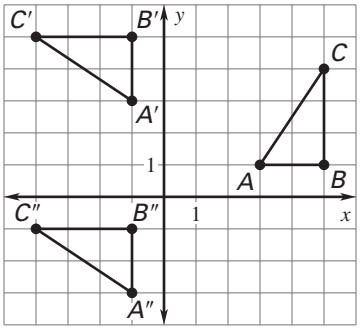


Name _____ Date _____

CHAPTER 12

Cumulative Review *continued*

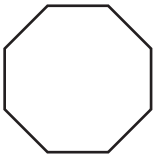
For use after Chapter 12

How many lines of symmetry does the figure have?

17. A rectangle

18. An isosceles trapezoid

19. A regular octagon



Use the given information to write the standard equation of the circle.

20. The center is $(-3, 2)$ and a point on the circle is $(5, 2)$.

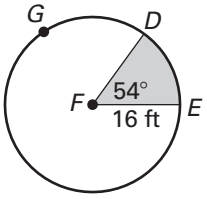
21. The center is $(6, -1)$ and a point on the circle is $(-1, 6)$.

~~**The ratio of the areas of two similar figures is given. Write the ratio of the lengths of the corresponding sides.**~~

~~**22.** Ratio of areas = 25 : 9~~ ~~**23.** Ratio of areas = 169 : 225~~ ~~**24.** Ratio of areas = 3 : 4~~

Find the areas of the sectors formed by $\angle DFE$. Round your answers to the nearest tenth.

25.



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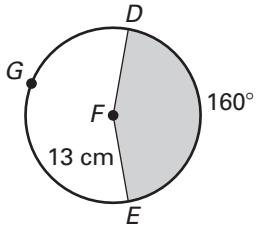
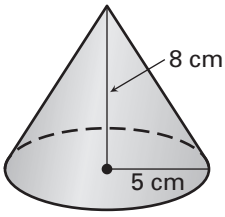


Find the surface area and the volume for each right solid. Round your answers to two decimal places, if necessary.

27.



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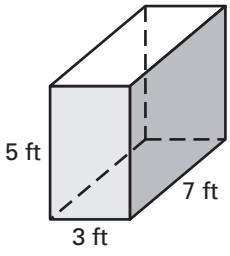

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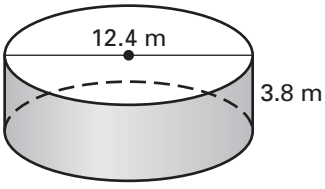

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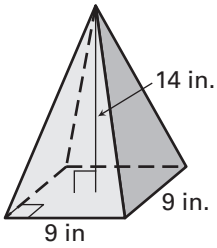

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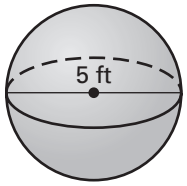

32.