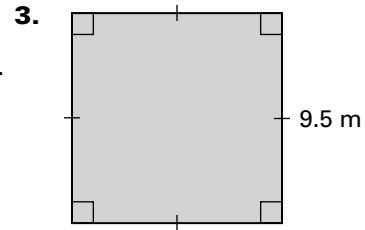
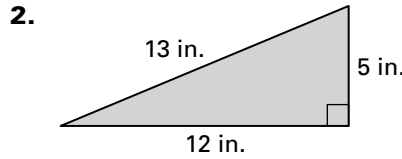
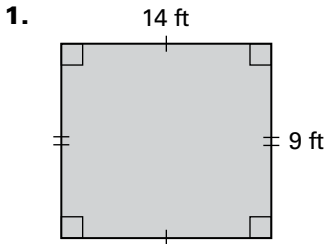
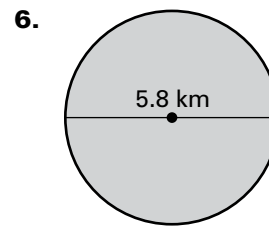
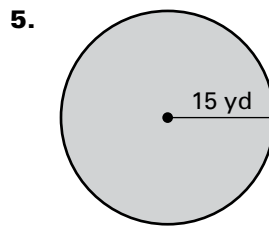
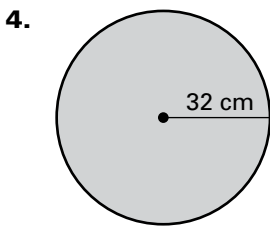


LESSON 1.7 Practice B
For use with pages 49–56

Find the perimeter and area of the figure.

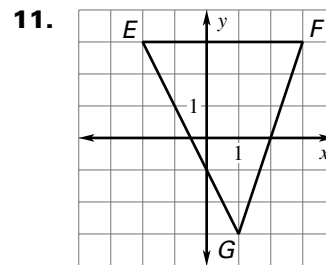
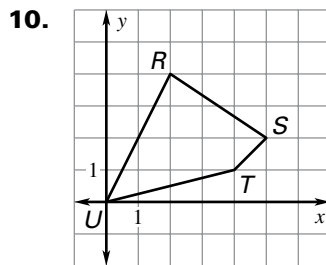
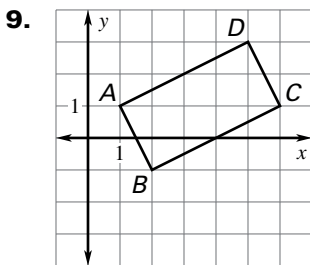


Find the circumference and area of the circle. Round to the nearest tenth.



7. A triangle has a base of 6 miles and a height of 2 miles. Sketch the triangle and find its area.
8. A circle has a radius of 25 inches. Sketch the circle and find its area. Round your answer to the nearest tenth.

Find the perimeter of the figure. Round to the nearest tenth of a unit.



12. The area of a triangle is 48 square inches, and its height is 16 inches. Find the base of the triangle.
13. The area of a rectangle is 365.2 square meters, and its length is 22 meters. Find the width of the rectangle.

Copy and complete the statement.

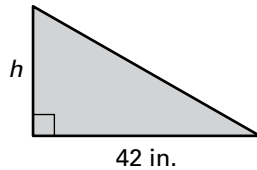
14. $72 \text{ cm}^2 = \underline{\quad} \text{ m}^2$ 15. $22 \text{ m}^2 = \underline{\quad} \text{ km}^2$ 16. $18 \text{ in.}^2 = \underline{\quad} \text{ ft}^2$
17. $14 \text{ yd}^2 = \underline{\quad} \text{ ft}^2$ 18. $13 \text{ cm}^2 = \underline{\quad} \text{ mm}^2$ 19. $1.5 \text{ km}^2 = \underline{\quad} \text{ m}^2$
20. $585 \text{ ft}^2 = \underline{\quad} \text{ yd}^2$ 21. $12 \text{ ft}^2 = \underline{\quad} \text{ in.}^2$ 22. $100 \text{ mm}^2 = \underline{\quad} \text{ cm}^2$

LESSON
1.7
Practice B *continued*
 For use with pages 49–56

Use the information about the figure to find the indicated measure.

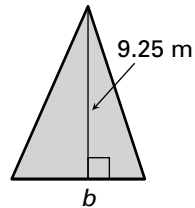
23. Area = 504 in.^2

Find the height h .



24. Area = 55.5 m^2

Find the base b .



25. Perimeter = 112.5 m

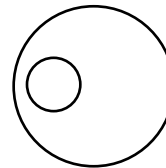
Find the length l .



26. The perimeter of a rectangle 28.8 centimeters. The length of the rectangle is twice as long as its width. Find the length and width of the rectangle.

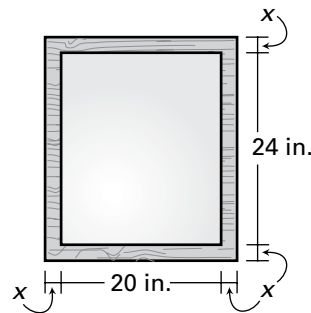
27. The area of a triangle is 338 square yards. The height of the triangle is four times its base. Find the height and base of the triangle.

28. In the figure, the radius of the large circle is three times the radius of the small circle. About what percent of the large circle is covered by the small circle?



29. **Land** You are planting grass on a square plot of land. You are also building a fence around the edge of the plot. The side length of the plot is 54 yards. How much area do you need to cover with grass seed? How many feet of fencing do you need?

30. **Windows** You make a window out of a rectangular pane of glass by surrounding it with a wooden frame that is x inches wide. The pane of glass is 20 inches long and 24 inches wide. The perimeter of the window is $8\frac{2}{3}$ feet. What is the value of x ?



31. **Looms** A triangular loom used for knitting covers an area of 12.25 square feet. It has a base that is twice as long as its height.
- Sketch and label a diagram for the situation.
 - Find the base and the height of the loom.
 - Suppose the base of the loom was increased by 6 inches while the height remained the same. The area that the loom covers increased by how many square inches? square feet?

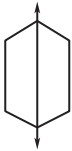
Lesson 1.6, continued

Review for Mastery

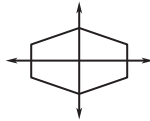
1. not a polygon 2. polygon; convex 3. not a polygon 4. polygon; concave 5. quadrilateral; regular, equilateral, equiangular 6. 16 mm

Challenge Practice

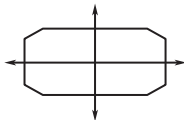
1. Sample answer:



2. Sample answer:



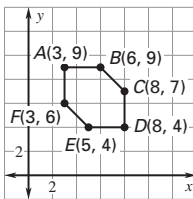
3. Sample answer:



4. Sample answer:

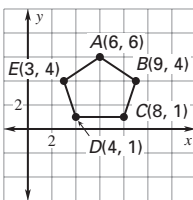


5.



Hexagon; not equilateral because $AB = 3$, $BC = 2\sqrt{2}$, $CD = 3$, $DE = 3$, $EF = 2\sqrt{2}$, $FA = 3$.

6.



Pentagon; not equilateral because $AB = \sqrt{13}$, $BC = \sqrt{10}$, $CD = 4$, $DE = \sqrt{10}$, $EA = \sqrt{13}$.

7. $x = 12, y = 8$ 8. $x = 6, y = 7$

9. $x = 20, y = 16$

10. The midpoint of the diagonal between (b, c) and $(a, 0)$ is $(\frac{a+b}{2}, \frac{c}{2})$. The midpoint of the diagonal between $(a+b, c)$ and $(0, 0)$ is $(\frac{a+b}{2}, \frac{c}{2})$. So, the diagonals intersect at their midpoints.

Lesson 1.7

Practice Level A

1. $P = 32$ in., $A = 64$ in.² 2. $P = 42$ ft, $A = 98$ ft² 3. $P = 54$ m, $A = 170$ m²

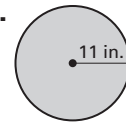
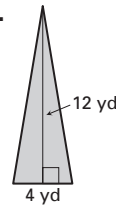
4. $P = 80$ in., $A = 240$ in.² 5. $P = 64$ yd, $A = 192$ yd² 6. $P = 107$ cm, $A = 360$ cm²

7. $C = 18.8$ ft, $A = 28.3$ ft² 8. $C = 50.3$ m, $A = 201.1$ m²

9. $C = 153.9$ cm, $A = 1885.7$ cm²

10. 24 yd²

11. 380.1 in.²



12. 16 units 13. 17.7 units 14. 17.8 units

15. 0.0054 16. 0.54 17. 207 18. 0.96

19. 0.003 20. 2160 21. 29 ft 22. 18 m

23. 18 cm 24. 29 in. 25. 17 m 26. 3 gal

27. 252 ft²; 432 in. 28. 58.27 ft

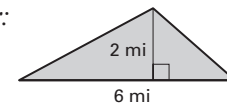
Practice Level B

1. 46 ft; 126 ft² 2. 30 in.; 30 in.²

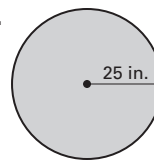
3. 38 m; $90\frac{1}{4}$ m² 4. 201.0 cm; 3215.4 cm²

5. 94.2 yd; 706.5 yd² 6. 18.2 km; 26.4 km²

7. Sample answer: 6 mi²



8. 1962.5 in.²



9. 13.4 units 10. 13.6 units 11. 18.0 units

12. 6 in. 13. 16.6 m 14. 0.0072 15. 0.000022

16. 0.125 17. 126 18. 1300 19. 1,500,000

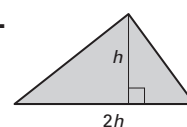
20. 65 21. 1728 22. 1 23. 24 in. 24. 12 m

25. $43\frac{3}{4}$ m 26. length = 9.6 cm, width = 4.8 cm

27. height = 52 yd, base = 13 yd

28. $\frac{1}{9} \approx 11\%$ 29. 2916 yd²; 648 ft 30. 2

31. a.



b. base = 7 ft, height = 3.5 ft

c. 126 in.²; 0.875 ft²

Practice Level C

1. $P = 11$ m, $A = 7.6$ m² 2. $P = 40.8$ cm, $A = 93.2$ cm² 3. $P = 200$ in., $A = 1320$ in.²

4. $C = 33.3$ cm, $A = 88.2$ m²

5. $C = 55.9$ ft, $A = 248.8$ ft²