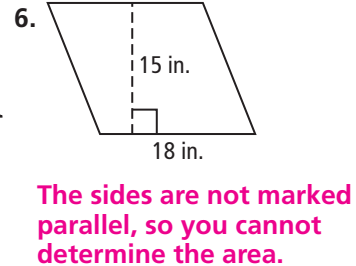
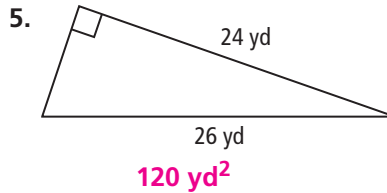
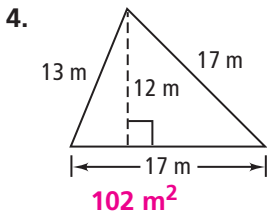
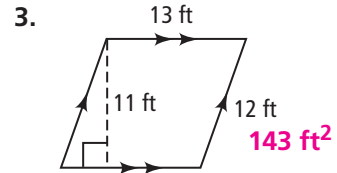
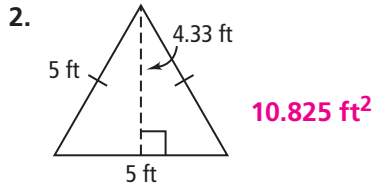
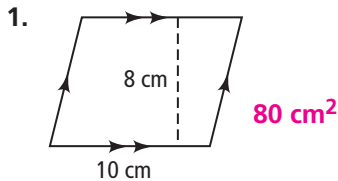


# Extra Practice

## Chapter 10

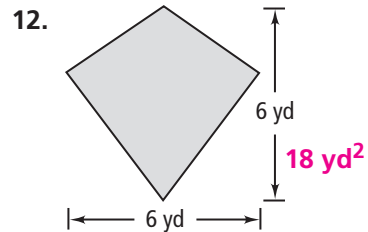
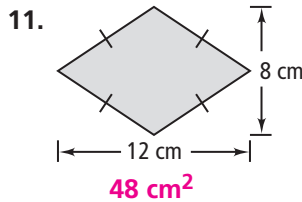
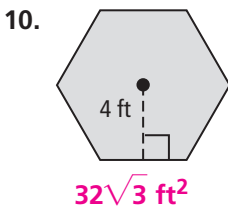
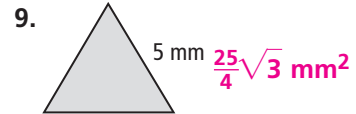
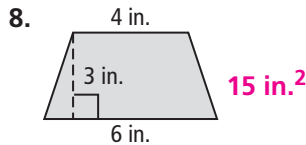
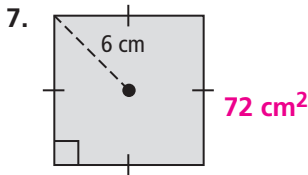
### Lesson 10-1

Find the area of each figure. If not possible, state why.

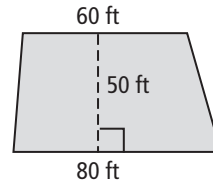


### Lessons 10-2 and 10-3

Find the area of each trapezoid, rhombus, kite, or regular polygon. Leave your answer in simplest radical form.

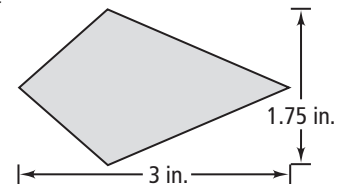


13. The patio section of a restaurant is a trapezoid with the dimensions shown in the figure. What is the area of the patio section?  $3500 \text{ ft}^2$



14. A mosaic design uses kite-shaped tiles with the dimensions shown in the figure. What is the area of each tile?  $2.625 \text{ in.}^2$

15. The tiles for a bathroom floor are regular hexagons that are  $\frac{5}{8}$  in. on each side. Find the area of an individual tile. Express the answer in radical form.  $\frac{73\sqrt{3}}{128} \text{ in.}^2$



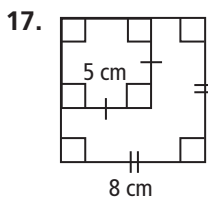
16. The floor of a gazebo is a regular hexagon with sides that are 9 ft long. What is the area of the floor? Round to the nearest square foot.  $210 \text{ ft}^2$

## Extra Practice (continued)

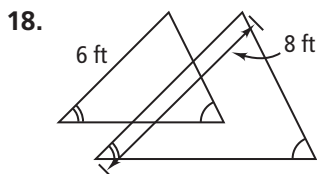
### Chapter 10

#### Lesson 10-4

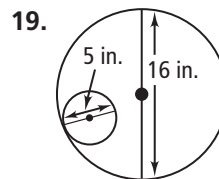
Find the ratio of the perimeters and the ratio of the areas of the small figure to the large figure.



**5 : 8; 25 : 64**



**3 : 4;  
9 : 16**



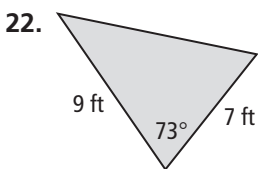
**5 : 16;  
25 : 256**

20. A triangular banner has an area of  $315 \text{ in.}^2$ . A similar banner has sides  $\frac{1}{3}$  times as long as those of the smaller banner. What is the area of the larger banner?  **$560 \text{ in.}^2$**

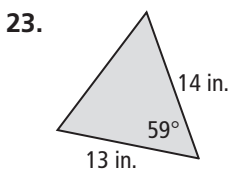
21. You want to enlarge the picture on the front of a postcard by 10%. If the perimeter of the postcard is 44 cm, what will be the perimeter of the enlargement? **48.4 cm**

#### Lesson 10-5

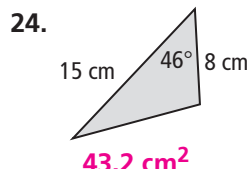
Find the area of each polygon. Round your answers to the nearest tenth.



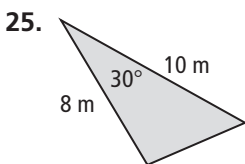
**$30.1 \text{ ft}^2$**



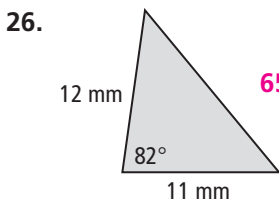
**$78.0 \text{ in.}^2$**



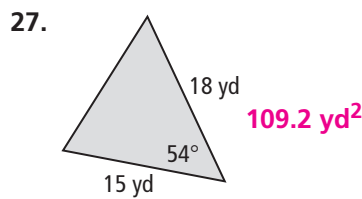
**$43.2 \text{ cm}^2$**



**$20 \text{ m}^2$**



**$65.4 \text{ mm}^2$**



**$109.2 \text{ yd}^2$**

28. a regular hexagon with an apothem of 3 ft  **$31.2 \text{ ft}^2$**

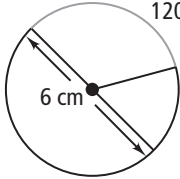
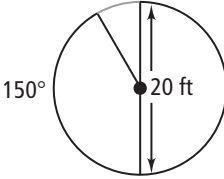
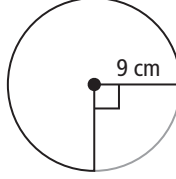
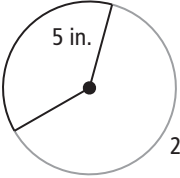
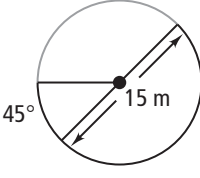
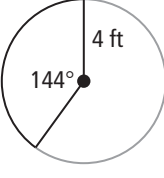
29. a regular octagon with radius 5 ft  **$70.7 \text{ ft}^2$**

## Extra Practice (continued)

### Chapter 10

#### Lesson 10-6

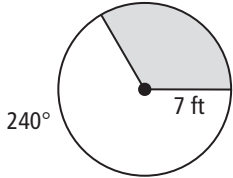
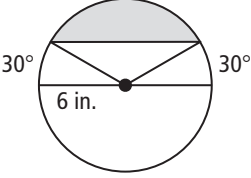
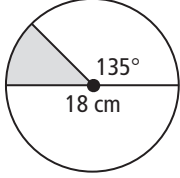
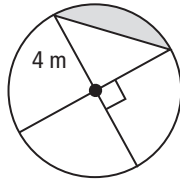
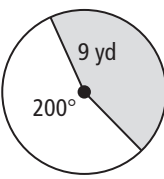
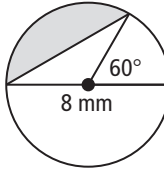
(a) Find the circumference of each circle. (b) Find the length of the arc shown in gray. Leave your answers in terms of  $\pi$ .

30.  a.  $6\pi$  cm  
b.  $2\pi$  cm
31.  a.  $20\pi$  ft  
b.  $\frac{5}{3}\pi$  ft
32.  a.  $18\pi$  cm;  
b.  $\frac{9}{2}\pi$  cm
33.  a.  $10\pi$  in.  
b.  $\frac{25}{4}\pi$  in.
34.  a.  $15\pi$  m  
b.  $\frac{45}{8}\pi$  m
35.  a.  $8\pi$  ft  
b.  $\frac{24}{5}\pi$  ft

36. A bicycle wheel has a radius of 0.33 m. How many revolutions does the wheel make when the bicycle is ridden 1 km? Round to the nearest whole number. **482**

#### Lesson 10-7

Find the area of each shaded sector or segment. Leave your answers in terms of  $\pi$ .

37.   $\frac{49}{3}\pi$  ft<sup>2</sup>
38.   $(12\pi - 9\sqrt{3})$  in.<sup>2</sup>
39.   $\frac{81}{8}\pi$  cm<sup>2</sup>
40.   $(4\pi - 8)$  m<sup>2</sup>
41.   $36\pi$  yd<sup>2</sup>
42.   $(\frac{16}{3}\pi - 4\sqrt{3})$  mm<sup>2</sup>

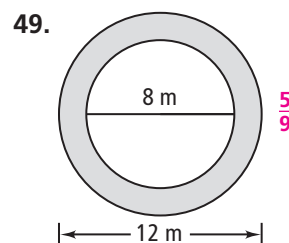
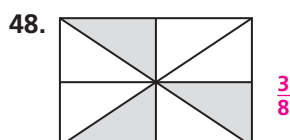
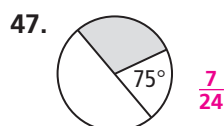
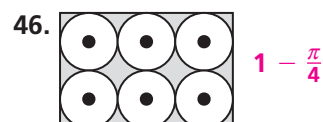
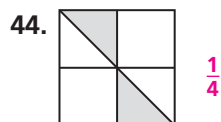
43. A 14-in. diameter pizza is cut into 6 equal slices. About how many square inches of pizza are in each slice? Round to the nearest square inch. **26 in.<sup>2</sup>**

## Extra Practice (continued)

### Chapter 10

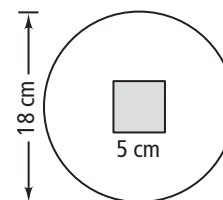
#### Lesson 10-8

Darts are thrown at random at each of the boards shown. If a dart hits the board, find the probability that it will land in the shaded area.



50. A square garden that is 80 ft on each side is surrounded by a cobblestone street that is 8 ft wide. If a child's balloon lands at random in the region formed by the garden and street, what is the probability that it lands on the street?  $\frac{11}{36}$

51. A dart hits the circular board shown in the figure at a random point. What is the probability that it does not hit the shaded square? Express your answer in terms of  $\pi$ .  $1 - \frac{25}{81\pi}$



52. A bus runs every 30 minutes. If you arrive at the bus stop at a random time, what is the probability that you will not have to wait more than 12 minutes for the bus?  $\frac{2}{5}$