Find the perimeter and area of each parallelogram or triangle. Round to the nearest tenth if necessary. (Lesson 11-1)

1.

25 in. 20 in.
21 in.

2.

15 cm
16 cm 9 cm

3.

31 m
21 m
17 m 18 m

4.

44 ft
30°
19 ft
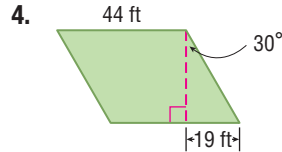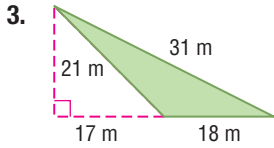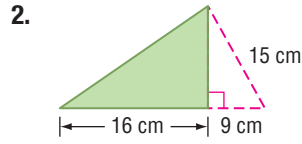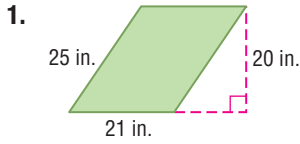
5. The height of a triangle is 8 inches more than its base. The area of the triangle is 104.5 square inches. Find the base and height. (Lesson 11-1)

6. DESIGN A plaque is made with a rhombus in the middle. If the diagonals of the rhombus measure 7 inches and 9 inches, how much space is available for engraving text onto the award? (Lesson 11-2)

Outstanding Community Service

7. MULTIPLE CHOICE The area of a kite is 4 square feet. If the tail is to be 3 times longer than the kite's long diagonal, and the short diagonal measures 2 feet, how long should the kite's tail be? (Lesson 11-2)

A 4 feet C 7 feet

B 6 feet D 12 feet

Find the area of each trapezoid, rhombus, or kite. (Lesson 11-2)

8.

19 in.
20 in.
2 in. 10 in.

9.

4 ft
7 ft 11 ft

10.

12 mm
22 mm

11.

14 cm
10 cm
15 cm
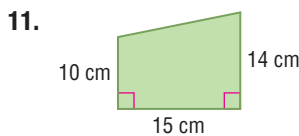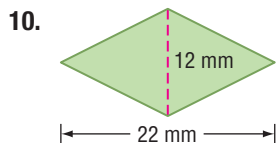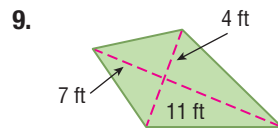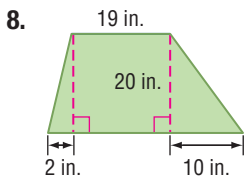
12. ARCHAEOLOGY The most predominant shape in Incan architecture is the trapezoid. The doorway pictured below is 3 feet wide at the top and 4 feet wide at the bottom. A person who is 5 feet 8 inches tall can barely pass through the doorway. How much fabric would be necessary to make a curtain for the doorway? (Lesson 11-2)

13. ALGEBRA A sector of a circle has a central angle measure of 30° and radius r. Write an expression for the perimeter of the sector in terms of r. (Lesson 11-3)

Find the area of each shaded sector. Round to the nearest tenth. (Lesson 11-3)

14.

W
2 cm 52°
X Y

15.

J
85° K
9.3 in.
L

16.

A B 2.4 ft
161°
C

17.

S 15 mm
93°
R T
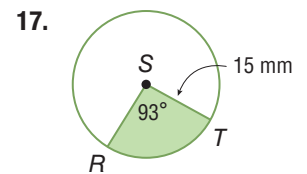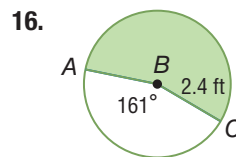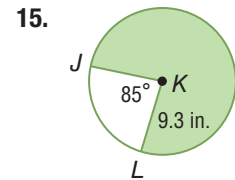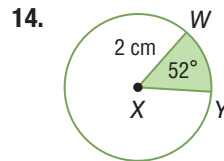
Find the indicated measure. Round to the nearest tenth. (Lesson 11-3)

18. The area of a circle is 52 square inches. Find the diameter.

19. Find the radius of a circle with an area of 104 square meters.

20. FRUIT The diameter of the orange slice shown is 9 centimeters. If each of the orange's 10 sections are congruent, find the approximate area covered by 8 sections. (Lesson 11-3)