Name _____ Class _____ Date_____

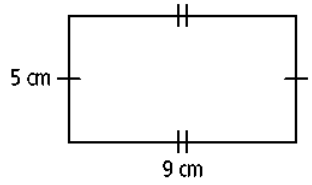
1-8 Practice

Form G

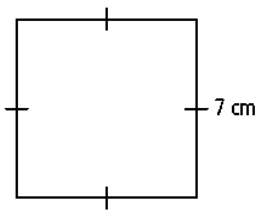
Perimeter, Circumference, and Area

Find the perimeter of each figure.

1.



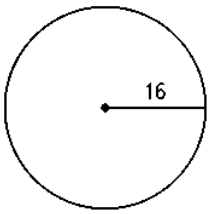
2.



3. An 8-ft-by-10-ft rug leaves 1 ft of the bedroom floor exposed on all four sides. Find the perimeter of the bedroom floor.

Find the circumference of each circle in terms of π.

4.



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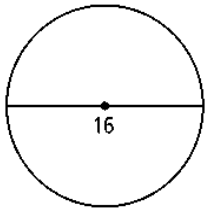
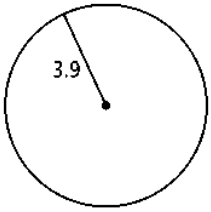


6.



Graph each figure in the coordinate plane. Find the perimeter.

7. $X(-4, 2)$, $Y(2, 10)$, $Z(2, 2)$

8. $R(1, 2)$, $S(1, -2)$, $T(4, -2)$

9. $A(0, 0)$, $B(0, 5)$, $C(6, 5)$, $D(6, 0)$

10. $L(-3, 2)$, $M(2, 14)$, $N(2, 20)$, $P(-3, 20)$

Find the area of the rectangle with the given base and height.

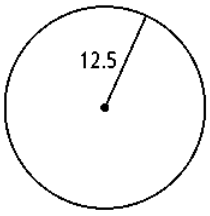
11. 4 ft, 15 in.

12. 90 in., 3 yd

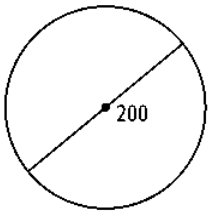
13. 3 m, 130 cm

Find the area of each circle in terms of π.

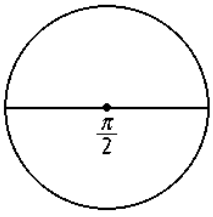
14.



15.



16.



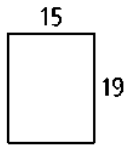
Name _____ Class _____ Date_____

1-8 Practice (continued) *Form G*

Perimeter, Circumference, and Area

Find the area of each shaded region. All angles are right angles.

17.



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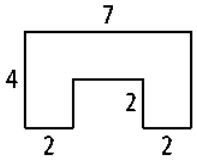
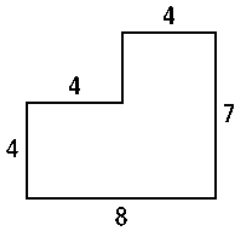


19.



Find the circumference and area of each circle, using π = 3.14. If necessary, round to the nearest tenth.

20. $r = 5$ m

21. $d = 2.1$ in.

22. $d = 2$ m

23. $r = 4.7$ ft

24. The area of a circle is 25 π in.^{2}. What is its radius?

25. A rectangle has twice the area of a square. The rectangle is 18 in. by 4 in. What is the perimeter of the square?

26. Reasoning If two circles have the same circumference, what do you know about their areas? Explain.

27. Coordinate Geometry The center of a circle is $A(-3, 3)$, and $B(1, 6)$ is on the circle. Find the area of the circle in terms of π.

28. Algebra Use the formula for the circumference of a circle to write a formula for the area of a circle in terms of its circumference.

29. Coordinate Geometry On graph paper, draw polygon *ABCDEF* with vertices $A(0, 0)$, $B(0, 10)$, $C(5, 10)$, $D(5, 7)$, $E(9, 7)$, and $F(9, 0)$. Find the perimeter and the area of the polygon.

30. The units of the floor plan at the right are in feet. Find the perimeter and area of each room.

a. the kitchen

b. the bedroom

c. the bathroom

d. the closet

e. What is the area of the main hallway? Explain how you could find this area using the area of each room.