1. Find the circumference.

8 ft

2. Find the circumference.

13 in.

3. Find the radius.

r

$C = 65.98$ cm

Find the indicated measure.

4. The exact radius of a circle with circumference 42 meters

5. The exact diameter of a circle with circumference 39 centimeters

6. The exact circumference of a circle with diameter 15 inches

7. The exact circumference of a circle with radius 27 feet

Find the length of $\overset{\frown}{AB}$.

8.

A
6 cm
60°
P
B

9.

B
150° P
18 in.
A

10.

A
B
30°
P
28 ft
C
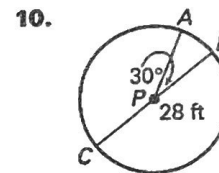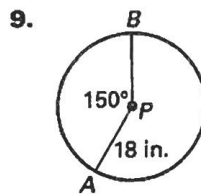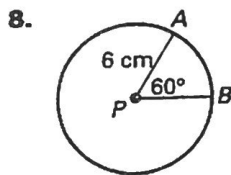
In ⊙D shown below, ∠EDF ≅ ∠FDG. Find the indicated measure.

11. $m\overset{\frown}{EFG}$

12. $m\overset{\frown}{EHG}$

13. Length of $\overset{\frown}{EFG}$

14. Length of $\overset{\frown}{EHG}$

15. $m\overset{\frown}{EHF}$

16. Length of $\overset{\frown}{FEG}$

H
D
80° G
E
7 m
F
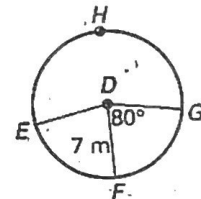
Find the indicated measure.

17. $m\overset{\frown}{AB}$

12 in.
A
C
23.88 in.
B

18. Circumference of ⊙F

D
46.75 ft
290° F
E

19. Radius of ⊙J

H
19.71 cm
55° J
G
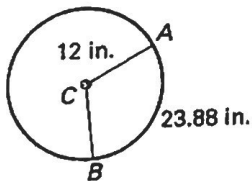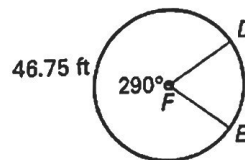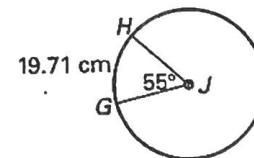
Find the perimeter of the region.

20.

5 mm

21.

41 in.

11 in.   11 in.

41 in.
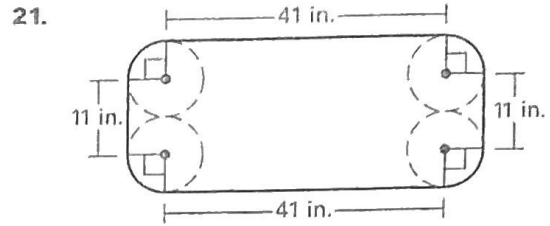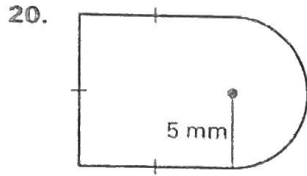
22. In the table below, $\overset{\frown}{AB}$ refers to the arc of a circle. Complete the table.

Radius	4	11	?	?	9.5	10.7
m$\overset{\frown}{AB}$	30°	?	105°	75°	?	270°
Length of $\overset{\frown}{AB}$	?	8.26	17.94	6.3	14.63	?

23. **Bicycles** The chain of a bicycle travels along the front and rear sprockets, as shown. The circumference of each sprocket is given.

10 in.

160°   185°

10 in.

rear sprocket   front sprocket
C = 12 in.   C = 20 in.
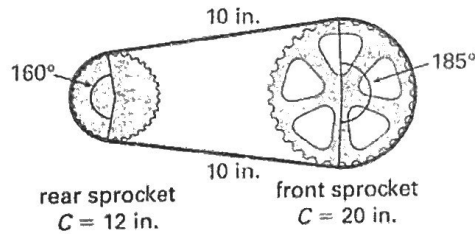
a. About how long is the chain?

b. On a chain, the teeth are spaced in $\frac{1}{2}$ inch intervals. About how many teeth are there on this chain?

24. **Enclosing a Garden** You have planted a circular garden with its center at one of the corners of your garage, as shown. You want to fence in your garden. About how much fencing do you need?

⊢12 ft⊣