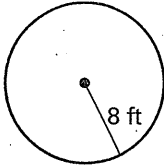


LESSON 11.4 Practice
For use with pages 746-752

Use the diagram to find the indicated measure. *nearest hundredth*

1. Find the circumference.

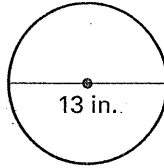


$$C = 2\pi r$$

$$= 16\pi$$

$$C \approx 50.27 \text{ ft}$$

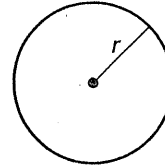
2. Find the circumference.



$$C = 13\pi$$

$$\approx 40.84 \text{ in}$$

3. Find the radius.



$C = 65.98 \text{ cm}$

$$65.98 = 2\pi r$$

$$\frac{65.98}{2\pi} = \frac{2\pi r}{2\pi}$$

$$10.50 \text{ cm} \approx r$$

Find the indicated measure.

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

$$\frac{42}{2\pi} = \frac{2\pi r}{2\pi}$$

$$\frac{21 \text{ m}}{\pi} = r$$

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

$$\frac{39}{\pi} = \frac{\pi d}{\pi}$$

$$\frac{39 \text{ cm}}{\pi} = d$$

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

$$C = 15\pi \text{ in}$$

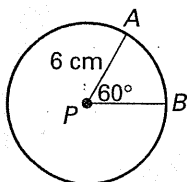
7. The exact circumference of a circle with radius 27 feet

$$C = 2\pi 27$$

$$C = 54\pi \text{ ft}$$

Find the length of \widehat{AB} .

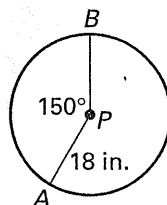
8.



$$\frac{\text{Arc length } \widehat{AB}}{2\pi 6} = \frac{60^\circ}{360^\circ}$$

$$\text{Arc length } \widehat{AB} \approx 6.28 \text{ cm}$$

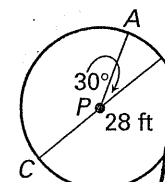
9.



$$\frac{\text{Arc length } \widehat{AB}}{2\pi 18} = \frac{150^\circ}{360^\circ}$$

$$\text{Arc length } \widehat{AB} = 47.12 \text{ ft}$$

10.



$$\frac{\text{Arc length } \widehat{AB}}{2\pi 28} = \frac{30^\circ}{360^\circ}$$

$$\text{length } \widehat{AB} = 14.66 \text{ ft}$$

or

$$\frac{\text{length } \widehat{AB}}{28\pi} = \frac{30}{360}$$

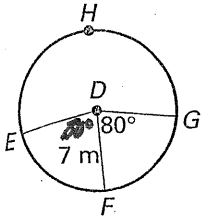
$$\text{length } \widehat{AB} = 7.33 \text{ ft}$$

$28 = d$

LESSON
11.4

Practice continued
For use with pages 746-752

In $\odot D$ shown below, $\angle EDF \cong \angle FDG$. Find the indicated measure.



11. $m\widehat{EFG}$
 $m\widehat{EFG} = 160^\circ$

12. $m\widehat{EHG}$
 $360 - 160$
 $m\widehat{EHG} = 200^\circ$

13. Length of \widehat{EFG}
 $\frac{\text{Length } \widehat{EFG}}{2\pi r} = \frac{160^\circ}{360^\circ}$

Length of $\widehat{EFG} = 19.55 \text{ m}$

14. Length of \widehat{EHG}
 $\frac{\text{length } \widehat{EHG}}{2\pi r} = \frac{200^\circ}{360^\circ}$

length $\widehat{EHG} = 24.43 \text{ m}$

15. $m\widehat{EHF}$
 $360 - 80$
 $= 280^\circ$

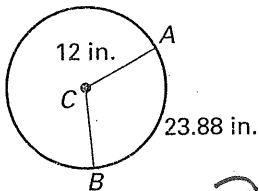
16. Length of \widehat{FEG}
 $\frac{\text{length of } \widehat{FEG}}{2\pi r} = \frac{280^\circ}{360^\circ}$

$m\widehat{FEG} = \frac{360 - 80}{2} = 140^\circ$

length of $\widehat{FEG} = 34.21$

Find the indicated measure. * Cross multiply

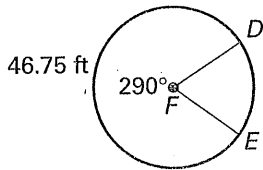
17. $m\widehat{AB}$



$\frac{23.88}{2\pi \cdot 12} = \frac{m\widehat{AB}}{360^\circ}$

$114.02^\circ = m\widehat{AB}$

18. Circumference of $\odot F$

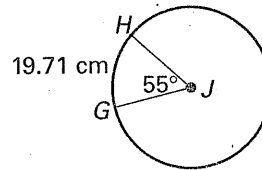


$C \cdot \frac{46.75}{360} = \frac{290}{360} \cdot C$

$(\frac{360}{290}) 46.75 = (\frac{290}{360} \cdot C) \frac{360}{290}$

$C = 58.03 \text{ ft}$

19. Radius of $\odot J$



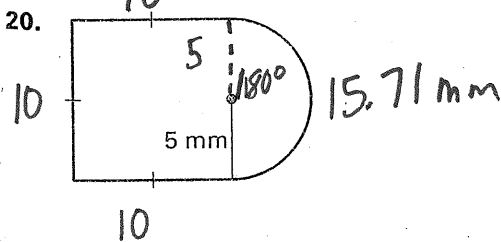
$\frac{19.71}{2\pi r} = \frac{55^\circ}{360^\circ}$

$19.71 = \frac{55}{360} \cdot 2\pi r$

$\frac{360(19.71)}{110\pi} = \frac{110\pi}{360} \cdot r \cdot \frac{36}{110}$

$20.53 \text{ cm} = r$

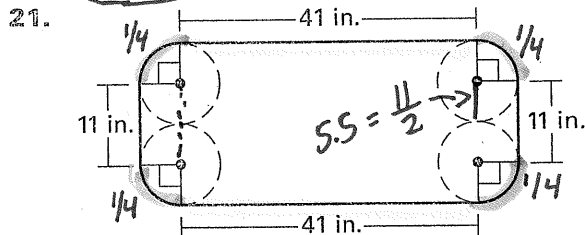
Find the perimeter of the region.



$\frac{10\pi}{2} = \frac{180}{360} \cdot 10\pi$

length arc = 15.71 mm

$P = 10 + 10 + 10 + 15.71 = 45.71 \text{ mm}$



$P = 41 + 41 + 11 + 11 + \text{Circumference}$
 $= 104 + 11\pi$

$P = 138.56 \text{ in}$