

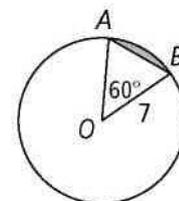
# 10-7 Practice

## Areas of Circles and Sectors

Form G

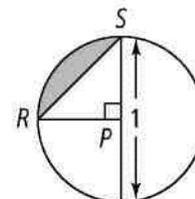
Find the area of each of the following. Leave your answer in terms of  $\pi$ .

- 1.  $\odot O$
- 2.  $\triangle AOB$
- 3. sector  $AOB$
- 4. the shaded segment



Find the area of each of the following. Leave your answer in terms of  $\pi$ .

- 5.  $\odot P$
- 6.  $\triangle RPS$
- 7. sector  $RPS$
- 8. the shaded segment



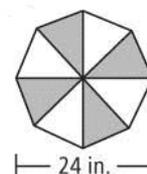
Find the area of each shaded sector of a circle. Leave your answer in terms of  $\pi$ .

- 9.
- 10.
- 11.
- 12.
- 13.
- 14.
- 15.
- 16.
- 17.

Find the area of each shaded segment. Round your answer to the nearest tenth.

- 18.
- 19.
- 20.

- 21. The table in the figure at the right is 24 in. across. The shaded regions are made of mahogany. What is the area of the mahogany? Round your answer to the nearest tenth.



# 10-7

## Practice (continued)

Form G

### Areas of Circles and Sectors

Find the area of sector  $RST$  in  $\odot S$  using the given information. Leave your answer in terms of  $\pi$ .

22.  $r = 3$  in.,  $m\widehat{RT} = 30$

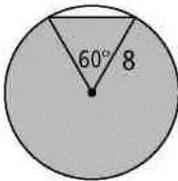
23.  $r = 8$  mm,  $m\widehat{RT} = 90$

24.  $d = 10$  ft,  $m\widehat{TR} = 180$

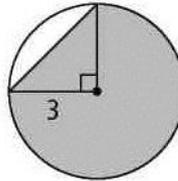
25.  $d = 13$  m,  $m\widehat{TR} = 120$

Find the area of the shaded region. Leave your answer in terms of  $\pi$  and in simplest radical form.

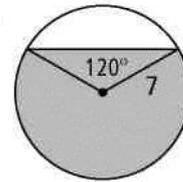
26.



27.

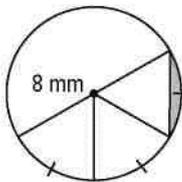


28.

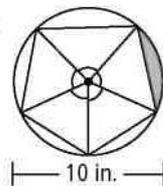


Find the area of each shaded segment. Round your answer to the nearest tenth.

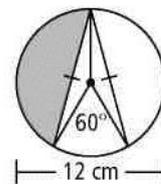
29.



30.



31.



32. **Draw a Diagram** Draw a circle and a sector so that the area of the sector is three-tenths of the area of the circle. Give the radius of the circle, the measure of the arc, and area of the sector.

33. **Reasoning** If  $\widehat{AC} \cong \widehat{DF}$  and Area of sector  $ABC =$  Area of sector  $DEF$ , is  $\odot B \cong \odot E$ ? Explain.

34. In a circle, a  $60^\circ$  sector has area  $25\pi$  ft<sup>2</sup>. What is the circumference of the circle? Leave your answer in terms of  $\pi$  and in simplest radical form.