

# 10-7 Standardized Test Prep

## Areas of Circles and Sectors

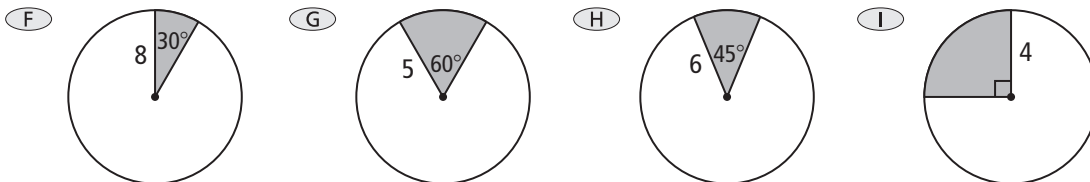
### Multiple Choice

For Exercises 1-4, choose the correct letter.

1. What is the area of a circle with a diameter of 8?

- (A)  $4\pi$       (B)  $8\pi$       (C)  $16\pi$       (D)  $64\pi$

2. Which sector below has the greatest area?

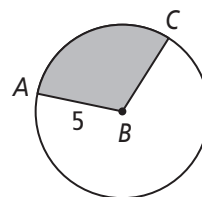


3. If  $\odot B$  has a radius of 4 and  $m\widehat{AC} = 36$ , what is the area of sector  $ABC$ ?

- (A)  $\frac{5}{8}\pi$       (B)  $\frac{4}{5}\pi$       (C)  $\frac{5}{4}\pi$       (D)  $\frac{8}{5}\pi$

4. Which of the following is equal to the area of the sector  $ABC$  in the figure at the right?

- (F)  $\frac{m\widehat{AC}}{360} \cdot 10\pi$       (H)  $\frac{m\widehat{AC}}{360} \cdot 25\pi$   
 (G)  $\frac{360}{m\widehat{AC}} \cdot 5\pi$       (I)  $\frac{360}{m\widehat{AC}} \cdot 25\pi$



### Short Response

5. What is the area of the shaded segment in the figure at the right? Use at least three steps. Show your work. Leave your answer in terms of  $\pi$  and in simplest radical form.

