6-1

Practice

Angles and Radian Measure

Change each degree measure to radian measure in terms of π.

1. $-250°$ **2.** $6°$ **3.** $-145°$

4. $870°$ **5.** $18°$ **6.** $-820°$

Change each radian measure to degree measure. Round to the nearest tenth, if necessary.

7. 4π **8.** $\frac{13\pi}{30}$ **9.** -1

10. $\frac{3\pi}{16}$ **11.** -2.56 **12.** $-\frac{7\pi}{9}$

Evaluate each expression.

13. $\tan \frac{\pi}{4}$ **14.** $\cos \frac{3\pi}{2}$ **15.** $\sin \frac{3\pi}{2}$

16. $\tan \frac{11\pi}{6}$ **17.** $\cos \frac{3\pi}{4}$ **18.** $\sin \frac{5\pi}{3}$

Given the measurement of a central angle, find the length of its intercepted arc in a circle of radius 10 centimeters. Round to the nearest tenth.

19. $\frac{\pi}{6}$ **20.** $\frac{3\pi}{5}$ **21.** $\frac{\pi}{2}$

Find the area of each sector, given its central angle θ and the radius of the circle. Round to the nearest tenth.

22. $\theta = \frac{\pi}{6}, r = 14$ **23.** $\theta = \frac{7\pi}{4}, r = 4$