

**Practice B**

For use with pages 776–783

Draw an angle with the given measure in standard position.

1.  $215^\circ$                       2.  $-135^\circ$                       3.  $\frac{7\pi}{12}$                       4.  $-\frac{5\pi}{6}$

Find one positive angle and one negative angle coterminal with the given angle.

5.  $340^\circ$                       6.  $540^\circ$                       7.  $\frac{20\pi}{3}$                       8.  $\frac{12\pi}{5}$

Rewrite each degree measure in radians and each radian measure in degrees.

9.  $210^\circ$                       10.  $-340^\circ$                       11.  $165^\circ$                       12.  $100^\circ$   
 13.  $\frac{13\pi}{4}$                       14.  $\frac{8\pi}{3}$                       15.  $-\frac{2\pi}{3}$                       16.  $\frac{\pi}{12}$

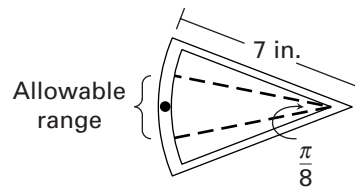
Find the arc length and area of a sector with the given radius  $r$  and central angle  $\theta$ .

17.  $r = 12$  ft,  $\theta = \frac{3\pi}{2}$                       18.  $r = 2$  in.,  $\theta = \frac{3\pi}{4}$                       19.  $r = 20$  m,  $\theta = 180^\circ$

Evaluate the trigonometric function using a calculator if necessary. If possible, give an exact answer.

20.  $\sin \frac{\pi}{3}$                       21.  $\tan \frac{\pi}{8}$                       22.  $\sin \frac{\pi}{2}$                       23.  $\cos \frac{\pi}{7}$   
 24.  $\sec \frac{\pi}{6}$                       25.  $\csc \frac{\pi}{4}$                       26.  $\cos \frac{7\pi}{15}$                       27.  $\cot \frac{3\pi}{8}$

28. **Fire Truck Ladder** For the ladder on a fire truck to operate properly, the base of the ladder must be almost level. The diagram at the right shows part of a leveling device that is used to determine whether the level of the ladder's base is within the allowable range. Find the length of the arc that describes the allowable range.



29. **Snowboarding** During a competition, a snowboarder performs a trick involving three revolutions. Find the measure of the angle generated as the snowboarder performs the trick. Give the answer in both degrees and radians.