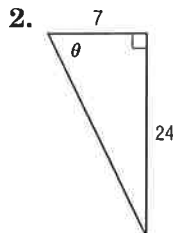
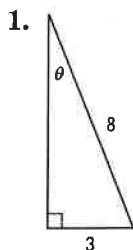
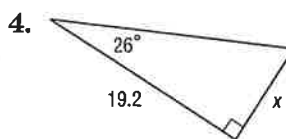
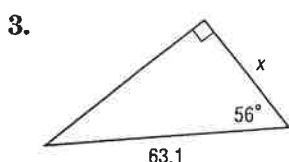
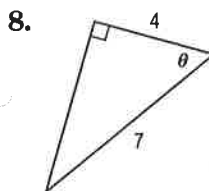
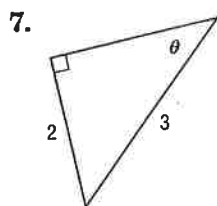


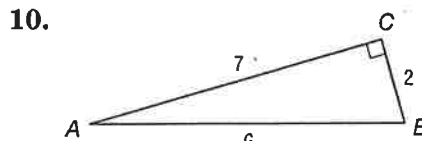
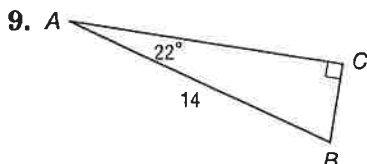
4-1 Practice**Right Triangle Trigonometry**Find the exact values of the six trigonometric functions of θ .Find the value of x . Round to the nearest tenth, if necessary.

5. On a college campus, the library is 80 yards due east of the dormitory and the recreation center is due north of the library. The college is constructing a sidewalk from the dormitory to the recreation center. The sidewalk will be at a 56° angle with the current sidewalk between the dormitory and the library. To the nearest yard, how long will the new sidewalk be?

6. If $\cot A = 8$, find the exact values of the remaining trigonometric functions for the acute angle A .

Find the measure of angle θ . Round to the nearest degree, if necessary.

Solve each triangle. Round side measures to the nearest tenth and angle measures to the nearest degree.



11. **SWIMMING** The swimming pool at Perris Hill Plunge is 50 feet long and 25 feet wide. If the bottom of the pool is slanted so that the water depth is 3 feet at the shallow end and 15 feet at the deep end, what is the angle of elevation at the bottom of the pool?

4-2 Practice***Degrees and Radians***

1

Write each degree measure in radians as a multiple of π and each radian measure in degrees.

5. 25°

6. 130°

7. $\frac{3\pi}{4}$

8. $\frac{5\pi}{3}$

Identify all angles that are coterminal with the given angle. Then find and draw one positive and one negative angle coterminal with the given angle.

9. 43°

10. $-\frac{7\pi}{4}$

Find the length of the intercepted arc with the given central angle measure in a circle of the given radius. Round to the nearest tenth.

11. 30° , $r = 8$ yd

12. $\frac{7\pi}{6}$, $r = 10$ in.

Find the rotation in revolutions per minute given the angular speed and the radius given the linear speed and the rate of rotation.

13. $\omega = \frac{4}{5}\pi$ rad/s

14. $v = 32$ m/s, 100 rev/min

15. On a game show, a contestant spins a wheel. The angular speed of the wheel was $\omega = \frac{\pi}{3}$ radians per second. If the wheel maintained this rate, what would be the rotation in revolutions per minute?

Find the area of each sector.

16. $\theta = \frac{\pi}{6}$, $r = 14$ in.

17. $\theta = \frac{7\pi}{4}$, $r = 4$ m