

# Trigonometry Angles Practice

Name: \_\_\_\_\_

1. Change the degree measures to radians. Give answers as both exact and approximate measures correct to one decimal place.

a)  $150^\circ$

b)  $310^\circ$

2. Change the radian measures to degrees. Round to two decimal places if necessary.

a)  $\frac{4\pi}{5}$

b)  $\frac{5\pi}{6}$

c) 6

d)  $-2.5$

3. Determine the two next positive angles that are coterminal with the given angle.

a)  $450^\circ$

b)  $\frac{\pi}{5}$

4. Find the first *negative* angle that is coterminal with each given angle.

a)  $40^\circ$

b)  $\frac{9\pi}{4}$

5. Write an expression that gives *all* angles coterminal to each given angle.

a)  $75^\circ$

b)  $\frac{\pi}{3}$

6. Draw each angle in standard position. Name the quadrant in which the angle lies.

a)  $\frac{2\pi}{3}$

b)  $\frac{3\pi}{4}$

c)  $\frac{\pi}{6}$

d)  $\pi$

7. A circle with a radius of 16.2 cm is drawn on a large piece of cardboard. A central angle of  $74^\circ$  is drawn. What is the length of the arc subtended by this angle, rounded to the nearest tenth of a cm?

8. The radius of a circle is 7 cm, and the length of an arc on the circle is 10 cm. In radians, what is the central angle that subtends this arc length? Give your answer correct to 2 decimal places.

9. For each picture below, find:

- the measure of the standard-position angle in degrees
- the measure of the standard-position angle in radians
- the coordinates of the point where the terminal arm of the angle intersects the unit circle

