#1

ID: 8e7689e0

The number of radians in a 720-degree angle can be written as a, where a is a constant. What is the value of a ?

#2

ID: 74d8b897

An angle has a measure of $\frac{9\pi}{20}$ radians. What is the measure of the angle in degrees?

#3

ID: a0cacec1

An angle has a measure of $\frac{16\pi}{15}$ radians. What is the measure of the angle, in degrees?

#4

ID: f1c1e971

The measure of angle R is $\frac{2\pi}{3}$ radians. The measure of angle T is $\frac{5\pi}{12}$ radians greater than the measure of angle R. What is the measure of angle T, in degrees?

A) 75

B) 120

C) 195

D) 390

#5

ID: 856372ca

In the xy-plane, a circle with radius 5 has center $(-8, 6)$. Which of the following is an equation of the circle?

A) $(x-8)^2+(y+6)^2=25$

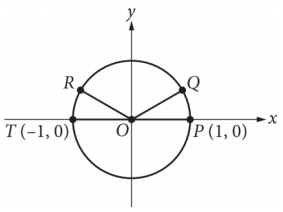
B) $(x+8)^2+(y-6)^2=25$

C) $(x-8)^2+(y+6)^2=5$

D) $(x+8)^2+(y-6)^2=5$

#6

ID: 95ba2d09



In the xy-plane above, points P, Q, R, and T lie on the circle with center O. The degree measures of angles POQ and ROT are each 30°. What is the radian measure of angle QOR ?

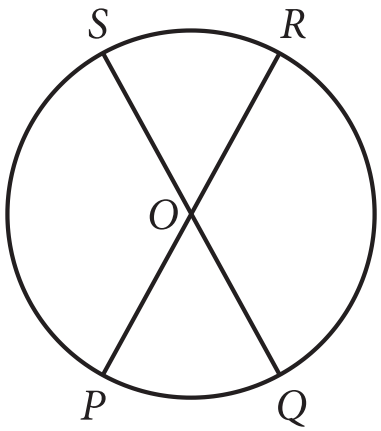
A)

B) $\frac{3}{4}$

C) $\frac{2}{3}$

D) $\frac{1}{3}$

#7 ID: 0815a5af



Note: Figure not drawn to scale.

The circle shown has center O, circumference 144π, and diameters $\bar{PR}$ and $\bar{QS}$. The length of arc PS is twice the length of arc PQ. What is the length of arc QR?

A) 24π

B) 48π

C) 72π

D) 96π

#8 ID: 82c8325f

A circle in the *xy*-plane has its center at $(-4, 5)$ and the point $(-8, 8)$ lies on the circle. Which equation represents this circle?

A) $(x - 4)^2 + (y + 5)^2 = 5$

B) $(x + 4)^2 + (y - 5)^2 = 5$

C) $(x - 4)^2 + (y + 5)^2 = 25$

D) $(x + 4)^2 + (y - 5)^2 = 25$