SAT Math

Circles 2

Question #	ID

2.1 8e7689e0

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

2.2 74d8b897

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

2.3 856372ca

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

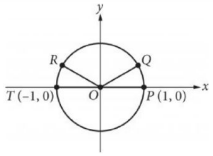
A. $(x-8)^2+(y+6)^2=25$

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

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

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

2.4 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. $\frac{5}{6}\pi$

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

C. $\frac{2}{3}\pi$

D. $\frac{1}{3}\pi$

SAT Math

Circles 2

Question #	ID

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

2.6 a0cacec1

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

2.7 b96ff36e

In the *xy*-plane, the graph of the equation $(x-3)^2+(y-5)^2=9$ is a circle. The point $(6, c)$, where c is a constant, lies on this circle. What is the value of c?

2.8 2d521ca9

The measure of angle Z is 60°. What is the measure, in radians, of angle Z?

A. $\frac{1}{6}\pi$

B. $\frac{1}{3}\pi$

C. $\frac{2}{3}\pi$

D. 1π

2.9 ee540927

$$x^2+58x+y^2=0$$

In the *xy*-plane, the graph of the given equation is a circle. What are the coordinates (x, y) of the center of the circle?

A. $(0, 29)$

B. $(0, -29)$

C. $(29, 0)$

D. $(-29, 0)$

SAT Math

Circles 2

Question # **ID**

2.10 fc8aa563

What is the center of the circle in the *xy*-plane defined by the equation $(x-1)^2+(y+7)^2=1$?

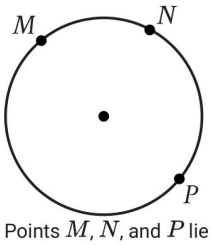
A. $(-1,-7)$

B. $(-1,7)$

C. $(1,-7)$

D. $(1,7)$

2.11 800e71b8



Points M, N, and P lie on the circle shown. On this circle, minor arc MN has a length of 39 centimeters and major arc MPN has a length of 195 centimeters. What is the circumference, in centimeters, of the circle shown?

A. 39

B. 156

C. 195

D. 234