MATHS

BOOKS - KAPLAN INC MATHS (ENGLISH)

CIRCLES

Multiple Choice Question

1. If the area of a circle is 64π, which is the circumference of the circle?

A. 8π

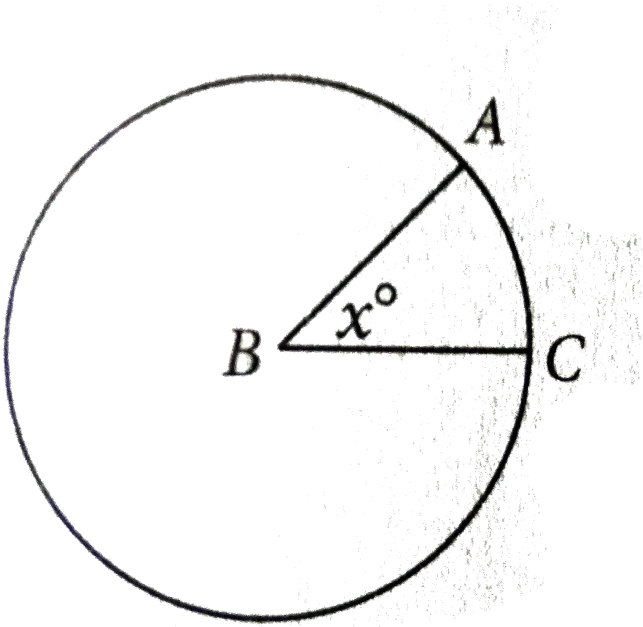
B. 16π

C. 32π

D. 64π

Answer: B

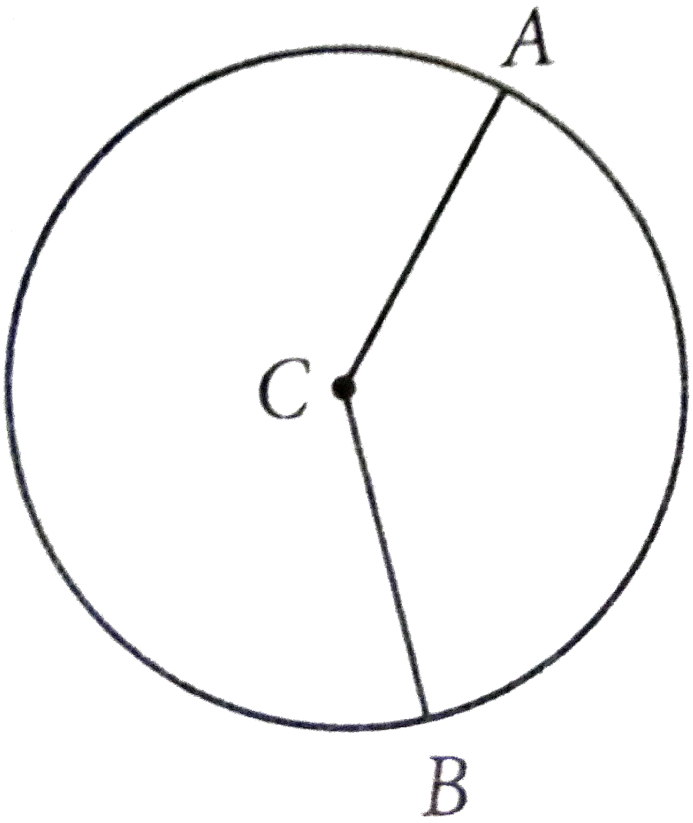
Watch Video Solution



2.

In the figure above, the ratio of the circumference of circle B to the length of minor are AC is 8:1. What is the value of x?

Watch Video Solution



3.

Points A and B lies on circle as shown. The measure of angle ACB is 120°. If the area of circle is $81i$ square units, what is the length of minor are AB?

A. 6π

B. 9π

C. 18π

D. 27π

Answer: A

Watch Video Solution

4. Circle C (not shown) is drawn on a coordinate plane, centered at the origins. If the point (a, b) lies on the circumference of

the circle, what is the radius of the cirle in terms of a and b?

A. $a - b$

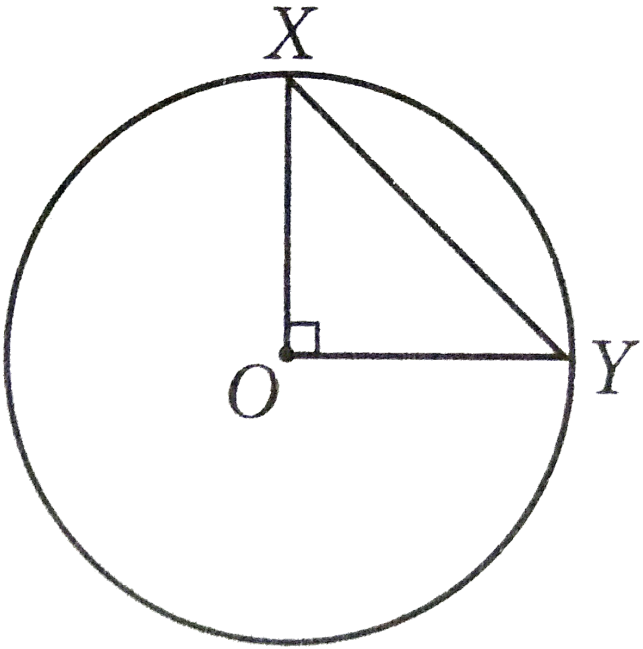
B. $a + b$

C. $\sqrt{a^2 + b^2}$

D. $a^2 + b^2$

Answer: C

Watch Video Solution



5.

In the figure above, O is the center of the circle. If the area of $\triangle XOY$ is 25, what is the area of circle?

A. 25π

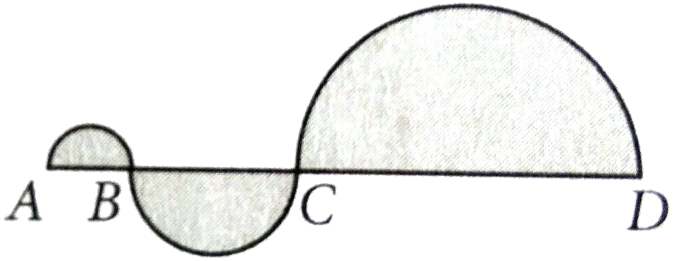
B. $25\sqrt{2}\pi$

C. 50π

D. 625π

Answer: C

Watch Video Solution



6.

Each of the three shaded regions above is a semicircle. If $Ab = 4$, $BC = 2AB$, and $CD = 2BC$, what is the area of the entire shaded region?

A. 28π

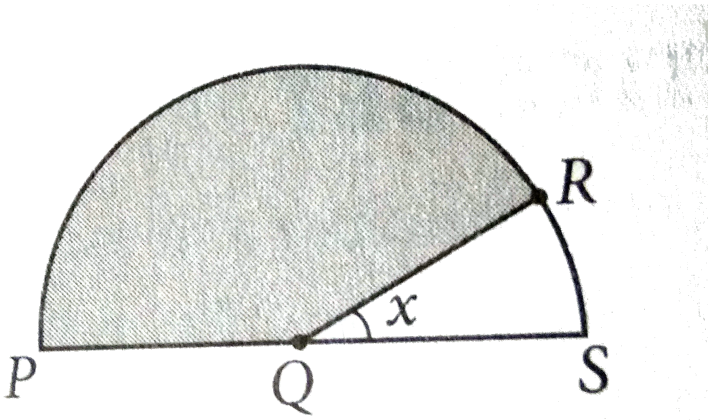
B. 42π

C. 84π

D. 96π

Answer: B

Watch Video Solution



7.

The semicircle shown has its center at point Q.

If the measure of the central angle of the

shaded sector is 160 degree, what is the value of x in radius?

A. $\frac{\pi}{20}$

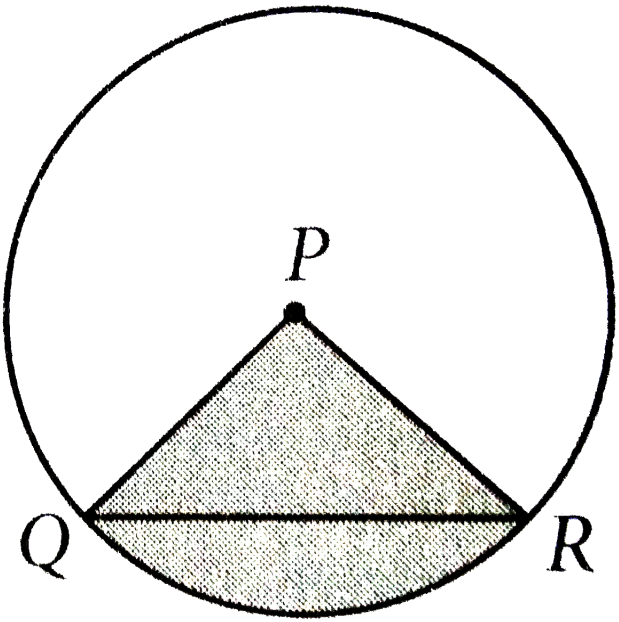
B. $\frac{\pi}{12}$

C. $\frac{\pi}{9}$

D. $\frac{\pi}{6}$

Answer: C

Watch Video Solution



8.

The area of the shaded sector in circle P above is 18π square units. If the measure of angle PQR is 45^2, what is the length of chord QR?

A. 6

B. 9

C. $9\sqrt{2}$

D. 12

Answer: D

Watch Video Solution

9. The center of circle O (not shown) falls on the point where the line $y = \frac{4}{3}x + 4$ intersects the x-axis on the coordinate plane. The point (3, 8) lies on the circumference of

the circle. Which of the following could be the equation for circle O?

A. $x^2 + y^2 = 25$

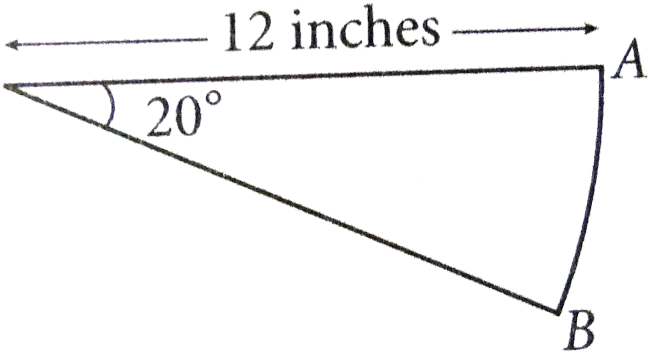
B. $(x + 3)^2 + y^2 = 25$

C. $(x + 3)^2 + y^2 = 100$

D. $(x + 3)^2 + (y - 8)^2 = 100$

Answer: C

Watch Video Solution



10.

The figure above shows the path traced by the hand of a scale as it moves form A to B. What is the area, in square inches, of the region passed over by the scale's hand?

A. 2π

B. 8π

C. 12π

D. 16π

Answer: B

Watch Video Solution

11. If are AB has a length of 12π and represents three-fourths of the circumference of circle O (not shown), what is the shorter distance between the endpoints of the arc?

A. 4

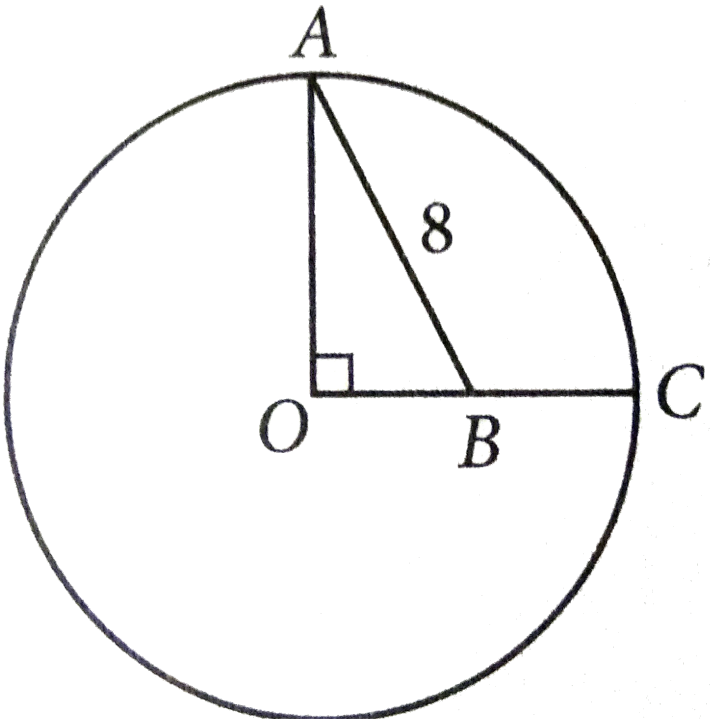
B. $4\sqrt{2}$

C. 8

D. $8\sqrt{2}$

Answer: D

Watch Video Solution



12.

In the figure above, circle O has a circumference of 12π. If AB=8, what is BC?

A. $2\sqrt{7}$

B. $2\left(3-\sqrt{7}\right)$

C. $2\left(6-\sqrt{7}\right)$

D. $4\sqrt{5}$

Answer: B

 Watch Video Solution