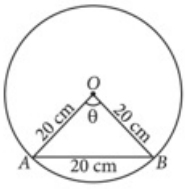
Trigonometric Functions - Class XI

Related Questions with Solutions

Questions

Quetion: 01

In a circle of diameter 40 cm, a chord is 20 cm. Find the length of the minor arc of the chord.



A. $20\pi/3$ cm

B. $\pi/3$ cm

C. $19\pi/3$ cm

D. $2\pi/3$ cm

Solutions

Solution: 01

Given, diameter = 40 cm

$\therefore$ Radius $(r) = \dfrac{40}{2} = 20$ cm

and length of chord, AB = 20 cm

$Thus, \Delta OAB \ \ is\ an\ equilateral\ triangle.$

$\therefore \theta = 60^\circ = 60 \times \dfrac{\pi}{180} = \dfrac{\pi}{3}\text{rad}$

$We\ know\ that, \theta = \dfrac{\text{Arc}\,AB}{radius}$

$\Rightarrow \text{Arc}\,AB = \theta \times r = \dfrac{\pi}{3} \times 20 = \dfrac{20\pi}{3}$ cm

---

Correct Options

Answer:01

Correct Options: A