Trigonometric Functions - Class XI

Related Questions with Solutions

Questions

Quetion: 01

Express $50°37'30''$ in radian.

A. $7\pi/32$

B. $5\pi/32$

C. $9\pi/32$

D. $\pi/32$

Solutions

Solution: 01

Here, $30'' = \left(\dfrac{30}{60}\right)' = \left(\dfrac{1}{2}\right)'$

Now, $37'30'' = 37' + \left(\dfrac{1}{2}\right)' = \left(\dfrac{75}{2}\right)' = \left(\dfrac{75}{2 \times 60}\right)° = \left(\dfrac{5}{8}\right)°$

$\therefore \quad 50°37'30'' = 50° + \left(\dfrac{5}{8}\right)° = \left(\dfrac{405}{8}\right)°$

Hence, $\left(\dfrac{405}{8}\right)° = \dfrac{405}{8} \times \dfrac{\pi}{180} \text{ rad} = \dfrac{9\pi}{32}\text{rad}$

Correct Options

Answer:01

Correct Options: C