

Q1. The complex numbers $\sin x + i \cos 2x$ & $\cos x - i \sin 2x$ are conjugate to each other for

(a) $x = n\pi \quad n \in I$

(b) $x = \left(n + \frac{1}{2}\right)\pi, x \in I$

(c) $x = 0$

(d) no value of x

Q2. The real part of $z = \frac{1}{1 - \cos \theta + i \sin \theta}$

(a) $\frac{1}{1 - \cos \theta}$

(b) $\frac{1}{2}$

(c) $\frac{1}{2} \tan \theta$

(d) 2