MATHS

BOOKS - CENGAGE

TRIGNOMETRIC RATIOS IDENTITIES AND TRIGNOMETRIC EQUATIONS

Question Bank

1. The number of solution (s) of the equation

$$\sqrt{2} + \cos 2x = (\sin x + \cos x) \in \left[-\frac{\pi}{2}, \pi \right]$$

2. Find the number of pairs of integer (x, y) that satisfy the following two equations:

$\{\cos(xy) = x \tan(xy) = y$ 1 (b) 2 (c) 4 (d) 6

3. If $\dfrac{\sin \alpha}{\sin \beta} = \dfrac{\cos \gamma}{\cos \delta}$, then

$$\dfrac{\sin\left(\frac{\alpha - \beta}{2}\right) \cdot \cos\left(\frac{\alpha + \beta}{2}\right) \cdot \cos \delta}{\sin\left(\frac{\delta - \gamma}{2}\right) \cdot \sin\left(\frac{\delta + \gamma}{2}\right) \cdot \sin \beta}$$

4. The number of solution (s) of

$$\cos \sqrt{3}x + \cos \sqrt{5}x = 2 \text{ is}$$