

MISSION SELECTION

एसएससी CGL/CHSL/CPO SERIES



MATHS

Trigonometry

(त्रिकोणमिति)

Part-3

7:30 PM



Trigonometry

त्रिकोणमिती



MAHENDRA INTERACTIVE CLASS(MIC) BATCH STARTS ON EVERY WEDNESDAY

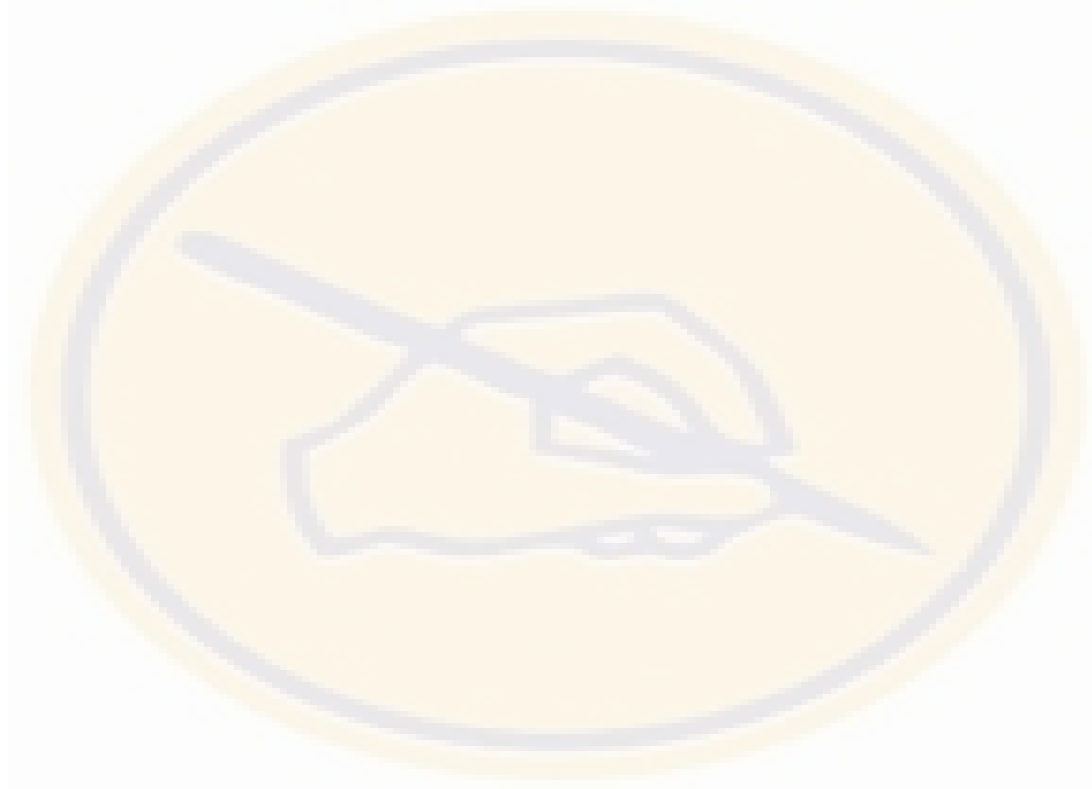
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Ex: If $0^\circ < A < 90^\circ$ and $\cos A = \frac{4}{5}$, then find the value of $\cot A + \operatorname{cosec} A$.



Ex: If the angle θ is in the first quadrant and $\tan \theta = 3$, then what is the value of $(\sin \theta + \cos \theta)$.



Ex: If $\sec\theta = \frac{13}{5}$, then find the value of $\frac{2 \sin \theta - 3 \cos \theta}{4 \sin \theta - 9 \cos \theta}$



Ex: If θ is acute angle and $\cos\theta = \frac{15}{17}$, then find the value of $\cot(90^\circ - \theta)$.



Ex: Find the value of $(1-\sin^2\theta)(1+\tan^2\theta)$.



Ex : If $\sin\theta + \cos\theta = 1$, then find the value of $\sin\theta\cos\theta$.

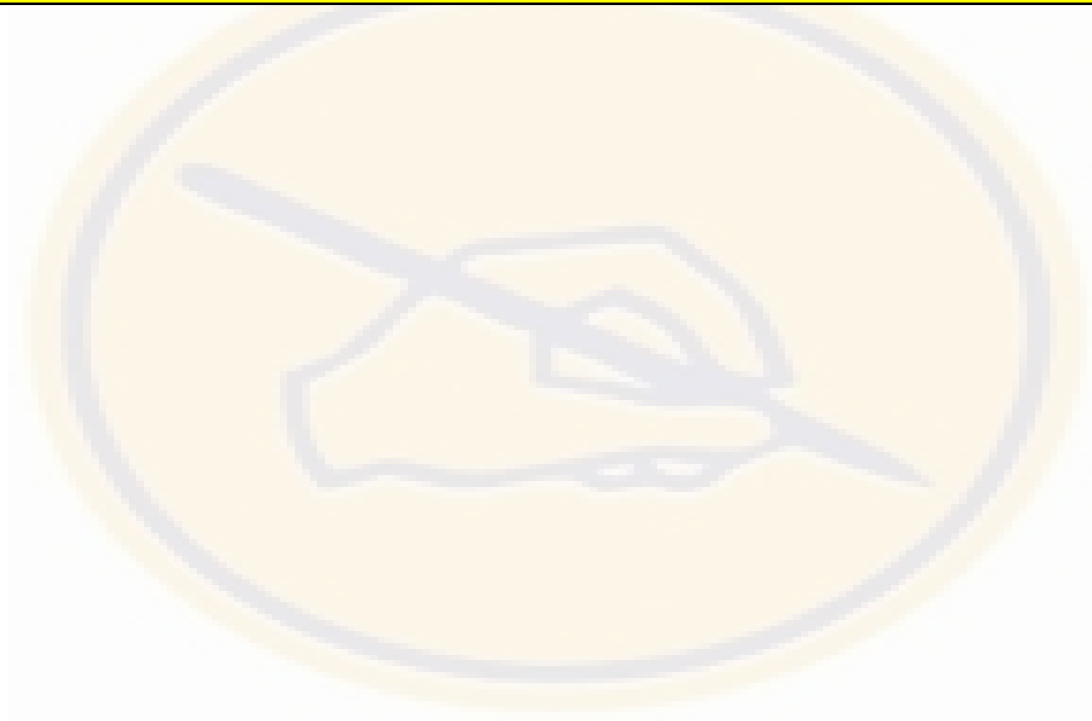


Ex: If $\sin\theta \cdot \cos\theta = \frac{\sqrt{3}}{4}$, then the value of $\sin^4\theta + \cos^4\theta$ is:

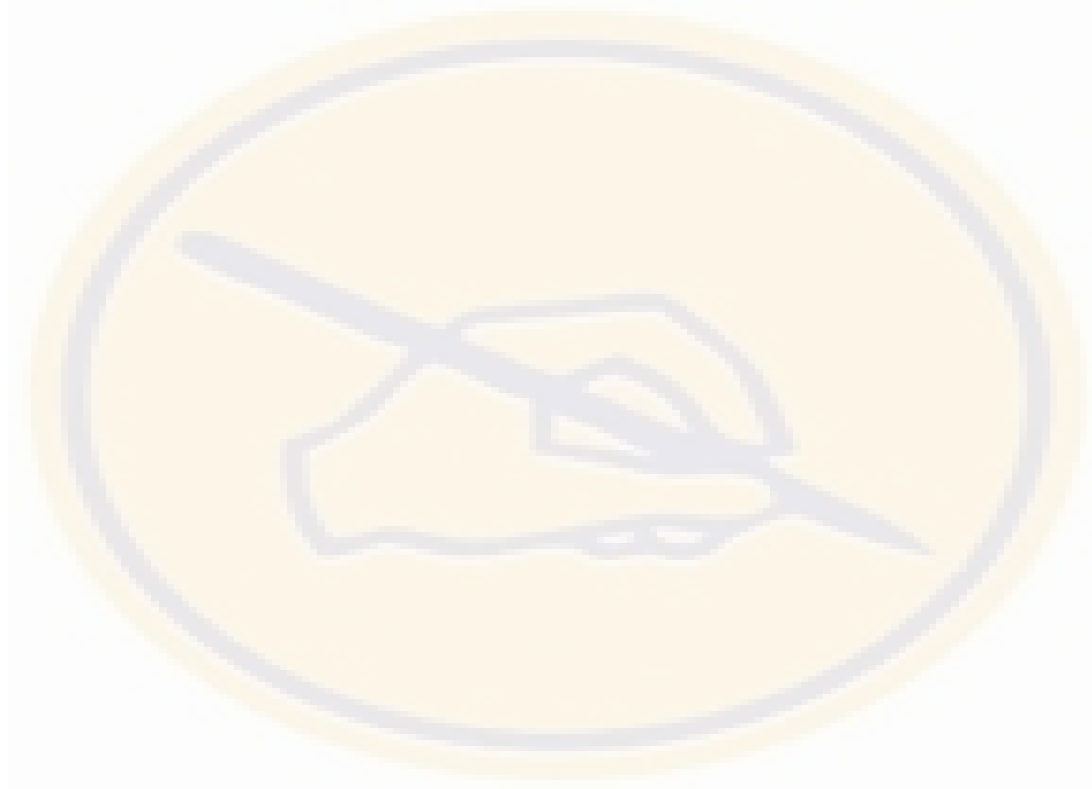
Sol:



Ex: If $\tan\beta = \frac{4}{3}$, then what is the value of $\frac{1 - \sin\beta}{1 + \sin\beta}$



Ex: If $\frac{\sin\alpha}{x} = \frac{\cos\alpha}{y}$, then what is the value of $\sin\alpha - \cos\alpha$



Ex: Find the value of $\sin 75^\circ$.



Ex : If $\sec^2 x + \tan^2 x = 7$ then find the value of x ?



Ex : If $\sin(\theta + 34^\circ) = \cos \theta$ and $(\theta + 34^\circ)$ is acute , then $\theta = ?$



Ex: Find the value of $\sin 53^\circ \cos 37^\circ + \cos 53^\circ \sin 37^\circ$



Ex: What is the value of $\sin^2 27^\circ + \sin^2 63^\circ + \frac{1}{\cos^2 27^\circ + \cos^2 63^\circ}$



Ex: Find the value of $\cos (40^\circ - \theta) - \sin (50^\circ + \theta) + \frac{\cos^2 40^\circ + \cos^2 50^\circ}{\sin^2 40^\circ + \sin^2 50^\circ}$.

Sol:



Ex: Find the value of $(1 + \sec 20^\circ + \cot 70^\circ)(1 - \operatorname{cosec} 20^\circ + \tan 70^\circ)$.





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