

15. If $[\sin^{-1}(\cos^{-1}(\sin^{-1}(\tan^{-1} x)))] = 1$, where $[\cdot]$ denotes greatest integer function, then complete set of values of x is :

(a) $[\tan(\sin(\cos 1)), \tan(\cos(\sin 1))]$

(c) $[\tan(\cos(\sin 1)), \tan(\sin(\cos(\sin 1)))]$

(b) $[\tan(\sin(\cos 1)), \tan(\sin(\cos(\sin 1)))]$

(d) $[\tan(\sin(\cos 1)), 1]$

$$1 \leq \sin^{-1}(\cos^{-1}(\sin^{-1}(\tan^{-1} x))) \leq \frac{\pi}{2}$$

$$\sin 1 \leq \cos^{-1}(\sin^{-1}(\tan^{-1} x)) \leq 1$$

$$\cos(\sin 1) \geq \sin^{-1}(\tan^{-1} x) \geq \cos 1$$

$$\sin(\cos(\sin 1)) \geq \tan^{-1} x \geq \sin(\cos 1)$$

$$\tan(\sin(\cos(\sin 1))) \geq x \geq \tan(\sin(\cos 1))$$