

Answer on Question #57362 - Math – Trigonometry

Question

Solve $\sqrt{3} \tan \theta = 1$.

Solution

$$\sqrt{3} \tan \theta = 1,$$

$$\tan \theta = \frac{1}{\sqrt{3}},$$

$$\theta = \arctan \frac{1}{\sqrt{3}} + \pi n = \frac{\pi}{6} + n\pi = \left(n + \frac{1}{6}\right)\pi, \quad n \in \mathbb{Z} \text{ (that is, } n \text{ is integer).}$$

Answer: $\theta = \frac{\pi}{6} + n\pi, \quad n \in \mathbb{Z}.$