

$$\sin(x) \cos(x) = \frac{\sqrt{3}}{4}$$

$$\Leftrightarrow 2 \sin(x) \cos(x) = \frac{\sqrt{3}}{2}$$

$$\Leftrightarrow \sin(2x) = \sin\left(\frac{\pi}{3}\right)$$

$$\Leftrightarrow 2x = \frac{\pi}{3} + 2k\pi$$

$$k \in \mathbb{Z}$$

ou

$$2x = \pi - \frac{\pi}{3} + 2k\pi = \frac{2\pi}{3} + 2k\pi$$

$$\Leftrightarrow x = \frac{\pi}{6} + k\pi \quad (k \in \mathbb{Z})$$

ou

$$x = \frac{\pi}{3} + k\pi \quad (k \in \mathbb{Z}).$$

