

$$\cos 3x + \cos x = 2 \cos 2x ;$$

$$2 \cos 2x \cos x = 2 \cos 2x$$

$$2 \cos x (\cos 2x - 1) = 0$$

$$\begin{cases} \cos x = 0 \\ \cos 2x = 1 \end{cases} \quad \begin{cases} x_1 = \pi/2 + \pi u, u \in \mathbb{Z} \\ x_2 = \pi u, u \in \mathbb{Z} \end{cases}$$