

3.94  
105

$$\sin 3x + \sin x - \sin 2x = \cos x (2\cos x - 1)$$

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

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

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

$$2\sin x \cos x - \cos x = 0$$

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

↓

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

↓

$$x = \frac{\pi}{6} + 2\pi k$$

$$x = \frac{5\pi}{6} + 2\pi k$$

$$\cos x = \frac{1}{2}$$

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