7. $\sin 5x + \sin 3x = 0$

(4)

α β

$2 \sin \frac{5x+3x}{2} \cos \frac{5x-3x}{2} = 0$

$2 \sin 4x \cos x = 0$

$\sin 4x = 0$ $\quad \cos x = 0$

$x = \frac{\pi}{2}, \frac{3\pi}{2}$

$\sin 4x = 0$

$\sin \underline{0} = 0$ $\quad \sin \underline{\pi} = 0$

$4x = 0$ $\quad 4x = \pi$

$x = 0$ $\quad x = \frac{\pi}{4}$

$\sin \underline{2\pi} = 0$ $\quad \sin \underline{3\pi} = 0$

$4x = 2\pi$ $\quad x = \frac{3\pi}{4}$

$x = \frac{2\pi}{4}$ or $\frac{\pi}{2}$

$\sin \underline{4\pi} = 0$

$x = \frac{4\pi}{4} = \pi$ $\quad x = \frac{5\pi}{4}$

$x = \frac{6\pi}{4} = \frac{3\pi}{2}$ $\quad x = \frac{7\pi}{4}$