

EXTRA PRACTICE

Solve in the interval $[0, 2\pi)$

1) $\cos 2x + 5 \cos x + 3 = 0$

2) $\sin x \cos x = \frac{\sqrt{2}}{4}$

3) $\tan x + \sec x = 1$

4) $\sin\left(x + \frac{\pi}{4}\right) + \sin\left(x - \frac{\pi}{4}\right) = 1$

5) $\sqrt{48} \tan \frac{x}{2} = \sqrt{12} \tan \frac{x}{2} + 6$

Answers:

1) $x = \frac{2\pi}{3}, \frac{4\pi}{3}$ 2) $x = \frac{\pi}{8}, \frac{3\pi}{8}, \frac{9\pi}{8}, \frac{11\pi}{8}$ 3) $x = 0$ 4) $x = \frac{\pi}{4}, \frac{3\pi}{4}$ 5) $x = \frac{2\pi}{3}$