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26/8/25

$$h'(x) = \cos x - \sqrt{3} \sin x$$

$$h'(x) = 0 \Rightarrow \cos x - \sqrt{3} \sin x = 0$$

$$2 \left(\frac{1}{2} \cos x - \frac{\sqrt{3}}{2} \sin x \right) = 0$$

$$2 \sin \left(\frac{\pi}{6} - x \right) = 0$$

$$\sin \left(\frac{\pi}{6} - x \right) = 0$$

$$\frac{\pi}{6} - x = 0, \pi$$

$$\Rightarrow x = \frac{\pi}{6}, -\frac{5\pi}{6}$$

$$= \frac{\pi}{6}, \frac{7\pi}{6} \quad \text{for } 0 \leq x \leq 2\pi$$

$$\begin{aligned} \text{Check: } h'(x) &= \cos \frac{\pi}{6} - \sqrt{3} \sin \frac{\pi}{6} \\ &= \frac{\sqrt{3}}{2} - \sqrt{3} \left(\frac{1}{2} \right) \end{aligned}$$

$$= 0$$

$$\begin{aligned} h'(x) &= \cos \frac{7\pi}{6} - \sqrt{3} \sin \frac{7\pi}{6} \\ &= -\frac{\sqrt{3}}{2} - \sqrt{3} \left(-\frac{1}{2} \right) \\ &= 0 \end{aligned}$$