

$$\left\{ \begin{array}{l} \sec(2\pi+x) = \frac{1}{\cos(2\pi+x)} = \frac{1}{\cos x} \\ \sin(\pi+x) = -\sin x \\ \operatorname{ctg}\left(\frac{\pi}{2}-x\right) = \operatorname{tg} x \end{array} \right.$$

∴

$$\begin{aligned} & \frac{\cos\left(\frac{\pi}{2}+x\right) \sec(-x) \operatorname{tg}(\pi-x)}{\sec(2\pi+x) \sin(\pi+x) \operatorname{ctg}\left(\frac{\pi}{2}-x\right)} = \\ & = \frac{-\cancel{\sin x} \cdot \frac{1}{\cancel{\cos x}} \cdot (\ominus) \cancel{\operatorname{tg} x}}{\frac{1}{\cancel{\cos x}} \cdot (-\cancel{\sin x}) \cdot \cancel{\operatorname{tg} x}} = -1 \end{aligned}$$

$$25) \frac{\sin(\pi-x) \cos(\pi+x) \operatorname{tg}(2\pi-x)}{\sec\left(\frac{\pi}{2}+x\right) \csc\left(\frac{3\pi}{2}-x\right) \operatorname{ctg}\left(\frac{3\pi}{2}+x\right)} = \sin^4 x - \sin^2 x$$

$$\left\{ \begin{array}{l} \sin(\pi-x) = \sin x \\ \cos(\pi+x) = -\cos x \\ \operatorname{tg}(2\pi-x) = -\operatorname{tg} x \\ \sec\left(\frac{\pi}{2}+x\right) = \frac{1}{\cos\left(\frac{\pi}{2}+x\right)} = -\frac{1}{\sin x} \\ \csc\left(\frac{3\pi}{2}-x\right) = \frac{1}{\sin\left(\frac{3\pi}{2}-x\right)} = -\frac{1}{\cos x} \end{array} \right.$$

Hilroy

