

$$43) \cos\left(\frac{\pi}{12} - x\right) \sec \frac{\pi}{12} - \sin\left(\frac{\pi}{12} - x\right) \csc \frac{\pi}{12} = 4 \sin x$$

$$\rightarrow \cos\left(\frac{\pi}{12} - x\right) \sec \frac{\pi}{12} - \sin\left(\frac{\pi}{12} - x\right) \csc \frac{\pi}{12} =$$

$$= \frac{\cos\left(\frac{\pi}{12} - x\right)}{\cos \frac{\pi}{12}} - \frac{\sin\left(\frac{\pi}{12} - x\right)}{\sin \frac{\pi}{12}}$$

$$= \frac{\sin \frac{\pi}{12} \cos\left(\frac{\pi}{12} - x\right) - \sin\left(\frac{\pi}{12} - x\right) \cos \frac{\pi}{12}}{\cos \frac{\pi}{12} \cdot \sin \frac{\pi}{12}}$$

$$= \frac{\sin\left(\frac{\pi}{12} - \left(\frac{\pi}{12} - x\right)\right)}{\cos \frac{\pi}{12} \cdot \sin \frac{\pi}{12}} = \frac{\sin x}{\cos \frac{\pi}{12} \cdot \sin \frac{\pi}{12}}$$

$$= \frac{\sin x}{\frac{1}{2} \cdot 2 \cos \frac{\pi}{12} \sin \frac{\pi}{12}}$$

$$= \frac{\sin x}{\frac{1}{2} \sin \frac{\pi}{6}} = \frac{\sin x}{\frac{1}{2} \cdot \frac{1}{2}}$$

$$= \underline{\underline{4 \sin x}}$$