

$$\begin{aligned} \text{132) } y &= \frac{1 - \tan^2 x}{1 + \tan^2 x} = (1 - \tan^2 x) \cdot \frac{1}{1 + \tan^2 x} = \left(1 - \frac{\sin^2 x}{\cos^2 x}\right) \cdot \frac{1}{1 + \frac{\sin^2 x}{\cos^2 x}} = \frac{\cos^2 x - \sin^2 x}{\cos^2 x} \cdot \frac{\cos^2 x}{\cos^2 x + 1} \\ &= \cos^2 x - \sin^2 x = \cos 2x \end{aligned}$$

$$y' = -2 \sin 2x$$

$$0 = -2 \sin 2x \rightarrow 2x = \pi k \rightarrow x = \frac{\pi k}{2} \xrightarrow{\text{Werte}} 0, \frac{\pi}{2}, \pi, \frac{3\pi}{2}, 2\pi$$

in $[\pi, 2\pi]$ auf $(\pi, 2\pi)$ gilt $\frac{\pi}{2} < \frac{3\pi}{2}$ also π und 2π