

$$\cos^2 x + \cos^2 x \cdot \tan^2 x =$$

Es gilt: $\tan x = \frac{\sin x}{\cos x}$

$$\cos^2 x + \cos^2 x \cdot \tan^2 x = \cos^2 x + \cos^2 x \cdot \frac{\sin^2 x}{\cos^2 x} = \cos^2 x + \sin^2 x = \mathbf{1}$$