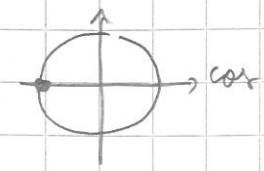
TA1: $\cos^2 x - \sin^2 x = -1$

$\Leftrightarrow \cos 2x = -1$

$\Leftrightarrow 2x = \pi + n2\pi \quad |:2$

$\Leftrightarrow x = \frac{\pi}{2} + n\pi, \; n \in \mathbb{Z}$



b) $4 \sin x \cos x - 1 = 0$

$\Leftrightarrow 2 \cdot \underbrace{2 \sin x \cos x}_{\sin 2x} - 1 = 0$

$\Leftrightarrow 2 \sin 2x - 1 = 0$

$\Leftrightarrow 2 \sin 2x = 1 \quad |:2$

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

$\Leftrightarrow 2x = \frac{\pi}{6} + n2\pi$ tai $2x = \frac{5\pi}{6} + n2\pi \quad |:2$

$\Leftrightarrow x = \frac{\pi}{12} + n\pi$ tai $x = \frac{5\pi}{12} + n\pi, \; n \in \mathbb{Z}$