

3.76

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$$(1 - \tan x)(1 + \sin 2x) = 1 + \tan x$$

$$x = \frac{\pi}{2} + \pi k \quad \underline{\underline{\text{D'A}}}$$

$$(1 - \tan x)(\sin^2 x + \cos^2 x + 2\sin x \cos x) = 1 + \frac{\sin x}{\cos x}$$

$$(1 - \tan x)(\sin x + \cos x)^2 = \frac{\cos x + \sin x}{\cos x}$$

$$\frac{\cos x - \sin x}{\cos x} (\sin x + \cos x)^2 - \frac{\cos x + \sin x}{\cos x} = 0 \quad / \cdot \cos x$$

$$(\cos x - \sin x)(\sin x + \cos x)^2 - (\cos x + \sin x) = 0$$

$$(\sin x + \cos x) [(\cos^2 x - \sin^2 x) - 1] = 0$$

$$(\sin x + \cos x)(\cos 2x - 1) = 0$$

↓

$$\sin x = -\cos x \quad /: \cos x \neq 0$$

$$\tan x = -1$$

$$\boxed{x = -\frac{\pi}{4} + \pi k}$$

$$2x = 2\pi k$$

$$\boxed{x = \pi k}$$