**8** **(a)** Show that $\dfrac{\sin x}{\tan x - 1} - \dfrac{\cos x}{\tan x + 1} = \dfrac{\cos x}{\sin^2 x - \cos^2 x}$. [5]

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**(b)** Hence solve the equation $\frac{\sin x}{\tan x - 1} - \frac{\cos x}{\tan x + 1} = 1$ for $0° < x < 360°$. [5]