4.14
75

$$\int_{-\frac{\pi}{4}}^{0} \frac{2dx}{1+\cos 2x} = \int_{-\frac{\pi}{4}}^{0} \frac{2dx}{2\cos^2 x} = \int_{-\frac{\pi}{4}}^{0} \frac{dx}{\cos^2 x} = \tan x \Big|_{-\frac{\pi}{4}}^{0} =$$

$0 - (-1) = 1$