

$$\begin{aligned} 72. \quad \lim_{x \rightarrow \pi/4} \frac{1 - \tan x}{\sin x - \cos x} &= \lim_{x \rightarrow \pi/4} \frac{\cos x - \sin x}{\sin x \cos x - \cos^2 x} \\ &= \lim_{x \rightarrow \pi/4} \frac{-(\sin x - \cos x)}{\cos x(\sin x - \cos x)} \\ &= \lim_{x \rightarrow \pi/4} \frac{-1}{\cos x} \\ &= \lim_{x \rightarrow \pi/4} (-\sec x) \\ &= -\sqrt{2} \end{aligned}$$