

$$\begin{aligned}
 & \frac{19}{(114)} \quad \lim_{x \rightarrow \frac{\pi}{4}} \frac{1 - \tan^2 x}{\sin 4x} = \lim_{x \rightarrow \frac{\pi}{4}} \frac{1 - \frac{\sin^2 x}{\cos^2 x}}{2 \sin 2x \cos 2x} = \lim_{x \rightarrow \frac{\pi}{4}} \frac{\cos^2 x - \sin^2 x}{2 \sin 2x \cos 2x \cos^2 x} = \lim_{x \rightarrow \frac{\pi}{4}} \frac{\cos 2x}{2 \sin 2x \cos 2x \cos^2 x} = \lim_{x \rightarrow \frac{\pi}{4}} \frac{1}{2 \sin 2x \cos^2 x} = \\
 & = \frac{1}{2 \cdot 1 \cdot \frac{1}{2}} = \frac{1}{1} = 1
 \end{aligned}$$