$$\lim_{x \to 0} \frac{\ln(1+x) - \operatorname{sen} x}{x \cdot \operatorname{sen} x} = \frac{0-0}{0} = \boxed{\frac{0}{0}}\ \text{Ind}$$

$\Big\|$ ← R. L'HÔPITAL

$$\lim_{x \to 0} \frac{\frac{1}{1+x} - \cos x}{1 \cdot \operatorname{sen} x + x \cdot \cos x} = \frac{1-1}{0} = \boxed{\frac{0}{0}}\ \underline{\underline{\text{IND}}}$$

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$$\lim_{x \to 0} \frac{\frac{-1}{(1+x)^2} - (-\operatorname{sen} x)}{\cos x + 1 \cdot \cos x + x(-\operatorname{sen} x)} = \lim_{x \to 0} \frac{\frac{-1}{(1+x)^2} + \operatorname{sen} x}{\cos x + \cos x - x \operatorname{sen} x}$$

$$= \frac{-1 + \underbrace{\operatorname{sen} 0}_{=0}}{1+1-0} = \frac{-1}{2}$$