

$$\lim_{x \rightarrow 0} \cos x^{(1^\infty)} = 1$$

INFATTI:

$$\cos x^{(1/\sin x)} = e^{\log \cos x^{(1/\sin x)}} = e^{\frac{\log \cos x}{\sin x}}$$

$$\lim_{x \rightarrow 0} \cos x^{(1/\sin x)} = \lim_{x \rightarrow 0} e^{\frac{\log \cos x}{\sin x}} = e^0 = 1$$

INFATTI:

$$\lim_{x \rightarrow 0} \frac{\log \cos x}{\sin x} \stackrel{(H)}{=} \lim_{x \rightarrow 0} \frac{-\tan x}{\cos x} = 0$$