ESERCIZI SUI LIMITI NOTEVOLI

- $\lim_{x \to +\infty} 2^x - x^2$ R: $+\infty$

- $\lim_{x \to +\infty} \log x - \sqrt{x}$ R: $-\infty$

- $\lim_{x \to +\infty} \dfrac{\log(x^2+1)}{2^x} =$ R: 0

- $\lim_{x \to 0^+} x^{\log x}$ R $+\infty$

- $\lim_{x \to 0} \dfrac{\log(1+x) + \log(1-x)}{x^2}$ R: -1

$\lim_{x \to 0^+} \dfrac{\log(x+x^2)}{\log x}$ R: 1

$\lim_{x \to 0} (\cos x)^{\frac{1}{x^2}}$ R: $e^{-\frac{1}{2}}$

$\lim_{x \to +\infty} \left(e^{\sqrt{x^2+x}} - e^{\sqrt{x^2-1}}\right)$ R: $+\infty$

$\lim_{x \to 0} (\cos 2x)^{\frac{1}{\operatorname{sen}^2 x}} =$ R: e^{-2}

$\lim_{x \to +\infty} \sin x \left[\log(\sqrt{x}+1) - \log\sqrt{x+1}\right]$ R: 0

$\lim_{x \to 0} \dfrac{e^{x^3} - 1}{x^2 \operatorname{Tg} x}$ R: 1

Al variare di $\alpha \in \mathbb{R}^+$ calcolare

$\lim_{x \to 0^+} (1 - \sin^\alpha x)^{\frac{1}{x}}$ R: $\begin{cases} \alpha = 0 & \ell = 0 \\ \alpha = 1 & e^{-1} \\ \alpha > 1 & 1 \\ \alpha < 1 & \ell = 0 \end{cases}$