

Limiti notevoli.

$$\lim_{x \rightarrow 0} \frac{\sin x}{x} = 1$$

$$\lim_{x \rightarrow 0} \frac{\operatorname{tg} x}{x} = 1$$

$$\lim_{x \rightarrow 0} \frac{1 - \cos x}{x^2} = \frac{1}{2}$$

$$\lim_{x \rightarrow 0} \frac{(1+x)^k - 1}{x} = k \quad (k \in \mathbb{R})$$

$$\lim_{x \rightarrow \infty} \left(1 + \frac{1}{x}\right)^x = e$$

$$\lim_{x \rightarrow \infty} \left(1 + \frac{t}{x}\right)^x = e^t \quad (t \in \mathbb{R})$$

$$\lim_{x \rightarrow 0} \frac{\log_a(1+x)}{x} = \frac{1}{\log a} \quad (a > 0, a \neq 1)$$

$$\lim_{x \rightarrow 0} \frac{\log(1+x)}{x} = 1$$

$$\lim_{x \rightarrow 0} \frac{a^x - 1}{x} = \log a \quad (a > 0)$$

$$\lim_{x \rightarrow 0} \frac{e^x - 1}{x} = 1$$

$$\lim_{x \rightarrow +\infty} \frac{e^x}{x^\alpha} = +\infty$$

$$\lim_{x \rightarrow +\infty} x^\alpha \cdot e^{-x} = 0^+$$

$$\lim_{x \rightarrow +\infty} \frac{\log x}{x^\alpha} = 0^+ \quad (\alpha > 0)$$

$$\lim_{x \rightarrow 0^+} x^\alpha \log x = 0^- \quad (\alpha > 0)$$

$$\lim_{x \rightarrow 1} \frac{\log x}{x-1} = 1$$