

$$\lim_{x \rightarrow +\infty} \frac{a^x}{x^p} = +\infty \quad (a, p \in \mathbb{R})$$

$$\lim_{x \rightarrow +\infty} \frac{\log_a x}{x} = 0 \quad (a > 1, a \in \mathbb{R})$$

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

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

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

$$\lim_{x \rightarrow +\infty} \frac{\sin x}{x} = 0$$

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

$$\lim \left(1 + \frac{1}{n}\right)^n = e \quad (n \in \mathbb{N})$$