

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

$$2. \lim_{x \rightarrow \pm\infty} \left(1 + \frac{1}{x}\right)^x = e$$

$$3. \lim_{x \rightarrow +\infty} \frac{x}{e^x} = 0$$

$$4. \lim_{x \rightarrow +\infty} \frac{\ln x}{x} = 0$$

$$5. \lim_{x \rightarrow +\infty} x^{\frac{1}{x}} = 1$$

$$6. \lim_{x \rightarrow 0^+} x \cdot \ln x = 0$$

$$7. \lim_{x \rightarrow 0^+} x^x = 1$$

$$8. \lim_{x \rightarrow 0} \frac{e^x - 1}{x} = 1$$

$$9. \lim_{x \rightarrow 0} \frac{\ln(1+x)}{x} = 1$$

$$10. \lim_{x \rightarrow 0^+} \left(1 + \frac{1}{x}\right)^x = 1$$

$$11. \lim_{x \rightarrow 0} \frac{1 - \cos x}{x^2} = \frac{1}{2}$$