Limits formulae

$$\lim_{x \to 0} \frac{sin(x)}{x} = 1 \qquad \lim_{x \to 0}(1 + px)^{\frac{1}{x}} = e^p$$

$$\lim_{x \to 0} \frac{x}{sin(x)} = 1 \qquad \lim_{y \to 0} \frac{e^y - 1}{y} = 1$$

$$\lim_{x \to 0} \frac{tan(x)}{x} = 1 \qquad \lim_{y \to 0} \frac{a^y - 1}{y} = ln(a)$$

$$\lim_{x \to 0} \frac{x}{tan(x)} = 1 \qquad \lim_{x \to \infty}(1 + \tfrac{1}{x})^x = e$$

$$\lim_{x \to 0} \frac{1 - cos(x)}{x} = 0 \qquad \lim_{x \to \infty}(1 + \tfrac{p}{x})^x = e^p$$

$$\lim_{x \to 0} \frac{sin^{-1}(x)}{x} = 1 \qquad \lim_{y \to 0} \frac{(1+y)^n - 1}{y} = n$$

$$\lim_{x \to 0} \frac{tan^{-1}(x)}{x} = 1 \qquad \lim_{n \to \infty} \frac{z^n}{n!} = 0$$

$$\lim_{x \to 0} \frac{ln(1+x)}{x} = 1 \qquad \lim_{x \to a} \frac{x^n - a^n}{x - a} = na^{n-1}$$

$$\lim_{x \to 0}(1 + x)^{\frac{1}{x}} = e \qquad \lim_{n \to \infty} x^n = 0, |x| < 1$$

$$\lim_{x \to \alpha} sin^{-1}(x) = sin^{-1}(\alpha), |\alpha| \le 1$$

$$\lim_{x \to \beta} cos^{-1}(x) = cos^{-1}(\beta), |\beta| \le 1$$

$$\lim_{x \to \gamma} tan^{-1}(x) = tan^{-1}(\gamma), |\gamma| < \infty$$